

The evolving role of the school library and information centre in education in digital Europe

A thesis submitted to Middlesex University
in partial fulfilment of the requirements for the degree of Doctor of Philosophy.

Helen Boelens
School of Arts and Education
Middlesex University
December 2010.

Abstract

The purpose of the research is to study the evolving role of the school library and information centre (SLIC) in primary and secondary education in digital Europe, not only in countries where schools have reached an advanced stage of usage of digital technology in education, but also in less advanced schools. This international research provides a bridge between two different disciplines – Comparative Education (Sociology) and Library and Information Science (LIS) – and attempts to provide information to both the educational and library communities throughout Europe regarding the role which SLICs play in the emerging educational global landscape and to determine whether or not these traditional, digital or virtual SLICs, and the work of the school librarian and information specialist, influence the quality of education and improve children's learning outcomes at different levels.

First of all, the study examines a sub-matrix known as the KILM (Kalsbeek Information Literacy Matrix), which was developed as part of an educational matrix between 1997 and 2008 at the Kalsbeek College in Woerden, the Netherlands. The educational matrix attempts to introduce and implement educational reforms, ICT (Information and Communication Technologies) usage, educational technology and new forms of learning throughout the school in a orderly fashion while maintaining a high level of educational quality. This sub-matrix (KILM) identifies the role of the SLIC during the application of the educational matrix.

The study then looks at success criteria which became apparent during the application of the sub-matrix and asks whether or not it would be possible to apply similar strategies to other schools libraries and information centres, firstly at Dutch national level and then in school libraries throughout Europe. The staffing, facilities and conditions in school libraries and information centres which were studied vary greatly, however, thanks to the willingness of teachers, school librarians and (school) library associations to share information and data, it has become possible to identify common problems and present some solutions.

Acknowledgements

My thanks and gratitude go to all those people who provided information and data for this study. In particular, I would like to thank two people who helped in this information search, firstly Mr. Gerald Brown, the International Ambassador of the IASL, who has supported my research from the beginning, and has continuously helped me to find important background information. His knowledge of school library work throughout the world is invaluable. Secondly, my thanks to Dr. Jackie Wolstenholm from the James Cook University Library in Townsville, Queensland who provided a digital copy of Dr. Laurel Anne Clyde's doctoral thesis (Clyde, 1981), thus providing invaluable historical information for this present research.

I would also like to thank my husband Otto and our children, Elisa, Ella and their partners Wim and Paul, and other friends who were always willing to help and provided enthusiastic support. Also, without the educational vision and constant help, support and encouragement of my mentor, colleague and friend Dr. Jaco Schouwenaar, and other colleagues at the Kalsbeek College, this study would not have been possible. Ir. W.F. Konijnenberg has shown infinite patience in processing the statistics. Dr. Victoria de Rijke (Director of Studies) and Ms. Charmain Alleyne from Middlesex University have continuously provided friendliness, help and support, as have my promoters, Dr. Sylvia van de Bunt (Vrije Universiteit, Amsterdam) and Dr. Albert Boekhorst (University of Amsterdam). Thanks for their advice and help during this long period.

Friends and colleagues from ENSIL, in particular the co-ordinator, Mrs. Lourense Das, have also supported me throughout this investigation. Many thanks also to Dutch friends and colleagues from the LWSVO for their encouragement.

Table of contents

	<u>Page</u>
Abstract	1
Acknowledgements	2
Table of Contents	3
Figures	11
Tables	12
Graphs	14
Preface	15
Chapter 1 :	
Introduction	16
<u>Part 1 – Review of the literature</u>	21
Chapter 2 :	
Historical context : Information Ages	21
The first information age	21
The second information age	21
The third (or contemporary) information age	22
The effect of the third information age	23
The effect of the third information age and modern media on children	23
FILTER Network research	24
Chapter 3 :	
Historical context : Role of libraries and school libraries	26
Libraries in the third information age	26
What is a school library?	27
A historical perspective of school libraries	28
The work of Laurel Anne Clyde	28
The work of Nancy Pickering Thomas	30
The work of Valerie Johnson	31
Other library surveys, including surveys of school libraries	32
Other 'school libraries'	33
Chapter 4 :	
Social context : Changes in society during the third information age	36
Social context : European section of this study	37

Chapter 5 :		
	Changes in educational policy : Lifelong learning	38
Chapter 6 :		
	The implementation of changes in education since the 1960's : educational reforms	39
Chapter 7 :		
	The implementation of changes in education since the 1960's: ICT and educational technology	41
	The 'Digital Divide'	41
	Innovators and pioneers	41
	Early adopters	42
	Broad implementation	42
	ICT in the classroom and in other learning environments throughout the school	43
	The ICT infrastructure within the school	46
	Costs	47
Chapter 8 :		
	Changes in teaching and learning : Essential learning skills for the 21 st century	49
	Traditional learning skills	50
	Literacy	50
	Economic dimensions of literacy.	51
	The knowledge of modern foreign languages as a research and communication tool	51
	New literacies.	53
	Important new literacies which are specifically relevant to the work of the school librarian : information literacy, digital literacy, media literacy	56
	21 st Century learning skills	60
Chapter 9 :		
	Changes in teaching and learning : A new kind of learning since the introduction of educational reforms and ICT into schools	61
	Howard Gardner's theories of multiple intelligences (M.I.)	62
	New theories and concepts of learning	63
	Learning to learn	63
	Individual (independent, or learner-based) learning	63
	Co-operative or collaborative learning	64
	Competency-based learning	64
	Inquiry-based learning	65
	Guided Inquiry	65
	E-learning	65

Chapter 10 :

Changes in approaches towards teaching and learning since ICT has been part of the learning process	68
The pupils	68
The teachers	69
Recent developments	76
Research in the Netherlands	77
Research in Belgium (Flanders)	77
Research in Scotland (UK)	78
Other research	78
Criticism of ICT in the classroom	78
Problems which need to be addressed	79
Plagiarism	80

Chapter 11 :

New roles and responsibilities in the new learning environment : Changes in the role of different stakeholders within the school due to the implementation of educational reforms, ICT and new kinds of learning into schools	82
Changes in the role of the learner	82
Changes in the role of the teacher	82
Changes in the role of the school leadership	85
Changes in the role of national policy makers	86
Changes in educational policy : The ICT policy for the use of ICT in schools	86

Chapter 12 :

New expertise for different stakeholders within the school	87
Expertise on the part of the school leadership	87
Expertise on the part of the teachers	87
Expertise on the part of the systems manager	88
Expertise on the part of the school's ICT co-ordinator	88
Expertise on the part of the school librarian and information specialist	88
Expertise on the part of non-teaching staff	88

Chapter 13 :		
	Educational quality and academic achievement	89
	Academic outcomes and academic achievement	90
	How can academic achievement be measured on an international level?	90
	The role of teachers in educational quality and academic achievement	92
	How does the introduction of educational reforms, ICT, educational technology and new forms of learning into schools affect educational quality and academic achievement?	92
Chapter 14 :		
	The impact of ICT on libraries and school libraries : implications for education	93
	A new kind of learning environment	93
	Changes in the school library and information centre (SLIC)	94
Chapter 15 :		
	A new role and new responsibilities for the school librarian and information specialist	96
	New skills which school librarians and information specialists need	98
Chapter 16 :		
	Educational quality, academic achievement and the impact of the school library and information centre (SLIC)	100
Chapter 17 :		
	Other information relevant to the role of libraries and school libraries in education	104
	School library law	104
	The role of international library organisations in supporting the work of school libraries	105
	Cross-border, cross-language and cross-cultural co-operation and communication in Europe	108
	National library associations and national school library associations	108
	Other organisations which promote school librarianship in Europe	109
	European school library projects	110
Chapter 18 :		
	Summary of Part 1	111

<u>Part 2 – Methodology</u>	113
Chapter 19 :	
Methodology	113
Research purpose	113
Limitations of this study	114
Philosophical perspectives	115
Selection of a research design and model	116
Research questions in an international context	117
Research questions : local level	118
Research questions : Dutch national level	118
Research questions : European level	118
Research format	119
Exploratory research : review of the literature	119
Research format : local level	120
Research format : Dutch national level	121
Research format : European level	121
Paradigmatic evaluation model	121
Evaluation at all three levels	123
<u>Part 3 – Research at local, Dutch national and European level</u>	125
Chapter 20 :	
Research at local level: Kalsbeek College, Woerden, the Netherlands	125
Setting for the research	125
Historical background to the educational matrix	127
Democracy within the school	128
Strategy document	130
The educational matrix	131
Historical background : school library and information centre (SLIC)	132
A new school library and information centre (SLIC)	133
Introduction of the Kalsbeek Information Literacy Matrix (KILM) into the school library and information centre (SLIC)	135
Description of the KILM	135
KILM instruction for special projects and Project Weeks	138
Reactions of pupils	138
Important decisions and intervention by the Media Education Committee in the application of the KILM	138
A review of the information and media literacy skills of the teaching staff	139
KILM instruction for the teaching staff	140

Successes and failures of the KILM which have become clear during its application	140
Assessment of the KILM	142
Critical success criteria	143
Answers to the research questions at this level	145
Final observations	145
Chapter 21:	
Research at Dutch national level	146
Theory	146
Introduction	146
Earlier surveys conducted by other researchers	147
The first school library survey (1995)	148
The second school library survey (2001)	150
The third school library survey (2005)	151
Analysis of the data	152
Validation	155
Summary of the results of the third school library survey (2005)	156
Other relevant information relating to the present state of school libraries in Dutch education	156
Co-operation with Public Libraries	157
A short study of multicultural issues and attitudes	157
Curriculum for information literacy skills	158
Mediawijsheid (Media wisdom), Media-educatie (Media education) and Media Literacy	160
Problems in education in the Netherlands : the Dutch debate	160
The 'Brede school'	162
Other new developments relating to the use of ICT (as an educational tool) in the Netherlands	163
Critical success criteria and answers to the research questions at Dutch national level	164
Conclusions	166
Final remarks	169
Chapter 22:	
Research at European level	171
Theory	171
Introduction	171
Background information	172
Which countries should be included in this study?	173
Language	173
Research format : European level	177

Questionnaires and/or surveys	177
First ENSIL survey (2004)	177
Results of the first ENSIL survey (2004)	178
Second ENSIL survey (2005)	182
Other questionnaires	184
Training of school librarians and information specialists (teacher librarians)	186
Design of a paradigmatic model : A report on each individual country in this survey	187
Application of the paradigmatic model and analysis of the data	191
The population of the country and the land area	192
A comparison of the GNI (Gross National Income) per capita in each country	193
Expenditure on education	195
A description of the school system (in so far as it is relevant to this study)	199
Factors which are an indication of academic achievement	204
The introduction of ICT into schools in each individual country, including ICT policy and the use of ICT in the school library and information Centre (SLIC)	211
Media and information literacy objectives per country and the role played by the school library and information centre (SLIC)	222
Specific information about libraries and school libraries and information centres (SLICs), at national and individual level	222
The school librarian and information specialist, including this person's role within the school, qualifications, job description etc.	229
A review and analysis of the paradigmatic differences	229
Validation	230
Interviews	232
Answers to the research questions at European level	232
Critical success factors and conclusions to this study at European level	233
<u>Part 4 – Final Conclusions</u>	240
Chapter 23 :	
Final Conclusions	240
Educational quality and academic achievement	251
A national policy for ICT in education	251
The role of the school leadership	251
The importance of the 'information' (content) side of ICT in schools	252
The importance of definitions	252
Diversity of school libraries throughout Europe	252
Primary and secondary school libraries	252
The effect on the school library and information centre	252

A new learning environment	253
Knowledge management within the school	253
Relationships and co-operation with other libraries	253
Co-operation between national and international organisations	254
Training programmes for the school librarian and information specialist	254
Critical Challenges	254
<u>Part 5 – Recommendations</u>	257
Chapter 24 :	
Recommendations	257
From the point of view of the library world	257
From the point of view of the world of education	258
Appendix I : Data related to local research	
Appendix II : Data related to the Dutch national surveys and research	
Appendix III : Individual country reports	
Appendix IV : Data related to the European surveys	
Appendix V : References	

Figures

		<u>Page</u>
Figure 1	Literature Map, 1	16
Figure 2	Literature Map, 2	17
Figure 3	ICT expenditure : Products and services concerned with ICT in schools – 2009	48
Figure 4	Development of Information Handling : Time Line	57
Figure 5	Development of Information Handling : Information Load	58
Figure 6	Model of how students define the school library in supporting their learning	95
Figure 7	Summary of research: 1997 – 2008	124
Figure 8	Secondary School Structure : Kalsbeek College	126
Figure 9	Summary School Structure : Kalsbeek College	127
Figure 10	Structure of education in the Netherlands	129
Figure 11	Major changes in education in industrialised countries towards the end of the 20 th century	241
Figure 12	Roles and tasks of the various stakeholders during the introduction, implementation and application of ICT into (secondary) schools	242
Figure 12a	Infrastructure : National or State Government Policy and the role of the School Leadership	243
Figure 12b	Infrastructure : Use of ICT within the school	244
Figure 13	Objectives of school libraries and information centres within the school in 2008	245
Figure 14	Application of a broad spectrum of ICT applications plus new and traditional educational concepts to promote effective 21 st century learning	246

Tables

		<u>Page</u>
Table 1	ICT targets	46
Table 2	Teachers working part-time as a percentage of total full-time and part-time teachers (second-level) 2004/05	74
Table 3	Translation of the IFLA/UNESCO <i>School Library Manifesto</i> and the IFLA/UNESCO <i>School Library Guidelines</i> into official and national languages	106
Table 4	Selection of countries for this survey	175
Table 5	Countries which have been included in this study and the official and national languages of these countries	176
Table 6	List of languages which are taken into account in this study	177
Table 7	Countries which returned information for the first ENSIL survey (2004)	181
Table 8	Countries in this study that responded to the IFLA/FAIFE World Report 2007	183
Table 9a.	National school library law, national survey of school libraries and training of school (teacher) librarians. Countries A-K	185
Table 9b	National school library law, national survey of school libraries and training of school (teacher) librarians. Countries L-Z	186
Table 10	Questions asked in the paradigmatic model (final table)	188
Table 10a.	References which were used to answer questions 1-15 in Table 10 for each individual country	189
Table 10b.	References which are used to answer specific questions (16a – 16g) about school libraries, and provide information on education and educational policy in each individual country	190
Table 11	Colour coding: Countries in this study in GNI (Gross National Income) per capita ranking	191
Table 12	The population of each country in this study	192
Table 13	The GNI (Gross National Income) per capita in each country in this study	193
Table 14	Percentage of GDP (Gross Domestic Product) per capita spent on education (last available figure)	195
Table 15	Comparison in rank : % of GDP spent on education by countries in this survey in 2008 and 2001	197
Table 16	Years of compulsory education related to the % of GDP spent on Education	202
Table 17	Years of compulsory education, per country in this study	203
Table 18	Comparison of certain ICT facilities in schools in 2006, for countries in this study	213

Table 19	Percentage of schools, per country, with an internet connection, and the percentage of school libraries with a broad band internet connection	214
Table 20	Number of school libraries reported to this study by different sources and the percentage of schools with computers in the school libraries	216
Table 21	Percentage of schools with computers in classrooms, 2006 and 2001	217
Table 22	Total percentage of teachers who used computers in the class in the last twelve months, including European ranking	221
Table 23	Reported number of school libraries : 2007/2008 (in countries in this study)	223
Table 24	Reported number of school libraries in countries from the former U.S.S.R and in countries which came under Communist influence after World War 2	225
Table 25	Adult literacy statistics per country, 2007 or 2008 (or last available figure)	228
Table 26	Participation in international school library surveys, per country	231

Graphs

		<u>Page</u>
Graph 1	Expenditures on education, published in 2001 and 2008	199
Graph 2	Comparison of actual PIRLS scores in reading in Europe in 2001 and 2006 (of countries which are included in this study)	205
Graph 3	Comparison of actual PISA scores in reading in Europe in 2003 and 2006 (of countries which are included in this study)	207
Graph 4	European ranking per country in this study : PISA and PIRLS testing (in reading) 2006	210
Graph 5	Percentage of GDP spent on education in 2008 or last available figure related to the availability of computers per 100 pupils and the PIRLS ranking in 2006	218
Graph 6	Percentage of GDP spent on education in 2008 or last available figure related to the availability of computers per 100 pupils and the PISA ranking in 2006	219
Graph 7	European ranking per capita of GDP in 2008 (or last available figure) related to the percentage of GDP spent on education in 2008 (or last available figure) and the availability of computers per 100 pupils in 2006	220

Preface

This international research attempts to review the impact of the school library and information centre (SLIC) and the person who works in this place - the school librarian and information specialist - on the quality of education at local, Dutch national and European level. Since definitions of these terms often vary from country to country and sometimes even from school to school, it has been most important to clearly define what the school library and information centre (SLIC) actually is, and how it is staffed (discussed in detail in Chapter 3, page 27 and page 33). The use of the terms 'school library' and 'school librarian' in some local, national and international literature, studies and reports is also queried.

In 1997, the writer was employed by the Kalsbeek College in Woerden, the Netherlands. At that time, a series of important changes in education were taking place throughout the world. These changes, described in detail in Part 1, were the introduction and implementation of educational reforms, ICT usage and new forms of learning. Also discussions were taking place at different levels regarding the importance of lifelong learning skills which pupils would need as productive citizens in 21st century society.

During the 2000-2001 (August 2000 – June 2001) school year, Dr. Jaco Schouwenaar, the Director of the HAVO-VWO department of the school, started to develop an educational matrix, in order to facilitate and introduce these changes in an orderly fashion throughout the entire school, while at the same time maintaining a high level of educational quality. At that time, the writer was instructed by the school directors to study and examine the situation which existed within the school library and information centre (SLIC) at the school, and to implement the changes which would be needed so that the SLIC could play an effective part in the changing educational process throughout the school. It should play an integral part in the application of the curriculum and in the educational matrix. An insight into both education (pedagogy) and library and information science (LIS) was needed. The vision which motivated the changes which were implemented in the SLIC has been described in a sub-matrix known as the Kalsbeek Information Literacy Matrix (KILM), and is explained in detail Chapter 20.

International interest in the work carried out at the Kalsbeek College resulted in an extension to the study at European and Dutch national level, which has taken place over a period of more than 10 years. During that period (1997 – 2008), the researcher was actively involved on a daily basis in the developments and changes which took place at the Kalsbeek College.

Chapter 1 : Introduction

A review of the literature was carried out at international level in English and Dutch, from 1997 to 2008, in order to provide background information in both disciplines – comparative education and library and information science (LIS). It sets the stage for research at local level (Chapter 20), Dutch national level (Chapter 21) and European level (Chapter 22).

Cresswell (2009, p. 35) advocates the use of an illustration to describe the way in which the literature for a study has been reviewed. He calls this a 'Literature Map', which describes the complex set of circumstances and factors which needed to be examined before the research questions could be answered. For this reason, Figures 1 and 2 appear below.

Figure 1 – Literature Map 1

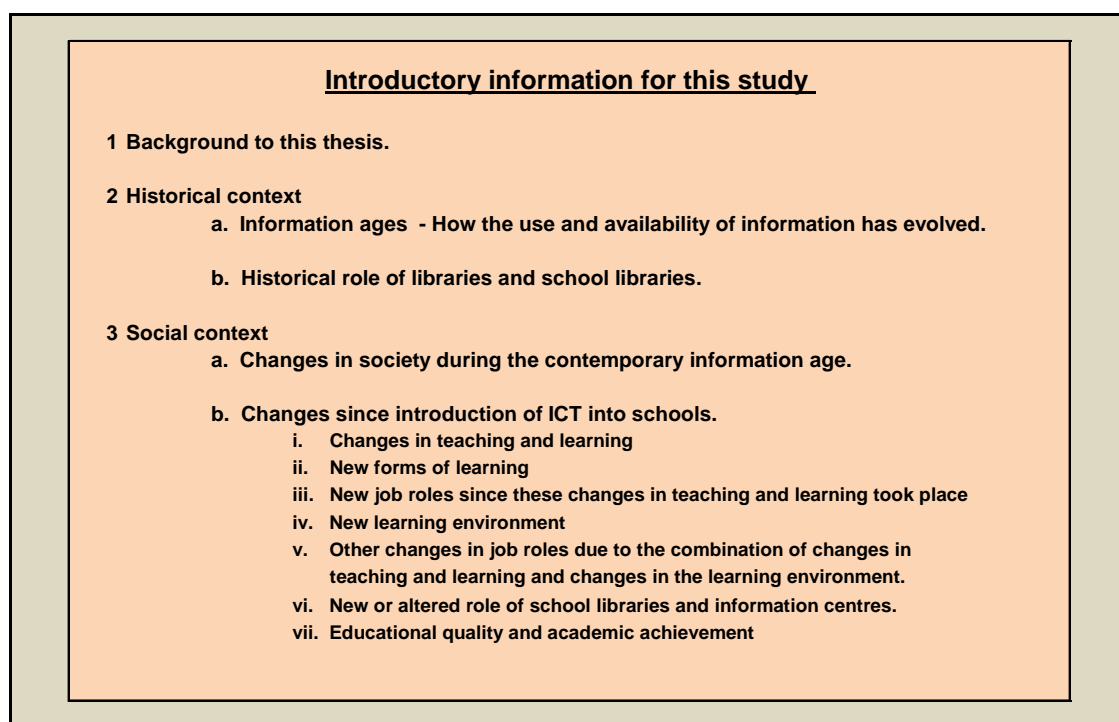
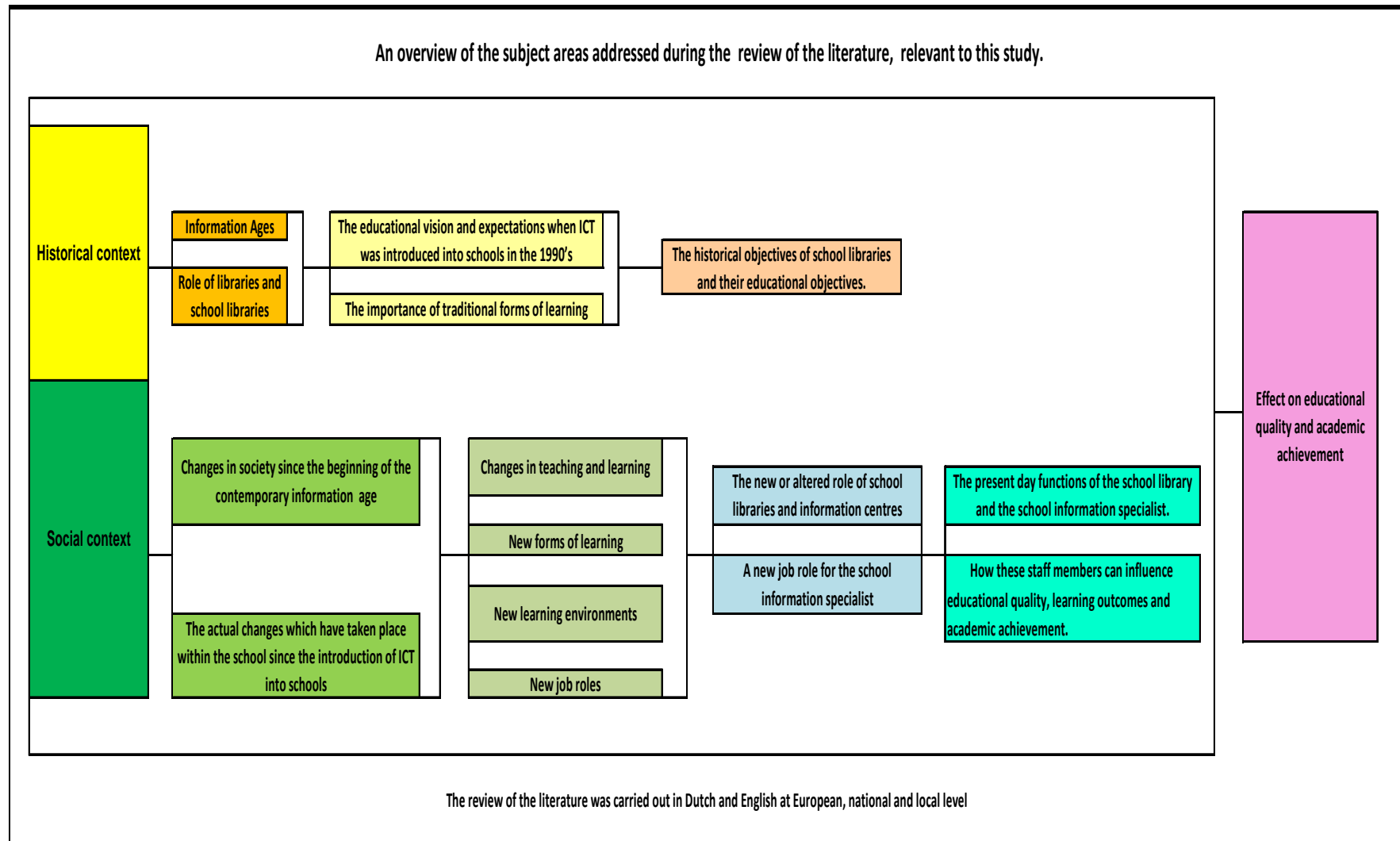


Figure 2 – Literature Map 2



Towards the end of the twentieth century, certain factors caused major changes in education throughout Europe: educational reforms, the introduction and usage of Information and Communication Technologies (ICT) and the application of educational technology into the teaching process. These changes were influential in the evolution of new forms of learning, and affected the educational process, are described in Part 1, Chapters 5, 6, 7, 8 and 9.

All would agree that ICT is now an integral part of our society, and must be implemented into schools in an effective way. The use of ICT in schools was accompanied by a sense of excitement. It provided a multitude of possibilities, not only for teaching and learning, for managerial and administrative tasks, for communication, for entertainment, but also for the implementation of new pedagogical concepts and ideas. This has been a costly business. Governments and school leaders have done their best to provide new facilities, dependent upon their educational vision and the funds which are at their disposal. Some teachers felt confident with the use of ICT, others did not – in fact they found it ‘scary’ (Veen, 2003), (Williams and Wavell, 2006). According to Becta, (2008), pupils enjoy using ICT in their lessons. Learning has become more fun (Davies and Birmingham, 2002). Although it may be fairly simple to review the implementation of ICT into schools on a national basis, it is more difficult to do this on an international basis. It remains to be seen whether or not the application of ICT as an educational tool enhances educational quality and academic achievement.

According to the OECD (Organisation for Economic Co-operation and Development), (2008, p. 1) schools are established for the following reasons and to achieve the following goals:

- ‘Socialization: Understanding background, culture and values. Become good citizens;
- Vocational: Fitness for further education and employment;
- Personal Fulfilment: Individual growth and understanding;
- Transformative: Knowledge to transform society, mend the world’s ills, providing for equality of opportunity. ...

The stakeholders are:

- Students and Parents: Looking for individual success.
- Governments: An educated workforce –economic growth & good citizenship.
- Employers: An ‘educated’ workforce –3Rs + teamwork and critical thinking skills’.

Parents, teachers and politicians would agree with Commission of the European Communities, (2007) and the Ministry of Education, Government of Canada, (2008) that the purpose of schools is to educate pupils to fulfil their potential and to prepare

them to take their place in modern society. The investment of public funding to implement technology in education would insinuate an expectation of economic advantages and an increase in educational quality and academic achievement.

Chapter 20 of this dissertation describes how these changes in the educational process were approached at the Kalsbeek College in Woerden, the Netherlands (a large secondary, comprehensive school with a total of approximately 2,500 pupils). By placing emphasis on the SLIC, school leaders hoped that the changes which were taking place in education could be implemented effectively, in a constructive way. A sub-matrix known as the KILM (Kalsbeek Information Literacy Matrix), which placed the SLIC at the heart of the curriculum and the learning environment within the school, as described by Boekhorst and Van Veen (1996a), was gradually developed and implemented throughout the school. It is an integral part of the educational matrix, which aims to expedite the implementation of educational reforms, new forms of learning and the use of ICT throughout the school in a constructive way. The ultimate objectives are an increase in educational quality and academic achievement.

Research at European level was prompted in April 2003, at the inaugural meeting of the ENSIL Foundation (ENSIL, 2008). Delegates expressed interest in the study which was taking place at the Kalsbeek College, and more specifically in the KILM. The researcher agreed to enlarge the study, to see if it would be possible to implement the KILM into other school libraries in different countries throughout Europe, using the facilities which were currently available in those school libraries. This research has been carried out on a voluntary basis. No funding from ENSIL or other grants or bursaries have been received. All university fees and travel costs during field trips have been paid by the researcher from her own pocket. The researcher was motivated by a passion for teaching and for school librarianship and by the responsibility of care for the pupils who will hopefully benefit from this research. Chapter 22 clarifies this European research and explains the conclusions which were reached.

In 2005, the Open University of the Netherlands, in co-operation with the LWSVO (Dutch Working Group of School Librarians in Secondary Education), carried out a (third) national survey into the work of secondary school librarians in the Netherlands. The writer was asked to be part of this research team, once again on a purely voluntary basis. One of the objectives of this research at national level was to find out whether conditions exist in the average secondary school in the Netherlands for the implementation of the KILM. The conclusions which were reached appear in Chapter 21.

A local research project became a study at Dutch national and European level. This dissertation therefore combines information and results at three different levels. An attempt will be made to show to what extent the actual SLIC and its staff affect the educational quality throughout the school, at all three levels.

Part 1 – Review of the Literature

Chapter 2 : Historical context : Information Ages

In their history of information technology, Hobart and Schiffman (1998) speak of three information ages. According to them, we now live in the third information age.

The first information age Three distinct revolutions in the technology of information storage took place, beginning with the ancient Sumerians and the development of cuneiform, and later the invention of alphabetic writing. Writing and keeping written records freed the mind from the burden of memorising both stories and information. No longer was it necessary and essential to communicate verbally. Thus the concept of information was created (Hobart and Schiffman, 1998).

The invention of the alphabet inspired the ancient Greeks to experiment with language and its relationship to experience. Stories such as myths were written down. People became fascinated by the writing of the great Greek philosophers and began to question the social order. Perhaps the first information age was responsible for social change.

Casson (2001) describes the great libraries of the ancient world, providing information about the content of the library collections and how these collections were acquired. He also asks and answers interesting questions, such as: What was the historical connection between the rise in education and literacy and the growth of libraries?, and concludes that libraries have historically had a positive effect on the quality of education and on literacy. Later this thesis will provide evidence that regardless of many changes which have taken place, these conclusions are still relevant to library work today.

The second information age Printing catalysed the emergence of the second information age and created an information explosion (Hobart and Schiffman, 1998). The printing press has been implicated in the Reformation, the Renaissance and the Scientific Revolution (Dewar, 1998, p. 2). The outpouring of printed books caused an information overload. Since scholars complained about the overabundance of books and printed material and the need to be selective in the books which they read, they devised shortcuts including the use of the alphabetical index (Blair, 2003). Other important precedents during the years 1550-1750 as described by Rosenberg (2003), stating, as with any quantitative measures, perceptions of information overload are connected to the ways in which knowledge is represented. People had access to a

much wider range of new texts, ideas or facts than ever before. During the Renaissance, commonplace books were published on a wide variety of topics and became available to more and more people. People became literate (Hobart and Schiffman, 1998). In turn, access to a wider range of information once again caused social change. In fact, Blair (2003) even mentions that seventeenth century French scholars feared that the multitude of books would make their society fall into an uncivilized state.

The third (or contemporary) information age According to Hobart and Schiffman (1998, p, 107), 'an analytical vision of knowledge' has produced the third information age, the contemporary age of computers, where information no longer offers an abstract model of the world but has become a world of its own. The conjunction of analytical symbols and digital technology has resulted both in fresh ways of expressing information and in new forms of information itself. Our contemporary information age has its roots in numeracy.

During the 1960's, it became possible to store information digitally in the electronic circuits of the digital computer. Dewar (1998, p. 4) writes that 'networked computers define the (current) information age'. According to Weggeman (2007), we now live in a world where there is an information superhighway and are deluged with information, accumulating by the millisecond, in traditional and electronic forms. The Information Superhighway has become a broad term used for the many emerging and existing paths for accessing electronic information. Resnick, Zeckhauser and Avery (1994) argue that this information superhighway which includes computer networks, electronic mail, enhanced cable TV systems, electronic shopping and banking, etc., connects millions of people. The amount of information which is available on a world-wide basis continues to increase rapidly, especially in countries such as India and China. According to Internet World Stats (2009), in December 1995 16 million people (0.4% of the world's population had access to the Internet. In March 2009, this had increased to 1,596 million people (23.8% of the world's population). In 2008, Europe (using a list of 52 countries) had a population of 803,903,540 people (i.e. 12% of the world's population); 393,373,398 of these people were Internet users (48.9% of the population). The amount of information being produced on a world-wide basis is expected to keep on increasing rapidly (Lesk, 1997), Lyman and Varian, 2003), (Williams, 2000), and (Loy, 1999). Also, thanks to new ICT software and virtually cost-free publication on the World Wide Web (WWW), information is continuously being presented in many new formats (Hansson, 2005). People have difficulty in coping with

the increasing amount and reliability of information which is available and experience problems such as overtiredness, headaches and depression. In the Netherlands, the terms 'infostress' or 'information overload' are currently being used to describe these difficulties (Brandhof, 1998).

Wright (2007) ambitiously attempts to explain the way people have used information since the beginning of time and suggests that even though the amount of information which is available in the third information age is enormous and increasing daily, people unthinkingly use organisational dynamics, as they have done throughout human history. As people make use of information on a daily basis, and find their way online: 'they seem to coalesce into small groups'. This is verified by the present use of Web 2.0 communication software, where blogs, list-serves and hives are used to supply each other with information. The hierarchical structure of these small groups and the reliability of the information which is being collected and used must be questioned. Wright believes that, for this reason, the end result may be a complete change in our cultural and ethical beliefs and thinking.

[The effect of the third information age](#) Patton (2008, page 5) observes:

'Our age – the age of information, knowledge and communication – has developed the capacity to communicate massive amounts of information. The problem is keeping up with it, striking out, absorbing, prioritizing and using information. Our technical capacity for gathering and computerizing information now far exceeds our human ability to process and make sense out of it all. We're constantly faced with deciding what's worth knowing and what to ignore. ... the challenge we face is not producing knowledge but the even greater challenge of getting people to use the knowledge we produce'.

[The effect of the third information age and modern media on children](#)

One negative and one positive approach to the effect which the third information age and modern media has had on children will be presented below. Based on neuropsychological research, Healy (1990) attempts to analyse educational practices. She traces the roots of the present crisis in education and examines how modern media compromise children's ability to concentrate and to absorb and analyse information. The ability to reflect is an essential research skill, which is recognised during the application of the KILM. Healy's 'new intelligences' claim that mental abilities for the future should include widened perspectives, a broader range of skills, and a great deal of open-ended imagination. She asks: 'What kind of intelligences should be encouraged in children who will live in a world where machines (computers) do most of the thinking? What will happen to children's interpersonal and emotional development? What will happen to children's oral language skills, since personal communication is the basis for reading and writing?' According to Healy (1990), the

mind has the potential to expand itself so that it can absorb the important 'old' skills and still have room for the new skills which are demanded in the 21st century. Gardner's theories of 'new-' or 'multiple intelligences' (M.I.) (Gardner, 2006), which are relevant to Healy's theories, will be examined later (Chapter 9, page 62).

According to Papert (1993), the (third) information age could also be called the age of learning. Across the world, children have entered a passionate and enduring love affair with the computer and use it as a learning tool. The technological revolution has been responsible for an acute need for better learning and has also offered the means to take effective action. Chapter 9 examines these new forms of learning and the effect which they have on educational quality. This thesis will attempt to find out whether the need for better learning has been successfully met. Although children use the computer as a learning tool, the extent of their actual learning must be examined. When does the expertise (and physical presence) of a teacher or coach become essential, in order to extend this learning? UNESCO (2002b) discusses some of these questions. Time will help to clarify these issues, although the Kennisnet study in the Netherlands shows that traditional learning skills and new learning skills need to be in balance (Kennisnet, 2006). It concludes that there should be a balance between the following four aspects of the use of ICT in education: knowledge and skills; ICT-infrastructure; educational software and content; and vision. Kennisnet, (2006, p. 3), makes the following statement:

'Until recently, ITC managers have above all focused their attention on the purchasing of hardware and educational software and content. These are the technical building blocks of Four in Balance. These technical building blocks can be acquired through a Financial transaction. One important lesson that can be learned from the experiences acquired over the last few years is that the successful introduction of ICT is no longer a question of more computers or additional educational software and content. Sufficient attention should also be focused on the social building blocks'

It states that, in the coming years, school policy should focus on the use of ICT for improvements in educational quality. In order to do this, school leaders need to be aware that priority should be given to the didactical knowledge and skills of teachers.

[FILTER Network Research](#) Research into the effect of the third or contemporary information age was carried out by the FILTER network (supported by the European Commission, Directorate General Education and Culture, The eLearning Initiative), and is described by Bunt-Kokhuis (2006a). This research was carried out not only by academics and professional teachers but also by ICT professionals from commercial organisations from different countries within Europe. The publication discusses economic and cultural filtering carried out by search engines and the

reliability, accessibility and affordability of online learning. The introductory statement for the FILTER Closing Event (Filter, 2006, p. 1) begins as follows:

'The amount of information that is online and potentially relevant to lifelong learners is enormous. Finding, selecting and judging relevant online content are important competencies in a world where lifelong learning is becoming a must. In practice, online content is the subject of economic, language and cultural filtering, arising from design features such as browsers, commercial search engines, portals, and intellectual property protected software. Local knowledge becomes more vulnerable and less easy to find on the web. Filtering of online content may affect the mind-map of e-learners and diminish the independence of their opinions in school, university or the workplace.'

Bunt-Kokhuis (2006b, p. 1) states:

'Most of us use Google every day, for both our work and for private reasons. If we need information, we should be able to find it in Google. This is our unconscious starting point. But do you know how Google searches and what Google filters? Is that what you want – that information is filtered for you? Which sources, which cultures, which languages are not (or only partially) made available via the most commonly used search engines? Are we really aware of this and how can we best react to this situation?'

This thesis has attempted to apply the research findings of the FILTER project to a practical educational context (Boelens, 2006a and Boelens, 2006b), as a tool for lifelong learning.

Chapter 3 : Historical context : Role of libraries and school libraries

Libraries in the third information age Chapter 2 has discussed the rise of the information society and the amount of information which is now available and increasing daily. Libraries and trained library professionals are also going through a period of transition, causing a change in the services which libraries provide.

Tolzmann (2001, p. 145) calls libraries ‘the memories of mankind’ and describes the changes which have taken place in libraries from the middle of the 20th century to the present. His survey provides the context for the advent of the information age, which brought dramatic and profound changes in the world of libraries.

‘Some advocated the creation of a ‘paperless’ society and foresaw the end of the era of books and libraries and the creation of virtual libraries, which would embrace all that could be found in the world’s libraries and archives Most, however, viewed the information age practically in terms of the benefits provided in the accessing of information on a heretofore unimaginable scale ... the new age was becoming one which would not replace libraries and books, but rather greatly enhance and facilitate accessing them.’ (p. 156) ...

‘As information and how to access it becomes an increasingly important item, it has also become increasingly of (monetary) value.’ (p. 157).

Bunt-Kokhuis (2006a) confirms this statement. Also, Line (1993, p. 77) believes that, because of the enormous increase in the amount of available information (in both traditional and digital form), libraries become perhaps even more important. He describes libraries in 2015 as follows:

‘Printed books and journals will then still exist alongside a variety of electronic media that can be acquired via online access. Information media, whether available in printed or electronic form, will need to be kept and made available somewhere, and libraries (or whatever they are called in A.D. 2015) will continue to serve this function. There is no other sort of body equally fitted to do so, and it would be pointless to invent one’.

Mackenzie Owen (1997, p. 1) describes the future role of libraries as:

Selection: selecting and acquiring available information in the marketplace, based on user needs and quality standards, within the available budget.

Storage: maintaining the availability of publications through long-term storage and preservation.

Service: making the information resources available through facilities and procedures for on-site consultation, lending and document delivery.

Support: giving the user guidance and assistance, including the development and maintenance of support systems such as catalogues, on-line help systems etc.

The dominant factor in the development of libraries is the ongoing move towards digital distribution of information through the global network infrastructure. This implies a shift from the traditional role of the library as a ‘clearing house’ and service centre for printed

publications, towards a role as a supplier of networked services for digital information resources.'

During the international EduSummIT (2009), statements were made that library and information science has become an integral part of ICT. These claims and statements should be thoroughly investigated in a further study.

What is a school library? This dissertation studies the school library and information centre (SLIC) and the person who works in this place - the school librarian and information specialist. The terms: school librarian, school documentalist, school media specialist, teacher librarian and/or school information specialist are used in this dissertation and in the literature to refer to this person. The SLIC it also described in many different ways, including the school library and resource centre, the school media centre, the Mediatheek (Dutch) – the term often varies from one country to another.

This research required a clear, quality definition and description of the school library and information centre (SLIC) in a European, national and local context. How do people, and specifically educators in the 21st century, define a SLIC? What do they believe that its objectives are? Problems which arose because of unclear definitions are also described throughout Chapters 21 and 22. Although guidelines have been created which describe a national perspective for a 'good' SLIC in a number of countries including the USA (AASL and AECT, 1998), the United Kingdom (Barrett and Douglas, (2004), and Australia (ASLA, 2008, ASLA and ALIS, 2001), this present study requires a definition which has been created and accepted by the international community. Woolls and Loertscher (2006) describe and discuss these problems. During this research, a decision was made to make use of the international guidelines, published jointly by the IFLA (The International Federation of Library Associations and Institutions) and UNESCO (United Nations Educational, Scientific and Cultural Organization). These international guidelines, definitions and/or descriptions are the *School Library Manifesto* (IFLA/UNESCO 1999) and the *School Library Guidelines* (IFLA/UNESCO 2002), which have been prepared for school libraries throughout the world. They are applicable to all school libraries, not only to those with good facilities, and are intended as a 'goal' to be reached by school libraries, on an international basis. Table 3, page 106 provides information about the availability of these documents in different languages. During the research, these international definitions were used during the preparation of different questionnaires, in an attempt to measure school library quality. An IFLA publication: *Measuring quality: Performance Measurements in Libraries*, 2nd revised edition (Poll and Boekhorst, 2007) does not specifically mention

quality standards for school libraries, nevertheless this publication does provide a list of indicators for other kinds of libraries, such as resources, infrastructure, use, efficiency, potentials and development. These indicators have also been applied to school libraries in this present research. *School Libraries Work!* (2008, p. 4) makes the following statement:

'School libraries are no longer just for books. Instead, they have become sophisticated 21st century learning environments offering a full range of print and electronic resources that provide equal learning opportunities to all students, regardless of the socio-economic or education levels of the community, but only when they are staffed by qualified professionals trained to collaborate with teachers and engage students meaningfully with information that matters to them both in the classroom and in the real world'.

This present study will provide evidence which shows that the SLIC and the work of the school librarian and information specialist have an essential role within the present day school community. The SLIC must not only function effectively as a library - it is a learning environment which is part of two different processes – the educational process and the library (or information services) process. Both processes have some say in how school libraries and information centres should function ¹.

[A historical perspective of school libraries](#) An information search for historical background information about school libraries throughout Europe showed that some current trends and attitudes towards school librarianship in (some countries in) Europe can be related to the historical background. Gates (1968, p. 166) explains how the school library developed up until 1960 'since a look at its history may shed some light on why it has grown as it has and why its current status is what it is'. He states:

'The purpose of school libraries has always been to support instruction in the school; this ignores the fact that school libraries were often established for other purposes unrelated to school instruction, as, for instance, meeting the recreational reading needs of the children, or the needs of adult members of the community'.

Although much has been written about the way in which school libraries came into being, this research summarizes the work of certain well-known school library historians and uses this as the primary background material.

[The work of Laurel Anne Clyde](#) In 1981, Clyde published a comprehensive history of school librarianship in the United Kingdom, the United States of America and Australia, from the 8th to the 20th century. It is crucial to this present study because it

¹ See Figure 12, page 242.

provides important definitions that make comparisons possible at three different levels: European level, Dutch national level and local level. Clyde (198, p. 2) states:

'While the school library is a widely occurring institution which most people readily identify and understand, its history tends to be treated in the literature as a subsidiary part of the history of the public or children's library, or as minor aspect of educational history.'

This thesis questions whether or not the school library (throughout Europe) is, in actual fact, readily identified and understood by participants in the educational process and in the library process. Do they all have a similar vision of what a school library actually is?

According to Clyde, during the twentieth century school libraries, like education itself, were increasingly the subject of government and professional inquiry and of legislative action; goals for the development of school libraries were defined (in some countries). The first Schools of Librarianship were established, the amount of available professional literature increased and the problems of (school) library organisation and management were investigated more critically. Clyde (1981, p. 297) discusses the development of schools of librarianship in Great Britain, in the period to 1945, as follows:

'One area in which a new need was identified was trained manpower in the school library. ... (however) there was a great deal of ambivalence on this in the standards themselves. Even today (in 1981) ... (at international level) there is still considerable disagreement about what education and training is seen as desirable for such people (school librarians or teacher librarians), and considerable variation in the educational backgrounds of people employed in such positions. ... Three types of school librarians emerged in the United States and in Great Britain, ... all three gaining some degree of acceptance:

1. the teacher librarian who had undertaken a full course in teacher training plus a full professional course in librarianship or school librarianship;
2. the librarian who brought professional library qualifications to the work of the school library;
3. the teacher in charge of the library, part- or full-time, often with a considerable teaching load, and usually with only a short course completed (anything from a week to a semester) in school library organisation.

Many people in charge of school libraries throughout the twentieth century had no library qualifications at all'.

Information which could be located about the present day training of school librarians, per country, is contained in each individual country report in Appendix III.

According to Clyde (1981, p. 298):

'In Great Britain and the United States, in the twentieth century, library services to schools were provided by Public Libraries. These services varied from the mere provision of juvenile collections, to the encouragement of library visits by classes from local schools, and usually some library instruction to those classes, the provision of special collections for teachers, the provision of a reference and loan collection within the school itself for the use of pupils and teachers'.

School libraries in primary schools were developed for a variety of reasons, including the provision of recreational materials, the encouragement of reading to develop 'the reading habit' in children, and the provision of reference books and curriculum-related materials'. She also states that:

'It is possible that little attention has been paid to the school library in historical studies because it has traditionally been seen as playing a dependent role in both education and librarianship. Its budget, for instance, usually forms only a small part of that of the school or of the public library authority, and its staff, when provided at all, has generally been less well qualified than either the school teaching staff or the public library staff, until well into the 20th century.' (Clyde, 1981, p. 2-3).

From a European perspective, Clyde's historical study provides background information about school libraries in the United Kingdom only. It has been difficult to locate historical information about school libraries in other parts of Europe, especially in those countries where English is not the national or official language. When historical background information about school libraries in the 61 countries in this study was actually located, it was placed in each individual country report (described in Chapter 22, page 187).

[The work of Nancy Pickering Thomas](#) (2004) describes the history of school librarianship in North America, and explains the potential of the school library to make contributions to the educational environment within the school. This potential was realised quite early by leaders in education. Thomas describes the development of school libraries in considerable detail, up until the 1990's and also explains how school librarians became part of the teaching staff. According to Thomas, because of budgetary cuts in education during 1970's, school librarians needed to justify their programmes. After they had done so, school districts were persuaded to promote them so that they became members of the teaching staff. This in turn resulted in the introduction of formal programmes of library instruction. In general, the overall goal of library instruction in 1970 – 1980 was to make students self-sufficient users of information. According to Thomas, some practitioners and scholars were interested in the concept of information handling and started to look at the relationship between

information and learning. Thomas provides information about the link between the (former) use of school libraries (as the place which originally provided supplementary instruction and promoted reading), and the new school library and information centre, which has evolved into a new learning environment within the school, with both traditional and new goals.

[The work of Valerie Johnson](#) Up until 1930, many Australian children were provided with reading materials by kind schoolteachers and other people. During the period 1930 – 1950, changes in educational philosophies created in increasing need for general reading materials and information resources. As a result, the public demanded and lobbied for better school libraries. The government was pressured to change its policies towards school libraries and to improve funding and as a result, school library services were vastly improved (Johnson, 2007).

In 1964, Professor Sara Fenwick, a Fulbright lecturer from the University of Chicago Graduate Library School spent six months in Australia surveying school and public library services to children. Fenwick identified major problems, such as the lack of funding and the lack of trained specialist librarians. Another factor which she identified was the lack of co-operation between school libraries and public libraries. The Fenwick Report had a significant impact on the provision of library services to children in the 1970s. Johnson concludes that at the beginning of the 21st century children's library services still face these three major issues which were identified in Fenwick's report (Johnson, 2007).

Hall (1915, pp. 627-632) states that 'modern school library would have to fulfil all its proper pedagogical functions as a reference collection for obtaining information, a laboratory for special topic work ... [and] be a place of inspiration and recreation as well'.

Ray (1978), Ray (1979) and Singh (1993) provide historical background information about the development of school libraries in Europe and in other parts of the world. The volume edited by Howard (1998) provides a very clear description of the history of school librarianship and the education of school librarians in North America from 1900. She describes the history of school library media state certification and also describes the impact of (new) technology on the school library media centre. In the last chapter, she discusses the international challenges for the school library and the global goals which should be considered. These challenges are (partially) made possible by the introduction of ICT within the schools.

Other library surveys, including surveys of school libraries During the review of the literature, three other international surveys of libraries (which included school libraries) were located. In 1993, Singh published his doctoral dissertation entitled *An international comparative study of school libraries* (Singh, 1993). This study, which compared school libraries on a world-wide basis, covered both primary and secondary schools. Twenty three European countries took part in this investigation. Singh approached Missions to the United Nations and asked them to appoint an expert to complete the survey for each country. It was not specified whether this chosen expert should be part of (work in) the library process or the educational process. Therefore, although there was good co-operation on this survey, it is unclear whether the interviewees were library or educational experts. Also this survey contains information about the kind of 'school libraries' which are mentioned later in this chapter on page 33. Singh's study took the form of a traditional (quantitative) library survey. It asked questions about the numbers of school libraries in each country, the specific facilities which were available and contents of the library collections. The actual quality of these facilities is unclear. When Singh's study was carried out, it could be said that the true implications of the introduction of ICT into the school and into the school library were not yet evident. Also, the important IFLA/UNESCO documents (IFLA/UNESCO, 1999 and 2002) which give important support to school librarianship throughout the world had not yet been published. However it is possible to compare some of the aspects of Singh's study with this present study, especially the first ENSIL survey.

In 2000, LibEcon published a *Millennium Study of Library Economics in Europe* (LibEcon, 2000). Chapter 8 of this particular study was concerned with school libraries. 31 countries in Europe took part. Once again, no definition was provided for a school library. This means that, in some cases, information was provided about the 'school libraries' (page 33). The LibEcon study is an important study for this present research, as it confirms the difficulties in obtaining reliable international data about school libraries. Most surprisingly, a careful review of the actual statistics from this study shows that the researchers actually projected (or estimated) figures on school libraries in some countries, providing figures for countries which have no school library tradition. This is confirmed by an E-mail from the LibEcon researchers. In many cases countries which did not return information about school libraries to the LibEcon survey also failed to return information to the ENSIL surveys. This helps to confirm that at least some of these countries have no school library tradition.

In 2006, UNESCO, Institute of Statistics, carried out a pilot survey of academic and public libraries (UNESCO, 2006c). Because school libraries were not included in this survey, UNESCO was contacted via E-mail (Mr. Georges Boade and later Mr. Simon Ellis, the project leader) and asked why school libraries had been excluded. Mr. Boade replied that although school libraries are important libraries, past UIS experience confirmed that there are many problems in the collection of data about libraries at national level. UIS carried out the pilot survey of academic and public libraries in a relatively small number of countries, in order to see whether or not there are signs of improvement in data availability in these kinds of libraries, but unfortunately this is not the case. However Boade concluded by saying that thanks to this recent small survey, UIS is able to evaluate the challenges which would have to be faced in data collection for all countries and for all types of libraries. Contact was then sought with the UNESCO project leader, Mr. Simon Ellis. Once more, the importance of the inclusion of school libraries in international surveys was reiterated. Ellis was informed that a number of national school library associations are now holding national online surveys resulting in new statistics on school libraries at national level in some countries. Ellis replied that while he shares enthusiasm for school libraries and agrees on their importance, UIS collects data which is likely to be available for the majority of countries in the world. While it may well be that some OECD countries now have such statistics, he does not believe that the majority of non-OECD countries have such (reliable) data. Ellis concluded that 'the indicators would likely suggest that, where libraries exist in schools, the majority of pupils, controlled by literacy rates, do indeed use school libraries. Equally we would be able to judge number of volumes but not relevance to school curricula. ...' Problems in collecting reliable qualitative data have also been encountered during this research at European level.

Other 'school libraries' In this dissertation, importance is placed on definitions for the term 'school library' or 'school librarian'. The term 'school library' (using quotations) is sometimes used for (alternative) establishments which do not fulfil certain criteria. Similarly, the term 'school librarian' (using quotations) is sometimes used for volunteers or unqualified clerical staff, who once again do not fulfil the definition of a school librarian, as used in this dissertation (see page 27).

Although Clyde (1981,) is quoted above (page 29) as saying that 'the school library is a widely occurring institution which most people readily identify and understand', this may not necessarily be the case. Many different kinds of (primary) 'school libraries' which were established in an attempt to foster the academic

achievement of pupils, have been described during informal interviews and school visits. The creation of a 'school library' was often left to the autonomy of teachers and school leaders who set up facilities which they describe as 'school libraries'. These are often collections of books within the school; sometimes a box of books in a classroom, in other instances a cupboard or bookcase located elsewhere in the school. Children are encouraged to read the books in the box or cupboard and to change the books regularly.

According to Brown (1970, p. 5), 'a small collection of books in a classroom is not a library and a hard working teacher who is allowed a few hours per week for 'library periods' is not a librarian. The existence of such collections of books, wrongly called libraries, often precludes the setting up of real libraries ... Though notable exceptions exist, many schools have only small collections of books which cannot be considered libraries'.

During visits to many different schools throughout Europe, it became apparent that these collections vary considerably. They may consist of old, (dirty, dusty) out-of-date books or textbooks which have been circulated throughout the school for many years. In other schools, new books are purchased from time to time and added to the 'library'. Collections of books which are specifically used for school projects are sometimes referred to as a 'documentation centre'. The staffing for these 'school libraries' varies greatly. The skills of a trained (school) librarian are seldom used. Sometimes volunteers come to the school once or twice a week to help children change their books, while in other schools, the administration is carried out by older pupils. A teacher is usually responsible for this 'school library', which more often than not has a very limited budget.

These 'school libraries' may receive assistance from the local School Library Service (SLS) which is run by the local public, provincial or state library, and which provides books to the school in the form of collections which are changed from time to time. The school often pays a fee for this service. The School Library Service also coordinates visits of school pupils to the public library, perhaps once or twice a year. During these visits, pupils often receive simple instructions in the use of the library and are encouraged to visit the public library (with their parents) on a regular basis. In some places in the Netherlands and also in other countries in Europe, the School Library Service has been forced to close (due to lack of funding or other governmental or managerial decisions).

The 'school libraries' mentioned above do have some influence on academic achievement, since they give children access to books and reading materials which

they otherwise may not have. This is especially the case in low income communities. UNESCO describes the fact that children are encouraged to read on a regular basis (traditional literacy skills) as one of the indicators for an increase in academic achievement (UNESCO, 2009a), however, for some children, the kind of 'school library' which has been described above may have a negative effect. Pupils who are encouraged to read books which may not be at their own reading level or may be of no interest to them feel 'forced' to make use of the 'school library'; this can have a negative effect on their lifelong enjoyment of reading.

Data obtained during this research provides evidence that some school leaders are no longer up to date in their conception of the value and role of a school library and its function within the school. These problems are particularly evident in countries which do not have a strong school library tradition. The 'school library' is left to the principal's own definition and interpretation. They are sometimes unaware of the benefits which the trained school librarian can bring to the educational quality within the school. Some think that school libraries are no longer necessary – after all, 'pupils can find all the books and information which they need on the Internet'. In some schools, the trained school librarian has been replaced by a library clerk who scans the books. The school library is now 'run' by a computer. There is mounting international evidence that these decisions lack educational vision (*School Libraries Work*, 2008), (ASLA, 2008).

Chapter 4 : Social context : Changes in society during the third information age

The social changes which have taken place throughout the world since the 1960's also form part of this study. Changes in lifestyle, and the introduction and use of ICT into the home, the school and the workplace have been responsible for changes in our daily life. Present day pupils have grown up in an environment where television, computer games, and new audio-visual technology is normal. Prensky (200, p. 1) describes them as 'Digital Natives'².

According to Ritsema (2002), social change has affected the way in which parents bring up their children. She describes feelings of guilt which parents (who are both employed outside the home) may have because they do not spend more time with their children. They compensate this lack by doing everything they can to make their children happy – e.g.: too many (expensive) toys, gifts, food and sweets, their own personal computer – and by being less consistent in the children's upbringing. There are less restrictions in children's lives. McDonnell (2001) sympathises with parents and experts who believe that today's children are growing up too quickly, robbed of childhood by a toxic combination of TV, films, video games and the internet.

Drawing on the work of Postman (1982 and 1985), Buckingham (2000, p. 21) has spoken about 'the death of childhood' and asks if children will increasingly live 'media childhoods, dominated by the electronic screen'. He not only reviews recent changes in childhood and the affect of the media environment, but also the lack of nurturing. Children can no longer be protected from the adult world. Winn (2002) and Steyer (2002) insinuate that the television and computers are being used as babysitters. There is very little supervision of what children are actually doing on the computers, as long as they are quiet and appear to be occupied. Willard (2007) writes about the need to help children to use media and the Internet safely and responsibly.

Within this social context children enter the school and begin formal learning. The learning environment within the school not only needs to ensure that these children can work towards academic achievement at their own individual level, it also needs to provide a feeling of safety and nurturing. It is possible that the social changes described above may also lead to changes in the way pupils learn. In his book *ICT : Changing Education*, Abbott (2000) points to the teacher's task which includes preparing pupils for a society in which the traditional aspects of living have been transformed. He reiterates that there is no sign of this immense technological and social revolution slowing down. There is little time to develop skills such as thoughtful concentration and reflection (Costa, 2001). Greenfield (2009, pp. 69 – 71) states that:

² See Chapter 10, page 68.

'The informal learning environment of television, video games and the internet are producing learners with a new profile of cognitive skills. This profile features widespread and sophisticated development of visual-spatial skills, such as iconic representation and spatial visualization. A pressing social problem is the prevalence of violent video games, leading to desensitization, aggressive behaviour, and gender inequity ...Formal education must adapt to these changes, taking advantage of new strengths in visual-spatial intelligence and compensating for new weaknesses in higher-order cognitive processes such as abstract vocabulary, mindfulness, reflection, inductive problem solving, critical thinking and imagination. These develop through the use of an older technology, reading, which along with audio-media such as radio, also stimulates imagination.'

Prabhu (2010) and Rideout, Foehr and Roberts (2010) have spoken about the sharp rise in students' media use. According to Prabhu (2010) this challenges educators to make lessons more engaging. Rideout, Foehr and Roberts (2010), state that mobile technology enables children to spend an average of nearly 8 hours per day using entertainment media.

During research carried out by Todd, Kulthau and Olema (2004), children clearly stated that they value the nurturing, help and individual attention which they receive in the school library. During a presentation of their research, Todd described how children who were interviewed had talked about 'that nice lady in the school library who helps me with my homework'. La Marca (2003) also describes an attractive friendly environment, where children are helped and supervised by the library staff. Taylor (2002) refers to the tending instinct and the importance of the nurturing which pupils receive in the school library.

[Social context : European section of this study.](#) During the European part of this research it became apparent that each individual country which was studied has its own separate social and cultural context, as confirmed by Arnove and Torres (2003). This will be explained further in the European section of this study (Chapter 22) and in the individual country reports.

Chapter 5 : Changes in educational policy : Lifelong learning

Lifelong learning is defined as ‘all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective’ (Harvey, 2004, p.1). Lifelong Learning is an expression used to indicate that acquiring new knowledge is now considered a continuous process which does not end when one leaves school or university, but continues uninterrupted throughout one's professional life and even after retirement, spreading to embrace all stages of life and all social groups thanks, to a great extent, to the possibilities offered by e-learning (elearningeuropa, 2009b, p.1).

On 9 November 2005, the proclamation *Beacons of the Information Society : The Alexandria Proclamation on Information Literacy and Lifelong Learning* was published (IFLA, 2005a, p. 1). The proclamation declares that:

‘Information literacy and lifelong learning are the beacons of the Information Society, illuminating the courses to development, prosperity and freedom. ...

Information Literacy lies at the core of lifelong learning. It empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion of all nations. ...

Lifelong learning enables individuals, communities and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for shared benefit. It assists them and their institutions to meet technological, economic and social challenges, to redress disadvantage and to advance the well being of all’

Lifelong learning is linked to economic prosperity. It implies that people need be able to learn continuously, in order to acquire the skills they need to cope with on-going changes in the workplace, within their society and also within their own homes in the 21st century. The key competencies for lifelong learning – a framework for key competencies in a knowledge-based society - which were published in November 2004 by the European Commission (2004, p.6), are: communication in the mother tongue; communication in foreign languages; mathematical literacy; competence in science and technology; digital competencies; learning to learn; interpersonal, intercultural and social competencies; civil competencies, entrepreneurship and cultural expression.

Chapter 6 : The implementation of changes in education since the 1960's : educational reforms

As discussed in the Preface, this study began in 1997, when an attempt was made by the school leadership at the Kalsbeek College in Woerden, the Netherlands to simultaneously introduce and implement educational reform, ICT and educational technology, and new forms of learning throughout the school as a whole. Chapter 6 will provide a simple description of these educational reforms which were introduced, however a more complex study at a later date is recommended. Educational reform could be defined as a 'a plan or movement which attempts to bring about a systemic change in educational practices. Educational theories, curriculum reform, and operational structure are often areas targeted for change' (Wikipedia, 2010b). Tyack and Cuban (1997) have tried to place educational reforms into their true historical perspective and to present realistic expectations for educational reform. Experiences over the last 100 years show that miracles cannot be expected. They predicted that, step by step, some of the new goals will be achieved.

In 1981, in the USA, there was a widespread public perception that something was seriously wrong with the educational system. The Secretary of Education T. H. Bell created the National Commission on Excellence in Education and directed it to examine the quality of education in the United States and to write a report (National Commission on Excellence in Education, 1983). This document contains recommendations regarding, for example, the assessment of the quality of teaching and learning in schools; a comparison of American schools and colleges with those in other advanced nations; the identification of educational programmes which result in notable student success; the assessment of the degree in which major social and educational changes in the last quarter century have affected student achievement; the definition of problems which must be faced and overcome, in order to create excellence in education. The Commission made many recommendations, including the following which are relevant to this present study: that schools should adopt high standards and expectations for academic performance and that colleges and universities should raise their admission requirements; that more time should be spent on teaching new, basic skills (implying that the school day would need to be longer or that the school year would need to be lengthened); that the training of teachers and the image or status of the teaching profession should be improved, and finally that elected officials should be made responsible for these reforms.

In January 2010, the White House (2010, p. 1) published a statement which declares that

'President Obama will reform America's public schools to deliver a 21st Century education that will prepare all children for success in the new global workplace. He will foster a race to the top in our nation's schools, by promoting world-class academic standards and a curriculum that fosters critical thinking, problem solving, and the innovative use of knowledge to prepare students for college and career. He will push to end the use of ineffective, "off-the-shelf" tests, and support new, state-of-the-art assessment and accountability systems that provide timely and useful information about the learning and progress of individual students'.

After a meeting of the European Council in Lisbon in 2000, the EU published Lisbon goals, which specify the vital importance of education and training in order to create a competitive and dynamic knowledge-based economy in Europe. A European framework for key competences at all levels of education and training was published. Many countries use this framework as a reference point in school reform. The list of competences is extensive, and contains aspects such as: adapting school curricula, competence of teachers, assessment methods, and the introduction of new forms of learning. Lifelong learning (with its economic connotations) and monetary investment in education are also very important. A recent EU publication states that although much has been achieved, much still remains to be done (Europa, 2009).

In 1993, in the Netherlands, educational reforms took place in secondary schools (Boekhorst and Veen, 1996a). New educational concepts which emphasizes learning instead of teaching and encouraging students to take an active, independent approach to learning were introduced. The teacher's role shifted from being an instructor to becoming a coach and facilitator. These concepts will be described in more detail in Chapter 9.

Eurydice (2007) refers to educational reforms which are now taking place in a number of countries in Europe. Many of these reforms have to do with the autonomy of individual schools and the need to manage schools effectively.

This thesis argues that because of the impact of the third information age, these are not just ordinary periods of educational reform and that the additional impact of the third information age on educational reform should be taken into account. The situation becomes much more complex because a number of different, distinct sets of changes in education are taking place simultaneously – the one sometimes enables the other. For this reason, educational reform needs to be reviewed as part of this whole picture.

Chapter 7 : The implementation of changes in education since the 1960's : ICT and educational technology

The term 'Digital Divide' is often used to refer to the gap between people with effective access to ICT and those who have very limited or no access at all. It also includes the imbalances in physical access to technology as well as the imbalances in resources and skills needed to effectively participate as a digital citizen. In other words, it is the unequal access by some members of society to ICT, and the unequal acquisition of related skills. The term is closely related to the knowledge divide, since as the lack of technology causes the absence of, or limited access to useful information and knowledge. The digital divide may be classified based on gender, income and race, and also by locations (Rice, 2002) and (Wikipedia, 2009a). In Chapter 22, this thesis attempts to find out if there is a distinct correlation between a nation's GNI ranking (at European level) and the quality of its education. Is a lack of effective access to ICT and educational technology another factor which affects educational quality?

More than forty years ago schools in industrialised countries entered the information age. Primary and secondary schools acquired computers and began to use them for both educational and administrative purposes, thus bringing about renewal in education. National laws concerned with educational renewal were passed (Rikxvoort and Reijenga, 2002). Three different kinds of changes in education began to take place at the same time – educational reforms, the introduction of ICT and educational technology into schools and the introduction of new forms of learning. In order to steer the school community through this period of major changes, politicians and school leaders need to acquire and provide educational vision.

The introduction of ICT and educational technology into the schools can be described in different ways, depending upon the attitudes of school leaders, teachers, school administrators, pupils and sometimes parents at individual schools, as follows:

Innovators and pioneers Many of today's teachers grew up in the pre-computer world. Abbott (2000) describes what it was like to become a teacher in the early 1970's, when technology was beginning to change teaching practice. He confirms that the pioneers of ICT in the classroom were usually teachers who were, in fact, hobbyists who had an affinity with ICT. He talks about the use of ICT in the classroom and the impact which its introduction has had on the schools. Most amusingly he points out that when, initially, new forms of educational technology were introduced, the older generation of teachers was extremely suspicious. Within a few years these

technological devices were replaced by the computer, which offered the same facilities plus many more.

Early adopters can be described as those people (usually teachers with an affinity for ICT) who, when ICT was first introduced into schools in the 1970's, took positive steps to implement it for educational and administrative purposes. Now, in 2010, there are still members of the school staff who are interested in the innovative implementation of ICT, however, due to the amazing increase in the availability of many different kinds of ICT for educational use, the problems faced by them have become much more complicated. They can no longer rely on their affinity with ICT – they need professional training. Kollias and Kikis (2005) and Kikis-Papadakis (2006) have provided detailed information about the evaluation of ICT innovation and learning.

Broad implementation Some schools waited to learn from the mistakes of others before introducing ICT into the school on a broad scale. The broad implementation of ICT within the school has now become a complex issue. According to the Statistical Office of the European Union (Eurostat, 2006) and the Empirica report (Korte and Hüsing, 2006), some secondary schools within Europe now have as many as 1 PC for every 5 pupils. According to Abbott (2000), there is no indication that this immense technological and social revolution is slowing down. In a large school, the network of computers and other digital facilities takes experienced, professional co-ordination, not only in a technical sense but also for the co-ordination and maintenance of the large volume of administrative and educational information which it generates and uses throughout the school.

The introduction of ICT and educational technology within the schools has contributed to new visions of education and has caused enormous changes within the schools themselves (Balanskat, Blamire and Kefala, 2006). Because of the importance of the information age and lifelong learning, governments in many countries have provided extra funding for schools, so that they are able to afford better computers and better networks. School library and information centres have been enlarged and modernised.

The ICT facilities which can now be found in the average secondary school in the Netherlands and in many other industrialised countries are both extensive and refined. The average school now uses one or more web-based networks. A large amount of educational and administrative software and educational technology is made available through these networks and extensive amounts of content – both information

and knowledge – are stored in them. The ICT facilities within the school can be divided into three groups: technical facilities (hardware and installation of software), administrative and communication facilities, and content (the storage, use and retrieval of information and knowledge for educational and administrative purposes). These different facilities are co-ordinated, using specific hardware and software. This work can no longer be carried out by computer hobbyists. New specialised personnel functions have been created so that ICT and educational technology can be used reliably and correctly throughout the school.

Technical facilities: Computer classrooms (laboratories) have been set up, PC's have been placed in many classrooms and at some schools the SLIC has become a modern learning environment where pupils can not only use the traditional services of the library, but also have access to ICT (hardware and software), educational technology and to new forms of information in digital form. Special ICT facilities have also been put in place for teaching staff.

Administrative and communication facilities: Administrative programmes related to the management of the school have been digitised. Personal information related to pupils and staff, marks, reports, salaries, work of the secretariat, reports etc. are stored in administrative programmes and content management systems. Communication facilities (E-mail, internet, Web 2.0 facilities etc.) are available to the entire school community.

Content: A wide range of educational content and knowledge (in traditional and digital form), which can be accessed from inside and outside the school, has become available. A need for the correct knowledge management of this educational content, which represents the intellectual property of the school and has a monetary value, has arisen.

[ICT in the classroom and in other learning environments throughout the school](#)

Computers and educational technology are now an essential part of classroom facilities. The European Union published a report of a 2006 study on the use of ICT in European schools (in countries which are members of the EU) - (Insight, 2006) - which provides information about the ICT hardware and software which is available in the classroom, per individual country.

Governments have issued guidelines and/or targets regarding the number of computers which should be available in schools. The target (in the Netherlands) in 2004 was 3 or 4 computers in each classroom (1 computer for approximately every 8 pupils) (Sontag, van Haaf, van der Linden and Meijs, 2004). Schools throughout the

EU also have computer classrooms (laboratories), with \pm 30 PC's, where each child in the class has his own individual PC. Despite the above statistics, experience has shown that the amount of ICT software, hardware and educational technology in the average classroom (Korte and Hüsing, 2006) is not always sufficient or adequate. In some countries, the provision of a computer (or laptop) for every child is being advocated, however, due to the apparent complexities of these projects (definitions, technical problems, etc.) this should be the subject of a further study.

The Internet plays a very important role in information access and in communication. It provides an infrastructure to support communication and electronic mail, and is also linked to the World Wide Web (WWW), which is a system of interlinked hypertext documents. Teachers and school staff need a basic understanding of how it works, in order to be able to apply it in administration, communication and as a valuable educational tool. Every second, the World Wide Web (WWW) is expanding. Using Web 1.0 technology, educators and students can, for example, find and use information online, write reports using a word processor, make presentations using PowerPoint and store information in digital files or on a (school) server. According to Thompson (2008), attempting to define Web 2.0 technology is like trying to change the tyre on a car while it is still moving. The multitude of Web 2.0 applications which can be accessed by a PC or mobile telephones allow users to use free tools such as blogs, wikis, podcasts, photo, music and video sharing and social networking (Solomon and Schrum, 2007). These tools, which make it possible for people to communicate directly, are changing how people interact with the world. Web 2.0 is not only providing information to people - people are also putting (accurate or inaccurate) information back on the web. Users need to know how to evaluate the quality of this available information.

The average school uses one or more (web-based, sometimes wireless) networks, which make a large amount of educational and administrative software and content available to the school community. Each pupil and staff member has his or her own account within this network, which is accessed by an individual password. Parents can also access some parts of the network from home, using individual passwords, in order to check on their child's progress. Good network security is imperative.

Different forms of ICT and educational technology are distributed throughout the school. A classroom may have up to 5 PCs, a network connection, internet access, a beamer (overhead projector), an interactive whiteboard and perhaps a printer. Each member of the school leadership has an individual PC. PCs for teachers (with a

network connection) are available for teachers (in the Netherlands approximately 1 PC for each 7 teachers). In some schools with a large numbers of part-time teachers³, this ratio may be even higher (+/- 1 PC for every 5 teachers). PC's are also available for non-teaching staff. All these PC's are also used as a communication tool.

Some schools have a well-equipped SLIC where pupils from different age groups and different levels can take part in new forms of learning, and where all members of the school community can use different kinds of traditional and digital school library facilities. These SLIC facilities vary from country to country. Extra PC's may be needed in the SLIC for children with inadequate resources at home, inferring that the opening hours of the SLIC may need to be reviewed.

Communication inside and outside the school, with pupils, staff and parents, takes place via E-mail, the school web page, the ELO and sometimes via other forms of Web 2.0 communication technology. School publications, documents and policy statements are published digitally on the school network.

Discussions are taking place about the use of digital textbooks throughout the school, for use in both traditional teaching and also in new forms of learning. Their use is expected to cost less than the purchase of printed textbooks, however expertise will be required during their use, not only on the part of teachers, but also on the part of the school's ICT technical staff, since reliable access to these textbooks will be required on demand, at any time of day or night. In large families, with only limited resources and a number of children and (and perhaps only one computer to share amongst them), problems could arise⁴ when children want to do their homework or study for exams and may not have sufficient access. During the past twelve months, there have been discussions amongst educators and librarians about the use of E-books and E-readers in schools and libraries. As this technology evolves, specific questions need to be asked about the cost and the reliability of this technology, the availability of literature in different languages, copyright, etc.. A separate, more detailed study should be carried out on this subject. The specific expertise of the school librarian and information specialist who helps pupils and teachers in the use of these facilities will be essential.

Table 1 (page 46) shows the 2010 target number of PC's, laptops and other educational technology in a large (comprehensive secondary) school with 1,600 pupils.

³ See Table 2, page 74.

⁴ See results of the small research project carried out in co-operation with the public library, Chapter 21 page 157.

Table 1 - ICT Targets

Estimates number PC's or laptops for pupils in a secondary school with approx. 1,600 pupils	200
Estimates number PC's or laptops for approx. 120 teaching staff (in staffrooms)	20
Estimates number PC's or laptops for school leadership	5
Estimates number PC's or laptops for administrative staff	10
	<hr/>
Total PC.s	235
Plus:	
One or more web-based networks	
Access to educational technology in classrooms, including beamers, interactive whiteboards etc.	
Printers	
Extensive educational and administrative software and content	
Other forms of educational technology	

A comparison can be made with the computer usage of some small to medium-sized commercial enterprises. The use of these extensive facilities requires expertise and co-ordination, provided not only by a fully qualified systems manager who takes care of the day-to-day use and maintenance of the PC's within the school and makes sure that the network is running and the software and back-up support is functioning, but also the expertise of a fully qualified information specialist, who co-ordinates the relevant traditional and digital information facilities which are required within the school, accesses relevant information from outside the school, and provides training in information usage for the entire school community. Data maintenance, data ownership and knowledge management are new responsibilities which need to be addressed and assigned. In small schools, these specialist staff members may work for a number of schools.

The ICT infrastructure within the school should be carefully described in the school's ICT policy. Experience has taught that not enough attention has been paid to this matter. It is not enough to 'have' a certain number of computers in the school. The ICT policy should also describe the way in which these facilities are used for different specific educational purposes. The correct, innovative use of ICT facilities within the school requires a high level of expertise⁵. Trained staff is essential.

⁵ See Figure 12, page 242.

Costs The expectation is that the careful and accurate use and implementation of ICT throughout the school will increase the school's managerial and administrative efficiency and lead to an increase in educational quality and academic achievement. Funds need to be made available for the initial purchase and installation of computers (hardware and software) and networks. However this is not a one-time cost. There are additional costs for day-to-day maintenance and for various computer applications, software updates, expensive annual service contracts, etc.. Also, computers have a relatively short life span and need to be replaced at regular intervals. New, faster computers and networks with more memory or capacity need to be purchased in order to cope with new trends in ICT usage. Schools are put under pressure by commercial enterprises, encouraging them to purchase more, newer educational software and hardware.

At the National Educational Exhibition (NOT) which was held in Utrecht, the Netherlands in 2009, attendees were asked to complete a questionnaire about specific ICT products or services they may be of interest to them. Figure 3, page 48 shows a list of some of these products or services which were suggested for use in schools. If (some of) the (new) hardware, software and services which are shown in this table are implemented, then costs increase further. Many of the listed services had no relationship to an increase in educational quality within the school but are used for managerial or administrative purposes, school maintenance etc.. Clear evidence supporting the theory that the implementation of ICT into schools results in savings on staffing and administrative costs, improvements in the school's efficiency and increases in educational quality does not seem to be available, and should be the subject of a further study.

Funding is also needed for the new staff members who have been employed to assist in the implementation and application of ICT within the school. How are these costs funded?⁶ Should schools receive extra (governmental) funding in order to cope with the requirements of the (third) information age, or should other (non-computer related) projects within the school receive less funding so that ICT costs can be covered? Three questions could be asked: Has there been value for money in the costs which have already been incurred? If (national) expenditure on education has remained fairly constant, have the high costs of ICT within the school caused a 'shift' in actual expenditures? Are other aspects of education receiving less funding?

⁶ See Final Conclusions, Chapter 23, page 248.

Figure 3

ICT expenditure : Products and services concerned with ICT in schools – 2009

Products and services concerned with the use of ICT in schools		
Educational services	Management and administrative services	Technical ICT services
Digital school boards or whiteboards	School administrative systems	Security
Software for digital schoolboards or whiteboards	Pupil administrative systems	Data communication and storage
Digital testing systems	Pupil attendance systems	Internet, Intranet and Extranet
Educational software and teaching methods	Electronic system for the care of pupils (social services)	PC's, laptops
Educational content and pictures/illustrations	Digital school reports (reporting system)	Mainframes / servers
Educational games	Planning and roster system	Printers, copiers
Educational websites	Internet and intranet system	IT-management
Electronic learning environments (ELO's)	Content management system	Network management
E-learning systems - systems for distance learning	Document management system	Helpdesk and support
Web portals	MIS (Management information system)	ISP (internet service provider) services
Multimedia systems	Accounting and financial system	Advisory services
Audio and video systems	HRM (Human Resource Management) system	Training
Beamers / projectors	Salary administration system	
Advisory services	Facility management system	
Other equipment which borders these products	Chip card system / payment system	
Training for teachers	Security system	

Products and services marked in have a direct effect on educational quality within the school

Chapter 8 : Changes in teaching and learning : Essential learning skills for the 21st century.

Society relies on teachers to educate its children and to teach them many of the skills which they will need to know, in order to take an active part in society (Commission of the European Communities, 2007) and (Ministry of Education, Government of Canada, 2008). The skills have become more and more complex as the complexity of the globalised society increases (Arnove and Torres, 2003). Warlick (2002) asks: 'What are the basic skills of this information driven age, and how do we teach them (these skills)?' School leaders and educators throughout the world are asking this same question.

According to Resnick (2002, p. 45-46), new digital technologies make a learning revolution in education possible. He states that:

'To take full advantage of new technology, we need to fundamentally rethink our approaches to learning and education and our ideas of how new technologies can support them. ... Education and learning are often considered in terms of information: What information is most important for people to know? What are the best ways to transmit that information. ...Rather, learning is an active process in which students construct new understandings of the world around them through active exploration, experimentation, discussion, and reflection.'

According to Papert and Resnick (1995, p. 33), 'being digitally fluent involves not only knowing how to use technological tools, but also knowing how to construct things of significance with those tools' . The learning skills which need to be taught in the 21st century are continuously being discussed at international level by both educational and library organisations. UNESCO refers to these skills in the *Education for All (EFA) Global Monitoring Report*, (UNESCO, 2006a and UNESCO, 2009a). Goal 3 of the six Education for All goals makes the following statement:

'Goal 3 – Promote learning and skills for young people and adults

This goal places the emphasis on the learning needs of young people and adults in the context of lifelong learning. It calls for equitable access to learning programmes that are appropriate, and mentions life skills in particular. ...

Education is about giving people the opportunity to develop their potential, their personality and their strengths. This does not merely mean learning new knowledge, but also developing abilities to make the most of life. These are called life skills – including the inner capacities and the practical skills we need' (UNESCO 2009c, Goal 3, p. 1).

This thesis asks which learning skills are considered to be essential in the twenty-first century, and how can learning, using these skills, be assessed?

Traditional learning skills Traditional forms of teaching and learning, sometimes described as ‘chalk and talk’, are still of great importance. Research in the Netherlands suggests that the new kinds of learning are only successful if they are in balance with traditional learning skills and educational concepts (Kennisnet 2006).

Literacy is a basic, essential skill in the third information age. It is defined as: ‘the ability to read and write’ (Webster’s, 2009), however a more modern definition of functional literacy is supplied UNESCO (2006a, p. 30):

‘A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community’s development.’

Literacy is a skill which can be influenced in a positive way by the intervention of the school librarian. Standards for the 21st century learner (AASL, 2007) describe reading as one of nine essential skills⁷. Certain competencies are necessary when the internet is used in learning. According to Kuiper (2007, p. 49), pupils need to have the ability to reflect on the results which the search engines have produced and should be able to read and comprehend the texts on the websites in a critical way. In the present globalised society, it could also be argued that people need to be literate in more than one language⁸. This is also discussed by Cordes (2009) as multicultural literacy in his description of new literacies⁹. Nordtveit (2005, p. 4) makes the following statement:

‘Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning to enable an individual to achieve his or her goals, to develop his or her knowledge and potential, and to participate fully in the wider society.’

... Literacy skills are essential in today’s knowledge societies, conferring benefits on individuals, communities and nations. This chapter traces the changing notions of literacy from a narrowly defined concept to one embracing a holistic view of educational development that includes the building of literate societies.’

The summary of the outcomes of the UNESCO Regional Conference in Support of Global Literacy (UNESCO, 2008c, p. 1) states that:

‘Literacy remains a critical competency ... (however) Conceptions of literacy are changing. Mobility, information technologies, rapid communication and other socio-economic developments require new competencies in literacy. ... In the area of youth and adult literacy, strong government policies are required to respond to new literacy demands ...

⁷ See Chapter 8, page 60.

⁸ See also Chapter 22, page 173-4.

⁹ See Chapter 8, page 53.

Policy-makers at national and local levels recognize and promote the importance of literacy competencies at all levels of education, as the key tool for lifelong learning and as a foundation for acquiring other skills.'

During the SLA/IASL Conferences which were held in 2004 and 2009 (SLA/IASL, 2004 and IASL, 2009) special emphasis was placed on reading. Participants agreed that one of most important functions of the traditional school library is to promote not only technical reading and reading comprehension, but also reading enjoyment, storytelling and reading aloud in the day to day school library environment. The importance of storytelling and reading were discussed in detail, since they play a role in the development of language, vocabulary, fantasy and creativity. According to Meek (1988), storytelling is part of an emotional experience associated with reading pleasure, which is completely different from the involvement which takes place when reading digital text. Chambers, who was a keynote speaker at both conferences, very convincingly expressed the need to tell stories to children, to encourage them to read by themselves and to convince them that reading is a pleasurable activity. These activities contribute to their reading comprehension and intellectual growth (Chambers, 1991 and 1995).

The research foundation paper *School Libraries Work!* (2008, p. 5) makes the following statement:

'School libraries inspire literacy. When learners of all ages have the opportunity to read stories and explore information that matters to them, various forms of literacy and numeracy can emerge. Research has shown that school libraries have the tools to inspire literacy in learners of all ages.'

[Economic dimensions of literacy](#) In November 2009, the Ministry of Education in Portugal (DataAngel. 2009, p. 9) published evidence that literacy has key economic consequences for economic development. The report reviews evidence about educational attainment, the quality of the workforce and the economic value of literacy in Portugal.

'...human capital – the knowledge, skills and other attributes of people that can be put to productive use – is an important driver of economic growth and balanced social development, and that literacy is a key determinant of both human capital and social capital.

While literacy demand is driven by changes in technology and social organisation, literacy supply is determined by everyday reading practices and learning over the entire life course'.

[The knowledge of modern foreign languages as a research and communication tool](#) is discussed briefly in this chapter, since it borders on two important factors in this

study: firstly, the 'digital divide' and problems related to unequal access to information and information technology (described in Chapter 7, page 41), and secondly, the role of the school library in providing access to literature and information in a number of different languages.

According to Norris (2010), there is widespread concern that the explosive growth of the Internet is exacerbating existing inequalities between the information rich and poor. One aspect of this 'digital divide' is language. She quotes Wresch (1996, p. 59) who suggests that knowledge of English as a first or second language is critical since English dominates the world of computing. The FILTER network research¹⁰, also confirms that one of the essential skills which is needed when accessing digital information is a knowledge of modern foreign languages. The lack of this knowledge acts as an information filter (Bunt-Kokhuis, 2006a).

Norris (2010, p. 60) also mentions that the technology to overcome language barriers is progressing, with online translation services freely available for the major European languages such as French German and Spanish. In smaller well-educated welfare states such as Norway, Sweden and the Netherlands, English has become the lingua franca as the second language taught widely in schools. People's access to information via the internet in their own languages is discussed in the IFLA/FAIFE World Report 2007 (IFLA/FAIFE, 2007). This information is relevant to the European section of this study, which covers 61 countries where 52 official and national languages are spoken. The individual country reports in Appendix III refer to different levels of access to information in these 52 languages.

Graham (2002) quotes Dörnyei and Csizér who state that a language globalisation process is taking place, whereby the study of a world language (English) is gaining importance at the expense of non-world languages such as French and German. The *Digest of Educational Statistics 2001* (Snyder and Hoffman, 2002) shows a dramatic decline during the last 30 years in the number of students in the USA studying French and German. Crystal (1997) also describes English as a global or world language and pays special attention to the role of English in international relations, the media, international travel and tourism, international safety, education and communication.

Recent studies indicate that language is a complex (cultural) factor in education¹¹. Due to the European nature of part of this study, this factor needs to be considered carefully. The use of the internet and Web 2.0 technologies enables people to search for and find information and to communicate with people in many different

¹⁰ See Chapter 2, page 24.

¹¹ See Chapter 22, page 173-4.

languages. As their education progresses, pupils may also wish to use information in modern international languages, as a research tool, and also to communicate with other students in these languages. The European Commission, Directorate-General for Education and Culture, (2004, p. 50) confirms that the ability to communicate in the mother tongue plus the ability to communicate in foreign languages are two of the essential competencies of lifelong learning.

In the traditional classroom, more accent was placed on the teaching of languages. The number of options and teaching hours which are now available for these lessons has been reduced in many schools in order to make way for other new subjects. In his 2009 article, Garner states that the teaching of foreign languages in the U.K. is in decline and that there is a fall in the number of trainee teachers specialising in languages.

This thesis concludes that the teaching of modern foreign languages, especially English, is crucial in (secondary) schools throughout Europe since this essential skill allows students to read, understand (or comprehend) and access literature and information for educational and research purposes and also to communicate globally. A reduction in teaching hours for the teaching of modern languages would therefore seem inadvisable.

New literacies. Research confirms that the nature of literacy is changing as new forms of ICT appear and are put to use¹². Many nations around the world realise that they must prepare students for the challenges of a competitive global economy and are therefore developing national policies to raise literacy standards and to implant ICT into the school curriculum. In order to do so, questions must be asked about ‘types of texts, types of literacies, assessment, curriculum, and teacher education, and how these are impacted by present and emerging technologies, Theories and pedagogies of literacy that dynamically respond to social and technological change need to be developed’ (Leu, Kinzer, Coiro and Cammack, 2004, p. 11). This group of researchers have provided expanded definitions of literature and state that ‘the nature of literacy is changing rapidly as new ICTs appear, requiring new literacies to fully exploit their potential in what Reinking (1998) has called our ‘post-typographic world.’ On page 30, Leu, Kinzer, Coiro and Cammack (2004) state that three important social forces in today’s world are shaping both the forms and functions of literacy. There is a global economic competition focused on the rise of the Internet and other ICTs, and

¹² See Figure 14, page 246.

educational policies from nations around the world that emphasize higher achievement in literacy and the effective use of information technologies.

‘It is this social context that prompts many of the changes to ICTs and to literacy that we are experiencing, making the effective use of the Internet a necessary component of the literacy curriculum (p. 5). ... The appearance of the Internet in the workplace as well as in home and school contexts is one of the most powerful social revolutions taking place today. At the heart of this revolution are the new literacy skills and strategies demanded by the Internet and other ICTs’ (p. 8). These new literacies (or strategies) allow us to use the Internet and other ICTs to identify important questions, locate information, critically evaluate the usefulness of that information, synthesize information to answer those questions, and then communicate the answers to others (p. 2)’.

They go on to state that it is too early to identify a comprehensive theory of new literacies and may be impossible to precisely define them, because one of their most important characteristics is that fact that they are regularly changing. According to Bruce (1997); (Leu, 2000); (Reinking, 1998), as new technologies for information and communication continually appear, still newer literacies emerge. The continuous nature of these profound changes requires new theories to help us understand them. However Leu, Kinzer, Coiro and Cammack (2004) have attempted to identify a New Literacies Perspective - central principles on which this theory could be built, as described in page 15 of their paper:

‘the Internet and other ICTs are central technologies for literacy within a global community in an information age; the Internet and other ICTs require new literacies to fully access their potential; new literacies are deictic; the relationship between literacy and technology is transactional; new literacies are multiple in nature; critical literacies are central to the new literacies; new forms of strategic knowledge are central to the new literacies; speed counts in important ways within the new literacies; learning often is socially constructed within new literacies. Last but not least, the teachers become more important, though their role changes, within new literacy classrooms’

As ICT is used more and more in the classroom, the central role that teachers play becomes even more important within these complex information environments. According to Leu, Kinzer, Coiro and Cammack (2004, p. 1599), teachers will need to be:

‘aware of emerging technologies for information and communication, capable of identifying the most important new literacies that each requires, and proficient in knowing how to support their development in the classroom. Institutions for teacher education will need to prepare new and experienced teachers so that they can support children in the new literacies of ICTs in the classroom’.

New literacies include the skills and strategies which allow people to use the Internet and other forms of ICT effectively. According to Leu, Kinzer, Coiro and Cammack (2004, p. 17), they include ‘using a search engine effectively to locate information;

evaluating the accuracy and utility of information that is located on a web page in relation to one's purpose; using a word processor effectively, including using functions such as checking spelling accuracy, inserting graphics, and formatting text; participating effectively in bulletin board or listserv discussions to get needed information; knowing how to use e-mail to communicate effectively; and inferring correctly the information that may be found at a hyperlink on a web page'. It is immediately obvious, however, that this list, written in 2004, may already have changed during the last 6 years, for the reasons mentioned above (Bruce, 1997), (Leu, 2000) (Reinking, 1998).

When speaking about new literacies, Andretta (2009) explores the concept of 'transliteracy'. She quotes Thomas ... [et al.] (2007), who describe transliteracy as: 'a unifying perspective on what it means to be literate in the 21st century [including] the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks'. The prefix 'trans' is used in terms of 'moving across literacies' and also in terms of 'moving beyond literacy' in order to evaluate the implications of new literacies which are emerging in the 21st century. Abilock (2008) and Cordes (2009) refer to a framework of literacies such as: technology literacy, spatial literacy, historical literacy, political literacy, visual literacy, media literacy, information literacy, and multicultural literacy, among many others. Cordes (2009) speaks specifically of 'multimodal literacies'. This is a range of literacies which at times stand alone but are often combined; the ability to use these literacies can affect academic and life success.

New literacies almost always build on, rather than replace traditional literacies. In order to learn successfully in the 21st century, pupils need to have a combination of traditional and new literacy skills. According to Kuiper (2007), traditional literacy skills are still as important as they ever were. However, new literacies demand new forms of literacy and an additional dependence on critical thinking and analysis when the reader encounters text and/or information.

This research asks: Do teachers actually have these skills? If not, are new and experienced teachers receiving sufficient (re)training, so that they can keep up to date with these constantly changing skills? Can the trained school librarians and information specialist act as a coach for teachers who are experiencing difficulties? How can the reading comprehension (at different levels of literacy) of pupils be adequately tested?

Important new literacies which are specifically relevant to the work of the school librarian : information literacy, digital literacy, media literacy The traditional role of the qualified school librarian is still of vital importance. School libraries encourage traditional literacy skills, which are imperative to the development of reading and comprehension skills. In this third information age, the qualified school librarian not only carries out these traditional tasks but also has important new responsibilities, including the teaching of new literacy skills and 21st century learning skills to both teachers and pupils.

Information literacy skills in this study are referred to in the context of education and lifelong learning – skills which, when learned, increase the learner’s knowledge and by doing so enhance educational achievement. Virkus (2003) examined the development of information literacy in Europe and provided an overview of these concepts. She quotes Bruce (2002, p.1) as follows:

‘The idea of information literacy, emerging with the advent of information technologies in the early 1970s, has grown, taken shape and strengthened to become recognised as the critical literacy for the twenty-first century. Sometimes interpreted as one of a number of literacies, information literacy is also described as the overarching literacy essential for twenty-first century living. Today, information literacy is inextricably associated with information practices and critical thinking in the information and communication technology environment’

There are many different definitions of information literacy (also called information competency or information fluency by some practitioners) - (Pemberton, 2006) - because the term is often confused with computer literacy and bibliographic instruction. While there is a great deal of overlap amongst the three terms, information literacy is the more comprehensive. This present study uses a very simple, succinct and comprehensive definition which has been provided by the Association of College and Research Libraries (ACRL, 2010, p. 1): ‘Information Literacy is the set of skills needed to find, retrieve, analyse, and use information’, and is based on the Information Literacy Competency Standards for Higher Education (ACRL, 2000). The norms for information literacy can also be found in: *Information power : building partnerships for learning* (AASL & AECT, 1998) and also (ALA, 2007). Riedling’s simple, step-by-step guide (2006) encourages students to learn the meaning of information literacy, and how to: locate the ‘right’ information, use traditional and online libraries, evaluate and identify authoritative sources, cite sources properly, and turn research papers into something that displays their own ideas and ingenuity. It also and contains information about intellectual property, copyright, and plagiarism.

Two figures have been drawn in order to clarify the link between the development of traditional literacy skills and information literacy skills. Figure 4 is a time line which relates the age of the child to his or her information literacy maturity.

Figure 4

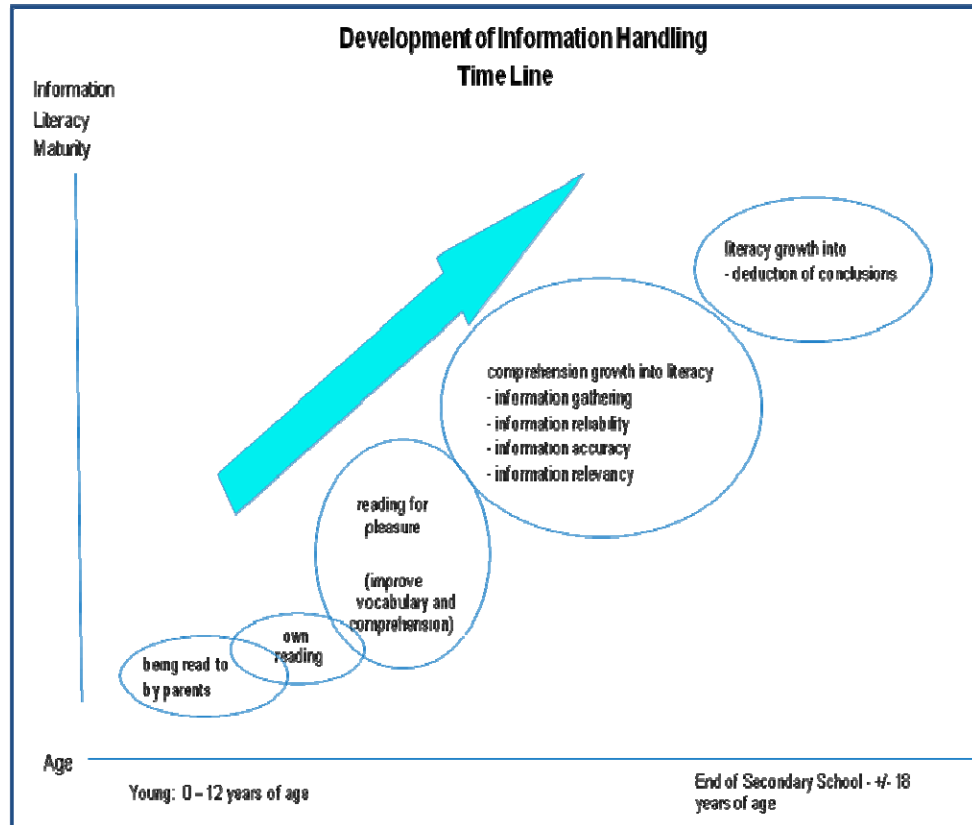
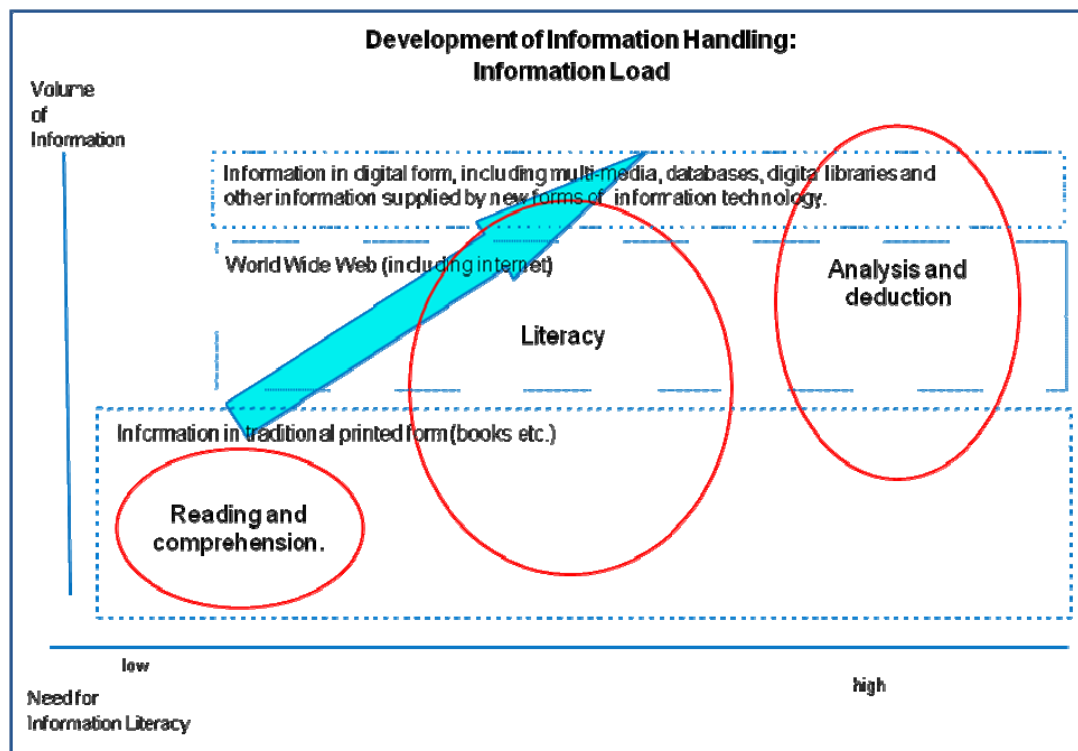


Figure 5 relates the need for information and information literacy skills to the volume of available information.

Figure 5



During the preparation of Figures 4 and 5, reference was made to the work of Stephen Krashen (2004).

Digital Literacy is defined as an equivalent expression to 'computer literacy', meaning to acquire the minimal capacity required to use digital systems, from the user's viewpoint (Allmedia, 2009).

Media literacy, Media Education and Media Wisdom Media literacy is defined by the European Commission, Audiovisual and Media Policies (2008, p. 1), as:

' ... the ability to access, analyse and evaluate the power of images, sounds and messages which we are now being confronted with on a daily basis and are an important part of our contemporary culture, as well as to communicate competently in media available on a personal basis. Media literacy relates to all media, including television and film, radio and recorded music, print media, the Internet and other new digital communication technologies ...

The aim of media literacy is to increase awareness of the many forms of media messages encountered in their everyday lives. ...'

The *Study on the Current Trends and Approaches to Media Literacy in Europe, Final Report*. (European Commission, Audiovisual and Media Policies, 2007, p. 4), defines media literacy broadly as ‘an individual’s capacity to interpret autonomously and critically’. Page 21 of this report goes on to state that ‘the study of media literacy employs a variety of similar terms and concepts, including *digital literacy, computer literacy, cultural literacy, information literacy, audio-visual literacy, and media education*. The use of so many different terms and definitions can result in confusion. While the term *media literacy* offers the most inclusive interpretation, it is still advisable to clarify the meaning of, and relationship between, these terms’. This statement may indicate that the concept of information literacy does not exist outside the concept of media literacy. However there are many different definitions of media literacy and information literacy, none of which could be said to be accepted by all experts.

Media education is defined by Buckingham (2001, p. 2) as follows:

‘Media education is concerned with the full range of media, including moving image media (film, television, video), radio and recorded music, print media (particularly newspapers and magazines), and the new digital communication technologies. It aims to develop a broad-based ‘literacy’, not just in relation to print, but also in the symbolic systems of images and sounds. ...

Media education is concerned with teaching and learning about the media. This should not be confused with teaching through the media — for example, the use of television or computers as a means of teaching science, or history. Media education is not about the instrumental use of media as ‘teaching aids’: it should not be confused with educational technology or educational media.

Media education aims to develop both critical understanding and active participation. It enables young people to interpret and make informed judgments as consumers of media; but it also enables them to become producers of media in their own right, and thereby to become more powerful participants in society. Media education is about developing young people’s critical and creative abilities. ‘

In some countries, the term ‘media literacy’ is used more widely than ‘media education’. This reference to literacy is partly strategic, since it offers a basis for including media alongside print in the established mother-tongue language curriculum.

In education in the Netherlands, the terms media education or media literacy which had been defined in 1996, were replaced by the new term ‘media wisdom’. While the term ‘media education’ was focused on education, in 2005 it was concluded that everywhere where media is used, citizens would need to have ‘media wisdom’ skills. ‘Media wisdom’ is not just concerned with education, but with all levels of society and is defined as:

'A complete combination of knowledge, skills and attitude which will allow citizens to live in a complex, changing and fundamentally media-oriented world in a meaningful, critical and active way.

This means that people should be able to use old (such as television, radio, newspapers) and new media (the possibilities which internet provides, sms) and that they should have a healthy attitude towards this media, so that they are aware of the possibilities and of the context of information.' (Mediawijsheid, 2008, p. 1)

21st Century learning skills Standards for 21st century learning skills have been published by a number of different educational, library and business associations, including the American Association of School Librarianship which published the *AASL Standards for the 21st.century learner* (AASL, 2007, p. 2-3). This set of standards implies that, in order to learn successfully in the 21st-century, pupils need to have a combination of traditional and new learning skills. Nine fundamental common beliefs are defined as follows:

'reading is a window to the world; inquiry provides a framework for learning; ethical behaviour in the use of information must be taught; technology skills are crucial for future employment needs; equitable access is a key component for education; the definition of information literacy has become more complex as resources and technologies have changed; the continuing expansion of information demands that all individuals acquire the thinking skills that will enable them to learn on their own; learning has a social context; school libraries are essential to the development of learning skills'.

The standards describe how learners use skills, resources and tools to:

'inquire, think critically and gain knowledge; draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge; share knowledge and participate ethically and productively as members of our democratic society; pursue personal and aesthetic growth.' (p. 4-7).

The Australian Government (1999, p. 1) lists goals which place an emphasis on social and employment-related skills, and makes the following statement: 'When students leave school, they should have the capacity for, and skills in, analysis and problem solving and the ability to communicate ideas and information, to plan and organise activities, and to collaborate with others' and 'be confident, creative and productive users of new technologies, particularly information and communication technologies, and understand the impact of those technologies on society'.

Chapter 9 : Changes in teaching and learning : a new kind of learning since the introduction of educational reforms and ICT into schools

From as early as the 1960's it gradually became clear that ICT could be used to influence the ways in which people learn. New concepts of learning, visions, theories and aims of education in a changing environment emerged, which in some ways may have made learning more interesting and more fun (Davies and Birmingham, 2002). According to MacGilchrist, Myers and Reed (2004), at the beginning of the 21st century, 'school' will still be the 'place' where the vast majority of our young people are formerly educated. Youth Learn (2010) concludes that, in the traditional learning framework, teachers come to class with highly structured curricula and activity plans, sometimes referred to as 'scope and sequence'. They act as the source of knowledge and as the person who determines which information is important ... a teacher, Ministry of Education or bureaucracy have decided what children should know and master in the curriculum. There are also those who feel strongly that there is a 'core knowledge, or elements of cultural literacy, that should be the emphasis of education. Hirsch (2007) argues that a common body of knowledge is essential for students to become productive and engaged citizens. He has published lists of thousands of facts which children should know at each grade level. Some critics condemn Hirsch's list of facts as promoting rote memorization and a shallow understanding of the content. In the opinion of proponents of progressive education, this approach undermines higher-order skills and child-centred learning (Concept to Classroom, 2010, p. 1).

'Education does not prepare students for a world that is static and fixed. Rather, it must prepare learners to cope with changes that will increase in complexity throughout their lives. ... Education cannot give learners all the information that they need to know, but rather it must provide the tools for continuing to learn.

In a society in which education has focused on transmitting "what we know," it is a challenge to develop a widespread view that "how we come to know" is very important in modern society.'

Questions are being asked about the present school systems, and whether or not these systems need to be revised or changed. Marzano (1992) talks about the importance of learning being meaningful. Children should be allowed to learn at their own pace, at their own level. The use of educational technology inside and outside the school makes this possible, so that different pupils in one class can now work at more than one level. Also, educational theory suggests that the pupils' learning outcomes or achievement will increase if they are responsible for their own learning (Balanskat, Blamire and Kefala, 2006).

Howard Gardner's theories of multiple intelligences (M.I.) In 1989, Howard Gardner defined intelligence as 'the capacity to solve problems or to fashion products that are valued in one or more cultural setting' (Gardner & Hatch, 1989, p. 4-9). These multiple intelligences may indicate a completely new way in looking at education itself and at the way in which children in the 21st century should receive an acceptable education. Gardner (2006) initially formulated a provisional list of seven multiple intelligences, which are described Wikipedia (2010c, p. 1) as: Musical Intelligence ("music smart"); Bodily-Kinaesthetic Intelligence ("body smart"); Logical-Mathematical Intelligence ("number/reasoning smart"); Linguistic Intelligence ("word smart"); Spatial Intelligence ("picture smart"); Interpersonal Intelligence ("people smart"); Intrapersonal Intelligence ("self smart"). Within the framework of learning with technology, each has a specific role and capacity. According to Smith (2002 and 2008), 'Seven kinds of intelligence would allow for seven ways to teach rather than one. ...Powerful constraints that exist in the mind can be mobilized to introduce a particular concept (or whole system of thinking) in a way that children are most likely to learn it and least likely to distort it'. Since the publication of the original list of intelligences, there has been intensive discussion about additional intelligences which could be included in the list, however this should be the subject of a further study.

A number of schools in North America have attempted to structure curricula according to the intelligences and to design classrooms and even whole schools to reflect the understandings that Gardner develops. *Multiple Intelligences around the world* (Chen, Moran and Gardner, 2009) describes the implementation and use of M.I. theories in different educational settings in schools around the world. It also discusses how an educational idea created in one cultural milieu can travel and take root in diverse educational settings. A small number of schools have designed special school libraries, based on multiple Intelligences (M.I.) theories.

Wagner (2008) has identified seven survival skills for the 'new world of work': critical thinking and problem solving; collaboration across networks and leading by influence; agility and adaptability; initiative and entrepreneurialism; accessing and analyzing information; and curiosity and imagination. While this is not a revolutionary list, it echoes themes found in the writings of Gardner (2006), Pink (2006) and Goleman (2006a, 2006b and 2007). The importance of these skills is relevant to the new theories and concepts of learning which are mentioned in this chapter. Specifically, the skills of: critical thinking and problem solving, collaboration across networks and leading by influence, and accessing and analyzing information were

specifically applied during the application of the educational matrix at the Kalsbeek College¹³.

New theories and concepts of learning The focus of new kinds of learning is often on pupils building knowledge and acquiring skills while working together within a meaningful context. Concepts such as learning to learn, individual (independent, or learner-based) learning, collaborative (or co-operative) learning, inquiry-based learning, guided inquiry, E-learning and lifelong learning are starting to play an important role in educational philosophies. The most important ground rule is 'being able to take adequate action, rather than understanding and knowing'. This 'new kind of learning' covers concepts and reforms which enable students to learn individually or independently (often with the support of ICT) instead of in the traditional ('chalk and talk') classroom environment with the cognitive transfer of knowledge. It is mainly focussed on the gathering of knowledge and understanding and the acquisition of the necessary skills. Pupils should not learn just to get a good report (or grade), but rather they should acquire the competencies which they will need in the society and in their profession as described on page 60 – 21st Century Learning Skills. New theories or concepts of learning can be described as follows:

Learning to learn is a term which is used in a number of different contexts. The most simple definition is related to pupils who wants to get a better mark for a given task (Fender, 2004), however, the term is more frequently used with regard to pupils with learning difficulties, specifically in three main areas of learning: attention, memory, and organization (Strichart & Mangrum, 2001). Strichart and Mangrum discuss ways to help struggling students and make suggestions which are intended to enhance a student's strengths or compensate for a weakness, including information about learning styles, how students learn, strategies, attention-enhancing strategies, memory-enhancing strategies, and organisation-enhancing strategies.

Individual (independent, or learner-based) learning Here children should be allowed to learn at their own pace, at their own level. Learner-based learning is active learning whereby learners are actively engaged in the learning process. Marzano (1992) defines five dimensions of (learner-based) learning as: positive attitudes and perceptions about learning; acquiring and integrating knowledge; extending and refining knowledge; using knowledge meaningfully and productive habits of mind.

¹³ See Chapter 20, page 135.

Learner-based learning is an important tool for E-learning and is also defined as the key to lifelong learning (Long, 1991), when learners have significant freedom to choose how they will work at their learning tasks. They play a significant role in managing their own learning.

Co-operative or collaborative learning Knowledge can be acquired on an individual basis or by working together (co-operating) with other people. The 21st century skills which have been defined on page 60 state that society expects people to be able to work together in groups on specific tasks or projects. Co-operative or collaborative learning is a special kind of independent learning. (Linden, 2000), which requires students to work together in small groups on a structured activity, however they are individually accountable for their work. The work of the group as a whole is also assessed. Cooperative groups work face-to-face and learn to work as a team.

Learners require both a traditional and a virtual learning environment where they can work together. They can decide themselves when to work on an assignment – at any time during day or night - as long as the assignment is delivered within the agreed time frame. Assignments and support for pupils are provided by teachers through the ELO (Electronic Learning Environment) or VLE (Virtual Learning Environment), which is a software system designed to support teaching and learning in an educational setting. It normally works over the Internet and provides a collection of tools which are needed for assessment, communication, uploading of content, return of students' work, peer assessment, administration of student groups, collecting and organizing student grades, questionnaires, tracking tools, etc. New features in these systems include wikis, blogs, RSS feeds and 3D virtual learning spaces. While originally created for distance education, ELOs are now most often used to supplement traditional face to face classroom activities (Wikipedia, 2009b).

Competency-based learning According to Jensen (1998), competency-based learning embraces the following aspects: active rather than passive learning (similar to 'learning to learn'), integrative learning (interdisciplinary learning), critical thinking and reflection, repetition of tasks that reinforce prior learning, expert assessment of total competency, lifelong learning. Competency based learning is a method of study that focuses on what a person can actually do as a result of training. Detailed descriptions of what competency-based learning actually is and how it is applied are contained in the *Training Manual On Competency Based Learning Assessment* (UNESCO, 2002a).

[Inquiry-based learning](#) is not necessarily a new concept. It was first mentioned by John Dewey, an American philosopher and educator whose writings and teachings have had profound influences on education. Dewey's concept presented a contrast to the more structured, curriculum-centred framework in schools (Dewey, 2009). Inquiry implies involvement that leads to understanding. Furthermore, involvement in learning implies possessing skills and attitudes that permit you to seek resolutions to questions and issues while you construct new knowledge (Concept to Classroom, 2010). During the inquiry-based learning process, under the guidance of, e.g. their teacher or school librarian, pupils ask questions and find the answers themselves. They are also encouraged to ask new questions along the way. Many educators, parents, and other members of society think that inquiry learning takes too much time and that it is much more efficient for students simply to be given the information they need to know (Concept to Classroom, 2010).

[Guided Inquiry](#) has evolved from earlier attempts to teach information literacy skills to teachers and pupils. According to Kuhlthau, Caspari and Maniotes (2007), guided inquiry is carefully planned, closely supervised targeted intervention of an instructional team of school librarians and teachers, who work together to guide students through curriculum based inquiry units that build deep knowledge and deep understanding of a curriculum topic, and gradually lead towards independent learning. This innovative team approach inspires students to gain deeper understandings and higher order thinking using the rich resources of the school library, the community and the wider world. Guided Inquiry is grounded in a constructivist approach to learning, based on the Information Search Process developed by Kuhlthau (2004) for developing students' competence with learning from a variety of sources while enhancing their understanding of the content areas of the curriculum.

[E-learning](#) is the use of new multimedia educational technologies, Internet and Web 2.0 facilities to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration (elearningeuropa, 2009a). E-learning is defined by the Digital Strategy Office, Government of New Zealand (2007, p. 1) as being: 'learning that is facilitated by the use of digital tools and content. Typically, it involves some form of interactivity, which may include online interaction between the learner and their teacher or peers'. In schools which have modern ICT facilities, this kind of learning takes place through an ELO (Electronic Learning

Environment) or VLE (Virtual Learning Environment), accessed from inside or outside the school at any time during day or night.

Much has been written about the advantages (and disadvantages) of these 'new kinds of learning', however many agree that these concepts have also made it possible for people within our society to further their education and perhaps reach a higher educational level than they would have achieved in the traditional way. People in this group are then better prepared to become lifelong learners and to play a productive role in modern society.

New kinds of learning can be especially important for pupils with learning difficulties. The introduction of ICT has allowed them to work at their own pace, and has provided new remedial teaching possibilities. Also, the introduction of ICT has sometimes helped them to 'enjoy learning' much more than they did when only traditional forms of teaching were available. Gifted pupils can be given extra challenges via new forms of learning, in the form of specific individual tasks, making boredom a thing of the past!

Learning does not necessarily need to take place in the traditional classroom – it can now take place in a location of the learner's own choosing (as long as certain ICT resources - hardware and software - are available). Using ICT, the teacher and the learner can now communicate with each other (on an individual basis or in groups) and discuss schoolwork or assignments, from inside or outside the traditional school, and can learn to manage or control the progress of their own acquisition of knowledge.

Recent articles published in the Netherlands state that too much time is being spent on new forms of learning, and that pupils are not learning essential traditional basic skills. Hirsch (2007) describes 'core knowledge, or elements of cultural literacy, that should be the emphasis of education' (see page 61). New forms of learning are perceived as being more attractive and modern, however there is destructive criticism about the quality of education since new forms of learning were introduced (Trouw, 2008). The Dutch association known as BON (Beter Onderwijs Nederland - Better Education in the Netherlands) publishes numerous articles criticising new forms of learning (BON, 2008). Parents, pupils, teachers, companies, scholars and other interested parties use this site to exchange ideas and insight into the educational process. Research in the Netherlands indicates that if teaching and learning is to be

effective, it needs to be 'in balance' – a combination of traditional plus new forms of teaching and learning (Kennisnet, 2006)¹⁴.

¹⁴ See Chapter 2 page 24

Chapter 10 : Changes in approaches towards teaching and learning since ICT has been part of the learning process

In view of the development of new technologies, the use of ICT within the school is continuously changing. In turn, these are responsible for changes in educational thinking and pedagogies. This thesis asks how the average teacher will be able to keep up with these changes and how adequate training will be provided.

Prensky (2001, p. 1) distinguishes between 'Digital Natives' – pupils and students who grow up with this new technology, who have spent their entire lives surrounded by computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age - and 'Digital Immigrants'. The Digital Natives are all 'native speakers' of the digital language of computers, video games and the Internet. On the other hand, Digital Immigrants are 'those who were not born into the digital world but have, at some later point in our lives, become fascinated by and adopted many or most aspects of the new technology. ... Digital Immigrants learn – like all immigrants, some better than others – to adapt to their environment; ... they are in the process of learning a new (second) language. - Those of us who are Digital Immigrants can, and should, laugh at ourselves and our 'accent'.

The pupils are the Digital Natives described by Prensky (2001). The average pupil has no problem with modern media and computer technology – his insight into how this technology can be used is highly developed. He has used ICT his whole life and is unafraid of it. He uses it as a tool, for pleasure and also for other more serious purposes, including academic ones. In his book *Boeiuh!*, Wijnberg (2007) suggests that within today's busy, difficult society, and perhaps because of the fact that they are not receiving enough attention from the busy older generation, young people are trying to find relief and comfort within their own group. Wright (2007) concludes that users of ICT tend to form small groups, but states that this does not only apply to young people but to all those who are making use of ICT. They use modern media, including ICT and social networking, for many different kinds of communication with their peers, and are constantly communicating, via mobile telephones, E-mail, MSN, social networks, chatting, etc. Their computer skills, when they use them to their personal advantage, are extremely good. If they want information for a specific purpose, they pick it from all different kinds of (digital) sources. However, experience has taught us that these skills are also superficial. If they want to find information for an academic purpose, their skills are not only superficial but even inadequate (Boelens, 2006c), (Probert, 2009).

This is supported by recent research into multitasking. Teachers and parents are often amazed at the way children seem to focus on multiple things at the same time when using ICT. This is known as media multitasking (task switching); it has been seen as an asset – an ability which Digital Immigrants may not have or may find difficult to acquire. In 2009, Ophir, Nass and Wagner reported the results of research into multitasking (task switching), which reveals that what these children are actually doing is jumping between different tasks and not giving each task their full, focused attention. Their attention is actually distracted, and this fact actually reduces the overall quality of attention each task needs. According to Ophir, Nass and Wagner ‘heavy media multitaskers performed worse on a test of task-switching ability, likely due to reduced ability to filter out interference from the irrelevant task set’. This is also described by Saunders (2009) as *Multitasking to distraction*.

When sitting behind a PC in a classroom, pupils would rather be playing a computer game or communicating (digitally) with their friends than doing the sometimes dull work which the teacher has set. They try to ‘trick’ the teacher so that they can do what they prefer. A teachers needs to have ‘eyes in the back of his head’ if he wants to make sure that pupils are actually working on the task which they have been given. He also has to be able to understand the processes which are taking place (the way in which the PC is being used by the pupil). In kindergarten, playing on the computer has sometimes replaced the traditional games which were played in the classroom (e.g. playing with dolls, blocks or puzzles). During these old-fashioned traditional games and activities, children played with each other and learned social skills. Now, at school or at home, they often sit alone behind a computer and interact with the technology (a machine) and with digital friends. In the average family home, some children have their own PC and are encouraged to make use of these computers, for many different (including educational) purposes. Once more, they are spending a considerable amount of time interacting with a machine (Rideout, Foehr and Roberts, 2010)¹⁵.

The teachers are the Digital Immigrants described by Prensky (2001). Unfortunately a rather large percentage of good teachers, who have excellent teaching skills and of their own subject(s), do not have sufficient digital (ICT) skills or insight. It has sometimes been assumed that teachers already have these skills or can acquire them naturally. Probert (2009) explains that, in the case of information literacy skills, it was assumed that because teachers have completed an academic study before

¹⁵ See Chapter 4, page 36.

entering the teaching profession, they are information literate. Experience and research has revealed that many teachers are not information literate because they are not familiar with the ICT skills which are needed in the retrieval of the required (traditional and digital) information. In fact, Probert's study shows that some teachers do not even know what information literacy actually is. It was presumed that younger teachers may have better ICT technical skills than older ones, but research and informal interviews at the Kalsbeek College indicate that this is not necessarily the case. Also, new teachers coming out of Teachers Colleges have received little or no instruction in information literacy skills during their training. It is 'assumed' that their information literacy skills are adequate, because they have used computers all their lives (Williams, Wilson, Richardson, Tuson and Coles, 1998), (Department of Education and Training, State Government of Western Australia, 2006).

Cuban (2003) describes the way in which teachers use computers in the classroom. He concludes that teachers are used to working in an autonomous way in their own individual classrooms; the door closes, the lesson begins. The teacher uses his own individual characteristics and teaching methods to instruct the class. Aspects of teaching such as the teacher's own knowledge of his subject, discipline, pedagogical methods and class administration come into play. This system works. It is therefore difficult for the teacher to introduce new technologies into his lessons. He can only use these new resources in (for him) a controllable way. He therefore uses modern technology in the same way in which he would have used more old-fashioned teaching aids and does not take advantage of the full pedagogical potential of the new technology. In an attempt to measure the impact of ICT in American schools, Cuban carried out action research (Cuban, 2003). Instead of collecting statistical evidence or conducting interviews, he spent hours sitting in the classroom, observing what went on and arrived at conclusions which are not encouraging. Cuban concludes that enormous amounts of money have been invested in computer hardware and software, however its impact on the evolution of new forms of learning was undervalued or neglected. The results of his research show that the majority of teachers use the new technology to support the teaching methods which they are already using. Also, the teacher is not used to co-ordinating his lessons with other teachers in an interdisciplinary way, across distinct subject areas. Cuban (2003) has concluded that teachers do not use ICT to support new forms of learning, and that only a small minority exploits the new technology to enhance the way in which learning takes place in the classroom. His final conclusion was that there was no evidence which could be

found which confirmed that academic achievement has increased because of the use of new technology. This is confirmed by Angrist and Lavy (2002).

It is therefore apparent that a great deal of money has been spent on the introduction of new technology into schools but that it is not being used to its full pedagogical potential, in fact, it is either being used as an old-fashioned teaching aid or as an administrative tool. Training programmes for teachers have been relatively unsuccessful. The European Schoolnet (2008) provides evidence from a number of individual countries which indicates that even though different kinds of training programmes have been offered in order to improve teachers' ICT technical skills, these programs were often voluntary. A large percentage of teachers did not complete these training programs. Hansson (2006) observes that although attempts have been made to retrain the teaching staff, experience has shown that they have failed to acquire the necessary skills. This is confirmed by Kennisnet (2006, p. 3) which states that research indicates that the technical ICT skills of teachers may be less than adequate. It is essential that the threshold related to the ICT skills of teaching staff be raised. Teachers have to adapt in order to be able to retain their position of authority in their own classroom.

Pupils appear to have more (superficial) ICT skills than teachers. Veen (2003) explains that teachers often experience the well-developed ICT skills of pupils (the Digital Natives) as a kind of 'hostility' in the classroom. Teachers feel threatened. They cannot compete with the pupils. For this reason a certain friction has arisen between pupils and some teachers. Many pupils believe that they have much better ICT skills than their teachers (Kennisnet, 2006). This opinion is also confirmed by Iersel (2006). However research also shows that when pupils' information literacy and research skills are assessed, they prove to be both superficial and naive.

Teachers need continuous, compulsory retraining in the implementation of ICT into their lessons. Information which was obtained from the Eurydice database (2007), the British Council (2008), Country Studies (2008) and Euroeducation (2008) for each individual country shows that for more than 10 years, Ministries of Education in many different countries have been attempting to retrain teachers, and to increase their ICT skills. Although younger teachers may in fact be Digital Natives, and may have learned some ICT skills during their training and can, to some extent, implement these skills into their lessons, they need to constantly keep up-to-date. The evidence also confirms that some younger teachers may not have better ICT technical skills than their older colleagues, and that ICT skills of teachers are not necessarily age-related (Probert, 2009). Because of the constant changes within and evolution of the information

society, the retraining of teachers is not a one-off affair, but needs to be continuous, in order to keep up with the current changes within ICT itself so that its full pedagogical potential can be realised.

The questions which remain to be asked are: Should the ICT skills of teachers be tested on a regular basis? When should the re-training of teachers be compulsory? When do teachers with low level ICT skills become unacceptable members of the teaching staff? UNESCO is attempting to answer these questions and to define the ICT competency standards for teachers (UNESCO, 2009b) at international level.

During informal surveys and conversations, teachers have also complained that the use of ICT within the school has, in fact, increased the amount of administration which takes place. Instead of saving time, it costs time, for example:

E-mails: Correspondence in schools with good ICT facilities takes place via E-mail. There are complaints about the time spent in opening and answering (sometimes unnecessary) E-mails, SPAM, network problems, etc. Some teachers are unable to use the E-mail and cannot be contacted through it. Others seldom open their E-mail. A simple note in a teacher's school letterbox is often quicker and more effective.

School administration – general administration, for example entering marks for reports, deadlines etc - costs time. A teacher needs to have this information available and then enter it into the (digital) pupil administration system. He needs access to a PC in good working order, which is connected to the school network (via internet). In the Netherlands schools have sometimes appointed new staff members (a systems administrator) to assist teachers in this specific administration, thus incurring extra personnel costs for non-teaching staff. It remains to be seen whether or not the benefits of these administrative systems outweigh the costs and the amount of time spent. However, these systems do supply statistics to the school management and to national educational organisations, which may indicate an increase in efficiency. However this administrative use of ICT within the school has virtually no connection to actual educational quality or academic achievement. Also, the use and protection of the growing amount of data and knowledge contained in the digital educational and administration systems of the school is a matter for serious concern which needs to be investigated a further study.

The ELO (Electronic Learning Environment) or VLE (Virtual Learning Environment) used by some teachers also results in extra time being spent behind the PC. While it

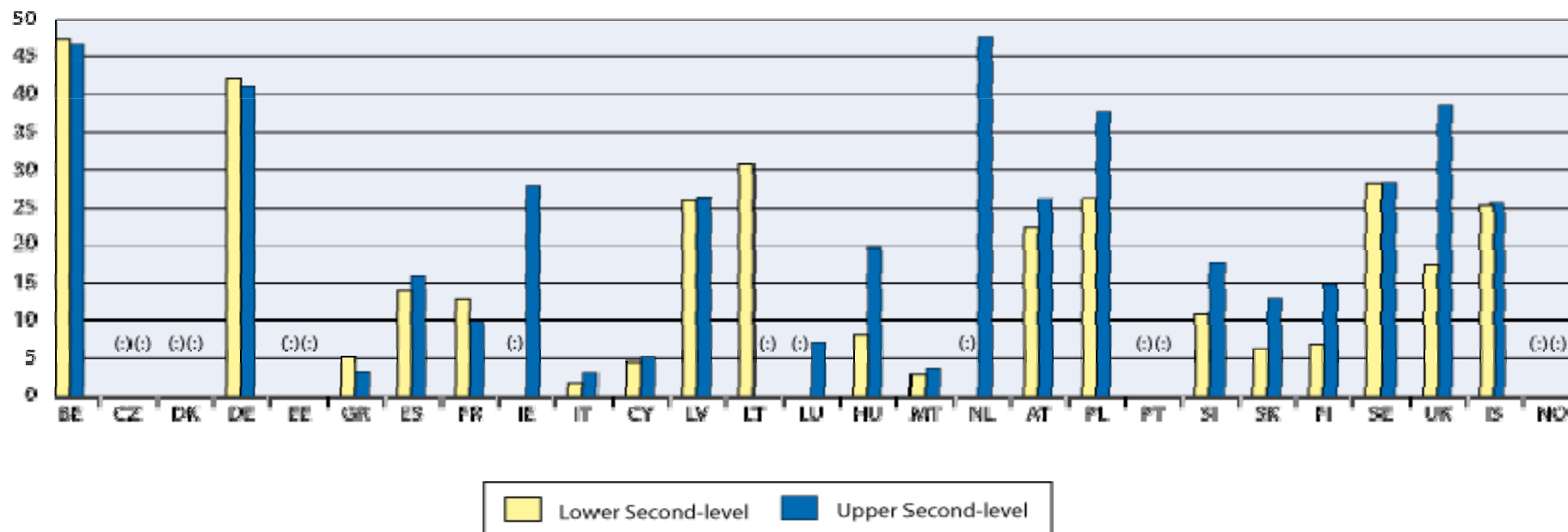
could be said that there is (better) individual communication with pupils via the ELO, teachers need extra time to prepare new teaching material suitable for ELO use. Once again the question of 'value for money' arises – do the gains in educational quality and academic achievement outweigh the costs in time and money? Of course, in schools in remote locations, the ELO has distinct advantages which are unrelated to the above arguments, provided that the required network connections are available.

The School web page provides good publicity for the school and also gives pupils and parents information about school activities and roster changes. Also, by using the webpage, parents can view their own child's marks, using an individual password and can keep up to date with the progress which the child is making. However, this information must be entered accurately, needs to have high availability and must be continuously kept up-to-date. Security issues are also very important, in order to prevent 'hacking'. The design and maintenance of an up-to-date website costs time and money and is the work of a trained information professional.

There are also complaints which are related to the workload and changes in the school's social structure since the introduction of ICT. There is an acute shortage of teachers in some countries in Europe. The large number of part-time (especially female) teachers who are now employed throughout Europe, particularly in secondary schools, is confirmed by the Department of Education and Science of the Republic of Ireland (2009) and described in Table 2 (page 74). Mejer and Gere (2008) have also supplied evidence about the high number of women teachers in all levels of education. During informal interviews, these women complained that even though they work part-time, they are still expected to attend (compulsory) ICT training sessions and to make use of all the ICT facilities which are mentioned above. This costs much more time than their employment contract actually allows for non-classroom activities (NUT, 2007). Some have returned to work after a period of absence (parental leave) and have missed out on instruction in the use of ICT (Balanskat, 2005). They point out that they have chosen to work part-time because they still have homes and families to care for and do not want the extra strain and burden of additional responsibilities and compulsory ICT training.

Table 2

Teachers working part-time as a percentage of total full-time and part-time teachers (second-level) 2004/05



Additional information, Table 2

Lower Second-level																											
	BE	CZ	DK	DE	EE	GR	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	IS	NO
2005	47.6	:	:	42.4	:	5.2	14.2	13.0	:	1.9	4.6	26.0	31.0	:	8.3	3.1	:	22.5	26.3	:	10.9	6.4	7.0	28.3	17.5	25.4	:

Upper Second-level																											
	BE	CZ	DK	DE	EE	GR	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	IS	NO
2005	46.9	:	:	41.1	:	3.4	16.0	9.9	28.0	3.3	5.2	26.5	:	7.3	19.7	3.9	47.9	26.3	37.8	:	17.8	13.1	14.9	28.4	38.7	25.7	:

Notes (Table 2)

Ireland: Upper second-level includes Lower second-level and Further education.

Lithuania: Lower second-level includes Upper second-level.

Belgium, Finland, United Kingdom, Iceland: Upper second-level includes further education.

Luxembourg, Netherlands: Upper second-level includes Lower second-level.

Source: Eurostat education statistics (UOE)

Ref.: Department of Education and Science of the Republic of Ireland, 2009

Many teachers throughout Europe have received basic (sometimes compulsory) instruction in the use of computers through a scheme known as the European Computer Driving Licence (ECDL, 2008). Other European training schemes are described by Balanskat (2005). Teaching and other staff are usually required to attend training sessions in order to learn how to use the ICT facilities, however these training sessions cost time and many staff members can provide perfectly valid reasons (related to their employment contract) for not attending these sessions.

In the results of a European survey of 15 European countries, Balanskat (2005, p. 13) describes factors which have had an impact on the ICT training of teachers, for example: 'the shortage of teachers in some countries in Europe (Hungary, Germany, France) ... (and the fact that) teachers have a fragmented knowledge base. Also, policy makers have a quite fragmented picture of the actual state of the teaching workforce in terms of knowledge and skills. Training policies can only be successfully implemented and sustainable in the long term if they are part of an interlinked or integrated (interdisciplinary) ICT strategy (p. 6)'. The majority of teachers need to improve both their ICT technical skills and also their information literacy skills. Also, some teachers lack confidence in using ICT in the classroom. If necessary, some kind of test could be used to carefully assess exactly what their ICT skills and information literacy skills are. According to Balanskat (2005)

'Half of the countries offer concrete incentives to their teachers participating in training in terms of career development prospects and to a lesser extent equipment or loan schemes, or an increase in salaries' (p. 8). ...

The majority, 11 of the 15 countries in the survey, see the need to develop new ECDL licences, on European (Greece, Denmark, France, Estonia) and/or on national level (Greece, Switzerland, Denmark, France, Lithuania, Hungary) (p. 52)'. ...

Recent developments Cerisier (2008) explains that France has attempted to gauge the actual ICT skills of teachers and the use of ICT in the class, using a relatively simple self-evaluation test, which has been used with a certain amount of success, however some questions have arisen concerning the adequacy of the test. This thesis raises doubts about the adequacy of this testing, due to the small number of qualitative questions which are asked.

Also, in the state of Western Australia a reasonably successful test of teachers' ICT skills has been carried out (Department of Education and Training, State Government of Western Australia, 2006). This test covered both technical and (some limited) content skills. The results in some specific areas were described as 'disappointing'. Perhaps incentives should be offered to teachers who can provide

evidence of their up-to-date ICT skills? According to Balanskat (2005, p. 7): 'Countries are starting to define a common (ICT) competence framework for all teachers in each country by developing certifications, setting standards or benchmarks, or highlighting best practice. Competencies are also tested as part of the assessment of teachers.'

In February 2010, the Australian government announced that all members of the teaching staff including school leaders will be accredited against a uniform (national) set of seven standards, which assess the extent of skills and knowledge for each of the four teaching levels (including school leadership). 'The standards stipulate that teachers must know their students and how they learn, and know the content and how to teach it. They must plan for and implement effective teaching and learning; create and maintain safe and supportive learning environments; assess and provide feedback; and report on student learning. Promotion (to school leadership roles) is based on these standards' (Ferrari, 2010, p.1). This announcement is particularly interesting due to the fact that in Australia, while education is usually the responsibility of each state and territory, the decision has been made for a national system of assessment, to be used throughout the entire country (commonwealth).

Research in the Netherlands According to the *Four in Balance Monitor 2006* (Kennisnet, 2006, p. 7), management (school leadership, ICT co-ordinator and systems manager) perceives that 'the use of computers has reached a (well) advanced stage of development at eight out of every ten schools. ... In primary education, the advances are greatest; over the last four years, the number of schools at a (well) advanced stage of computer use has doubled. ... In secondary education, growth is less considerable'. However, the publication goes on to state that: 'The vision of teachers on their own use of ICT for educational purposes is far less positive than the judgement by the management'. Kennisnet (2006, p. 7) provides the following statistics: 'In primary education, 43% of teachers classify their own use of computers for educational purposes as (well) advanced; in secondary education, only 29% of teachers are prepared to make this statement'. Since the first publication in 2006, Kennisnet has continued to look into these questions and has published *Four in Balance Monitors* in 2007 and 2008.

Research in Belgium (Flanders) The paper published by the Ministerie van de Vlaamse Gemeenschap, Department Onderwijs (Department of Education in Flanders), (2002), which also appears on the European Schoolnet, makes the following statement: 'Stimulation of teachers' expertise: Investment in technology makes no

sense unless sufficient attention is given to the people who have to work with the technology.’ The research paper written by Tondeur, Braak and Valcke (2006), which created interest in both the local and international press, states that, while Flanders has an excellent educational system, teachers require better ICT skills if they are to teach effectively within this system.

Research in Scotland (UK) In 2006, Williams and Wavel published a detailed report entitled: *Information Literacy in the Classroom : secondary school teachers’ conceptions*. The abstract of this report states that: ‘The results of the study indicate that teachers understand information literacy to be important for lifelong learning but do not feel able to effectively support the development of information literacy in their students within their current curriculum environments’. The study identified issues for consideration when establishing effective collaborative partnerships within schools.

Other research An article entitled *OECD Identifies "Disappointing" Use of ICT in Upper Secondary Schools*, published by the OECD (Organisation for Economic Co-operation and Development) on 3 February 2004 states that: ‘Major investment outlays over the past 20 years have brought modern Information and Communications Technologies (ICT) into nearly all schools in the most advanced OECD countries, but the extent to which computers are in day-to-day use in these schools remains disappointing’ (OECD, 2004). Tondeur, Braak and Valcke (2006) have observed similar situations.

Criticism of ICT in the classroom A summary on the cover text of Oppenheimer’s book entitled: *The flickering Mind : The false promise of technology in the classroom and how learning can be saved*, makes the following (controversial) statements which are relevant to this discussion (Oppenheimer, 2003):

‘For decades schools have been beaten down by a series of curriculum fads, empty crusades for reform, and stingy funding. Now education and political leaders have offered their biggest and most expensive promise ever – the miracle of computers and the Internet. ... Computer technology has become so prevalent that it is transforming nearly every corner of the academic world. ... and reframing the nation’s systems for researching, testing and evaluating achievement. ...

All this change has led to a culture of the flickering mind, and a generation teetering between two possible futures. In one, youngsters have a chance to become confident masters of the tools of their day, to better address the problems of tomorrow. Alternatively, they can become the victims of commercial novelties and narrow measures of ability, underscored by misplaced faith in standardised testing’.

Oppenheimer addresses the implications of computers in the classroom; he understands the possibilities and limitations of technology as an educational tool and understands the day-by-day realities of how children learn. Oppenheimer's conclusions are also supported by Cuban (2003 and 1986) who places great importance on the teacher's involvement in the development of policies for the use of ICT technology in the school.

Problems which need to be addressed As mentioned earlier in this chapter, when computers were first introduced into the school, they were installed and managed by teachers who were interested in computers and were accurately described by Abbott (2000) as hobbyists. Many teachers throughout Europe took part in the ECDL project, receiving basic (one-off) training in computer technology¹⁶. Because of the increasing complexity of the ICT resources within the school, professionally trained staff needs to be employed. Although the employment of these (new or additional) trained staff members may incur extra personnel costs, the conclusions to this research show that, in fact, savings may occur because of the accurate and careful work and assistance which these staff members provide within the school community. Teachers should be able to concentrate on their real job which is teaching (Cuban, 2004).

Instruction in information literacy skills and media literacy skills is essential for both teachers and pupils in primary and secondary schools, so that they can work effectively with traditional and digital forms of information and, to some extent, overcome the filters which are mentioned above (Filter, 2006). Perhaps in the near future, instruction in other new forms of literacy may become important (Leu, Kinzer, Coiro and Cammack, 2004). The 2009 *Horizon Report, K-12 edition* (Johnson, Levine, Smith and Smythe, 2009, p. 1) cites the following as the number one critical challenge for the use of emerging technologies in schools:

'There is a growing need for formal instruction in key new skills, including information literacy, visual literacy, and technological literacy. The skills involved in writing and research have changed from those required even a few years ago. Students need to be technologically adept, to be able to collaborate with peers all over the world, to understand basic content and media design, and to understand the relationship between apparent function and underlying code in the applications they use daily'.

Appropriate interdisciplinary (multilingual) instruction in information, media and (new and traditional) literacy skills needs to be developed, in order to meet the

¹⁶ See Chapter 7, page 76.

requirements of the primary and secondary schools educational system and to fulfil the needs of teachers and pupils. These skills must be integrated into the school curriculum. In the Netherlands, an information literacy curriculum for pupils has been developed; its implementation is currently being discussed and tested (Kaaop and Schmidt, 2007)¹⁷.

Balanskat (2005, p. 5) mentions that: 'support services have become largely available for schools. There is a shift from a more central public provision of these services towards giving schools the responsibility to organise services themselves. Outsourcing of services by schools is starting to be applied in some countries. This may help to overcome some of the technical ICT problems within the school'. However, this thesis questions the costs involved in these external services and also the ability of these services to apply technology in educational (pedagogical) setting. Balanskat also states that: 'almost all policies (current and future) mention the need for the development of pedagogical skills for teachers, making use of ICT (p. 34). ... Concrete definitions of terms and precise descriptions of skills or competencies should be part of each policy that sets the goals for developing teachers' (digital) competence'. In a final statement, she says that: 'The concept of digital literacy for teachers is, as yet, not sufficiently defined. Information handling is mentioned as a core mandatory for teachers in half of the countries participating in the survey' (p. 42). Other relevant statements made by Balanskat are as follows: 'The development of pedagogical ICT skills is in medium or high focus in most of the countries, but technical ICT skills are still important; Internet safety issues (media-literacy) are important; a focus on collaboration, interdisciplinary work or project work is needed (p. 43)'.

It remains to be seen whether or not the expenditure (to date) of time and money on ICT within schools is justified, when compared with the (increase or decrease in) educational quality and achievement of the pupils. Chapter 22 of this dissertation will attempt to make a simple comparison, on a European scale, between investment in ICT facilities and the consequences for educational quality and achievement. It is possible that some changes in policies and attitudes relating to the way in which ICT is being implemented in schools are necessary.

Plagiarism when using information from traditional, but especially from digital resources, has become almost 'acceptable'. Some children think that plagiarism is 'normal'. Teachers sometimes even promote this idea. Because of their lack of ICT skills, some teachers are unable to access or apply an anti-plagiarism tool. Also, since

¹⁷ See Chapter 21, page 158.

the tool identifies different levels of plagiarism, others are unable to analyse the results, because of their lack of information literacy skills.

Chapter 11 : New roles and responsibilities in the new learning environment :
Changes in the role of different stakeholders within the school due
to the implementation of educational reforms, ICT and new kinds of
learning into schools

As explained in Chapter 9, new kinds of learning suggest that the pupils should become responsible for their own learning (Balanskat, Blamire and Kefala, 2006) and that the role of the teacher has changed to that of a guide or coach. This chapter will attempt to clarify the new roles of different stakeholders within the school when educational reforms, ICT, educational technology and new forms of learning are introduced.

Changes in the role of the learner The basic principle behind new kinds of learning is that the learner is the driving force in the learning process. A connection needs to be found between the student's individual characteristics and the student's need for learning. The concepts of individual learning and co-operative learning, leading to lifelong learning, are very important. With the use of ICT, pupils can choose the pace or speed of their own learning and the time and place where this learning will take place. Learning not only takes place in the classroom during the hours that the school is open but can also take place online, for example, in the SLIC, at a friend's house or at home, at any time during day or night.

Changes in the role of the teacher In 1968, Edman published a detailed study which took place in 12 different countries, which had to do with the self-image of the teachers at that time (Edman, 1968). She speaks about the self-image of primary school teachers and records that two-thirds of the teachers who were interviewed had entered the profession because they thought it was a rewarding way of life. She refers to UNESCO's recommendations (UNESCO, 1966), which discuss the role which the teacher plays in most societies and mentions their authority within the community. The document states that 'teachers should be able to take their rightful place in honour and esteem'. Since that time, it appears that the image and status of teachers has changed and declined. The National Commission on Excellence in Education, (1983) in its recommendations for educational reform, suggested that the status of teachers in the USA should be improved.

The introduction of ICT has affected the balance within the school. Although traditional forms of teaching and learning are still important, teachers also need to acquire various ICT-related competencies so that they can implement new concepts of learning. This, in turn, means that the role of the teacher has changed. Formerly, in the traditional classroom, the teacher was 'king' (or queen) in his own classroom. He was the expert in his subject field. The teacher led the class; he talked and wrote on the blackboard; the pupils listened, made notes, used their textbooks and spent time in discussion and reflection. The teachers gave the children homework, which they completed at home and handed in on the agreed date. Of course this is a simplified description of what happened in the traditional classroom, but for the purpose of this study, this description should be sufficient. New forms of learning imply that the traditional (important) role of the teacher has changed, since pupils are in some ways more responsible for their own learning, which can take place inside or outside the school, at a time of their choosing. In many instances, ICT makes these new forms of learning possible. Also, pupils need to be able to see that teachers are competent users of ICT as an educational tool.

In the school of the 21st century, the role of the teacher not only lies in the transmission of knowledge and skills in the traditional classroom, but also in providing students with support in their learning processes including E-learning. New kinds of learning make new kinds of teaching essential. First of all, teachers need to learn and continuously update new skills which were not included in their original training (as described below). Those who have less affinity with ICT may need continuous help from a coach.

Technical ICT (administrative, information and communication) skills: Teachers need to be able to make use of ICT (hardware, software and content), including administrative, information and communication skills, in the new teaching situation. In order to implement new forms of learning, these technical ICT skills are essential. Lee and Winzenried, (2009) refer to the difficulties in getting all teachers to use appropriate instructional technology as a normal part of their everyday teaching.

Pedagogical skills: Motivated teachers also need to know the advantages/disadvantages which these new forms of learning could provide for some pupils. They need to learn new pedagogical skills, in order to take advantage of these new educational concepts. Many dedicated teachers (some of whom graduated many years ago), still want to do the work which they were trained to do - in a traditional classroom, without PC's, and without the use of ICT and educational technology

(Cuban, 2004), and also still want to carry out other essential administrative and communicative tasks in the traditional way. Although training may have been provided at different levels, some have not yet learned relatively simple ICT skills and have difficulty in applying ICT as an educational tool.

Also, some teachers appear to have very superficial information and media literacy skills. While they may be able to access and assess certain information in their own subject area, experience has shown that they also need extended instruction in interdisciplinary information and media literacy skills, in order to locate, select, and supervise the use of (interdisciplinary) information and assess the information used by pupils (Williams and Wavell, 2006). Probert's research (2009) provides evidence that teachers do not acquire information literacy skills naturally or during short instruction courses. They need to be aware of the necessity of these skills and to learn them during specific, detailed training courses, before they can, in turn, teach these skills to their pupils.

What do Internet and Web 1.0 and 2.0 tools mean in education? Teachers need to understand that World Wide Web applications which facilitate interactive information sharing and collaboration can enhance teaching and learning. The changing nature of information and the way in which students interact with the world (and with Web 2.0 technologies) indicate that new strategies for teaching and learning are needed. Solomon and Schrum's publication (2007) is an attempt to help educators and policymakers to understand what is at stake and why these new tools are so important.

In 2010, evolving technology is concerned with developments in the semantic web or Web 3.0, which may make it possible for the web to 'understand' requests from users and provide them with support when using web content. Although it is not possible to elaborate on the intricacies of these new Web 2.0 and Web 3.0 technologies in this dissertation, educators need to recognize the complexities which these technologies will bring to education, and may need a vision or plan so that these new tools can be used to educational advantage. This vision should contain a plan to clearly support teachers in the application of these new technologies and in the acquisition of new skills. Although some schools already have ICT policies, the review of the literature shows that these have often been unsuccessful.

In 2010, emphasis is also being placed on advice which educators and parents should give children about the use of Web 2.0 technology on PC's, mobile telephones and other evolving technologies. There are advantages (many of which are described

above) but also disadvantages, such as websites which are inappropriate for children and young people, cyber-bullying, socialising and communicating with people whom they have never met face-to-face, privacy questions and protection of their own computer (OnGuardOnline, 2010). These disadvantages and should be discussed and explained to children. Educators and parents should have enough understanding of the available tools, so that they can teach children to use the internet, and specifically Web 2.0 tools, in a thoughtful, careful and ethical way.

Changes in the role of the school leadership The role of the school principal is pivotal to these enormous changes which are taking place within the traditional or virtual school (Fullan, 2005). The principal directs the school population through this period of change and provides sufficient structure so that changes can be implemented without too much confusion. As mentioned above, this person needs to have a strategy vision, which not only provides for new facilities to be made available and makes sure that the members of the school community receives sufficient retraining but also helps to prepare them for these new challenges. According to Wagner (2008), in order for school leaders to understand the need for and to implement change within the school, they first need to understand the principles of change management¹⁸. He makes the following statement: 'Schools haven't changed; the rest of the world has. And so our schools are not (just) failing. Rather, they are obsolete – even the ones that score the best on standardised tests (Wagner, 2008, p xxi)'. Although he understands the myriad of demands on the principal's time, Wagner states that many of them are out of touch with curriculum and instruction, and that they ricochet from one educational fad to the next.

School leaders need to understand the importance of the changes which are taking place within the school at different levels(as described in this dissertation) and should include their application as educational tools in the school policy statement. They should also understand the consequences with regard to cost, co-ordination, and other changes which will take place within the school. Cuban (2004) discusses the pressures which school leaders have been put under to run schools as businesses. He suggests that less emphasis is being placed on the educational achievement of pupils, because school leaders are so busy with administrative objectives.

¹⁸ See Figure 12, page 242.

Also, during the European section of this research, interviews were held with two experts, related to the important role which the school leadership plays in co-ordinating optimal co-operation within the school¹⁹.

Changes in the role of national policy makers The successful use of ICT in education depends to a large extent on a supportive policy environment at the national level. UNESCO offers advice about how a sound national policy can be achieved (UNESCO, 2009d). Leu, Kinzer, Coiro and Cammack (2004) have observed that in countries where educational policy is the responsibility of individual states, national governments are now realising that subjects such as new literacies and an educational vision for 21st century learning skills require the clear definition of educational policies and guidelines at national level.

Changes in educational policy : The ICT policy for the use of ICT in schools UNESCO (2009d, p. 1) stated that: 'In order to make successful use of ICT in enhancing the reach and quality of teaching and learning, policy makers need to be aware of how ICT can be of best value in their country's education system and need to develop a supportive policy environment and framework at the national level for the integration of ICT into their education systems'. The statement goes on to explain that:

Policy makers are put under continuous pressure to acquire new and increasing forms of ICT, and need to be able to make a choice from these options and then implement them into the education system. Policy makers in many countries thought that to simply equip schools with PCs and train teachers in their use would prepare pupils for the demands of the 21st century ... The successful use of ICT in education depends to a large extent on a supportive policy environment at the national level' (p. 1).

¹⁹ See Chapter 22, page 180

Chapter 12 : New expertise for different stakeholders within the school

The new roles and responsibilities described in Chapter 11 mean that different stakeholders within the school require diverse and varied levels of expertise.

Expertise on the part of the school leadership is required in order to supply an educational vision for the use of ICT throughout the school, such as the provision of a school ICT policy, the provision of funding to purchase ICT facilities, and for the management of the implementation of ICT throughout the school. Balanskat (2005) states that: (There is a) 'need for specific training of headmasters and school leaders, so that they will be in a better position to carry out their (ICT) management tasks and provide an infrastructure through the school for the introduction, implementation and application of ICT throughout the school.' They will need to be able to make careful judgements during the implementation educational reforms, ICT, educational technology and new forms of learning into the schools. This training should occur at regular intervals in order to keep up to date with new trends and services. Duijn (2007) questions the actual quality and (academic) qualifications of the school leadership which in turn affect their ability to carry out these complex tasks²⁰.

Expertise on the part of the teachers is required so that they can use ICT effectively in their teaching. At the present time, rapid advances in computer technology make it almost impossible for the average teacher to keep up to date with the constant changes in the use of ICT as an educational tool, in addition to his normal (sometimes heavy) teaching workload. It is not sufficient to attend a short number of instruction courses, perhaps once or twice a year. Specific questions about how each teacher actually uses ICT in the classroom need to be asked and answered by the teachers themselves (and not by the school leadership), if accurate information on this subject is to be collected and assessed. Questionnaires are often answered by school leaders, who may be unaware of what actually takes place in each individual classroom. Examples have been given, per individual country, of inadequate definitions, questions and answers to (international) studies, in particular the Empirica study (Korte and Hüsing, 2006). Evaluation studies about the impact of ICT on learning also suggest that the use of ICT as a teaching tool has to be in balance with other prerequisites such as the pedagogical beliefs and skills of teachers (Balanskat, Blamire and Kefala, 2006).

²⁰See Figure 12a, page 243 and the Dutch Debate, page 160.

Expertise on the part of the systems manager, who makes sure that the network and computer software and hardware is in good working order, and is adapted to the needs of the school community. Security aspects are also most important because school environments are vulnerable to hacking, malicious attitudes, viruses etc.. Because of the complexity of this person's work, it is therefore most important that he/she is well-qualified and receives frequent, adequate training.

Expertise on the part of the school's ICT co-ordinator, is a member of the teaching staff. In some schools, he/she has a lighter teaching load and is allocated a specific number of 'working hours' to carry out his ICT duties. This person ensures that the teaching staff has the necessary ICT facilities and also organises training sessions, in co-operation with the school librarian and information specialist, who instructs both teachers and pupils in the correct use of new forms of information. The ICT co-ordinator also supports teachers with the implementation and use of ICT and other educational technology into their lessons²¹. This person's role and training needs to be clearly defined and clarified at national level.

Expertise on the part of the school librarian and information specialist, who co-operates with the school leadership in the formation of an information policy for the entire school. This staff member teaches up-to-date information and media literacy skills to both staff and pupils and acts as a coach and intermediary for teachers, helping them to solve information problems. This person also co-ordinates the school's information needs and facilities, including the storage of (digital) content and knowledge²². It is part of this person's job to keep up to date with changes within the information society, to access all kinds of relevant information which may be required from outside the school (in both traditional and digital formats) and to maintain the digital and/or traditional collection of information within the school.

This person also manages the learning environment known as the school library and information centre (SLIC). It is a misconception to think that a software system, used by an untrained clerk, can solve these problems. All libraries, whether traditional or digital, need correct management and maintenance; information needs to be ordered in a professional way. This is the work of a trained information specialist.

Expertise on the part of non-teaching staff, to successfully use ICT for managerial, administrative and communication purposes.

²¹ See Figure 12b, page 244.

²² The variety of expertise which is required is described in Figure 13, page 245.

Chapter 13 : Educational quality and academic achievement

In 21st century society, academic achievement is very important. Even if a child is considered to be at the lower end of the academic achievement scale, he should still be encouraged to learn as much as he possibly can, and also to keep on learning (to become a lifelong learner) – (UNESCO, 2009a). According to Loertscher and Todd (2003): 'We are in a time when all parts of education are being asked to be accountable – for high test scores – at least'. Reynolds (2002, p. 4) discusses descriptions of cross-national variations to achievement scores. This study will attempt to review the changes in the quality of education within the school since the introduction of educational reforms, ICT and new forms of learning. Is it possible to measure how these changes affect learning outcomes, educational quality and academic achievement of pupils? After (international) definitions have been provided, an attempt will be made to relate this and other information to the effect which school librarianship has on academic achievement.

International research and publications state that school libraries make a difference to educational quality and student achievement (IASL, 2008b). It therefore becomes necessary to establish a definition for two factors before these statements can be verified. The Education for all (EFA) Global Monitoring Report, (UNESCO, 2005) defines the importance of educational quality. It is at the heart of education and influences what pupils learn, how well they learn and what benefits they receive from their education. Quality must be seen in the light of how societies define the purpose of education. Usually, there are two principal objectives: firstly, to ensure the cognitive development of learners and secondly, to nurture learners so that they will eventually become responsible and productive citizens within their society. UNICEF (2000, p. 3) makes the following statement:

- 'Children have a right to an education, a quality education. Quality education includes:
- Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
 - Environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;
 - Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace.
 - Processes through which trained teachers use child-centred teaching approaches in well-managed classrooms and schools and skilful assessment to facilitate learning and reduce disparities.
 - Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society'.

This definition allows for an understanding of education as a complex system embedded in a political and economic context.

UNESCO (2009a) describes how it may be possible to measure educational achievement. It speaks about the international divide in learning outcomes, refers to international assessment tests and presents new international evidence on learning outcomes. It specifically refers to the results of three major international assessments were published during 2008: PIRLS 2006, which measured grade 4 reading skills; PISA 2006, which tested 15-year-olds in science, mathematics and reading; and a test which took place in Latin America and is not relevant to this present research. UNESCO (2009a, p. 108) discusses student-related factors which affect the achievement scores, and makes the following statement: 'What students bring with them to school influences how well they perform. Some students' endowments, such as ability, are inherent and randomly distributed. Others are the result of social, economic and cultural circumstances...'. The 'extenuating circumstances' which affect the scores in some countries include: socio-economic related gaps; family size and composition; immigrant status; home language. An attempt has been made to obtain evidence of these factors which are related to educational achievement, for each individual country in the European study.

Academic outcomes and academic achievement Academic outcomes are measurements of academic achievement. Academic achievement refers to the academic performance of students at school, and includes measurements such as standardized test scores and academic persistence or participation (such as attendance, retention, and graduation rates) - (US Department of Education, 2007 and 2009).

How can academic achievement be measured on an international level? How is it possible to measure the effect which different facilities and educational processes within the school have had on a pupil's academic achievement? According to Scheerens (2004, p. 115): 'The term 'quality' of education qualifies for the World Championship of frequently used terms that are nevertheless considered indefinable. ... The simplest way would be to refer to the available international indicator systems and conclude that education quality is what these indicator systems describe and measure'. In June 1998, the European Commission set up a Working Committee of national experts from 26 countries. Its objective was to identifying a small number of key indicators or benchmarks to assist national evaluation of education systems in the

area of school standards. A report was presented in 2000. Scheerens refers to the Sixteen Quality Indicators which were defined by the European Commission in 2000, and which cover the areas of:

Attainment (mathematics, reading, science, foreign languages, learning to learn, ICT, and civics or social studies);

Success and transition (dropout rates, completion of upper secondary education, participation rates in tertiary education);

Monitoring of school education (parental participation, evaluation and steering of school education);

Resources and structures (educational expenditure per student, education and training of teachers, participation rates in pre-primary education, number of students per computer). The European Commission, Directorate-General for Education and Culture, Working Committee on Quality Indicators (2000, p. 1) states that:

‘The indicators were selected on the basis of three selection criteria: political relevance of the area; comparability; and validity of the data. Special attention was paid to areas covered by data which already exists. The choice of indicators will consequently be subject to changes over time in the light of the political agenda, in the field of school standards, both of the Member States and of the Union, and the availability of new valid and comparative data’

Danielson (2002) refers to the importance of assessment at state level, country or national level and at international level. Also, Fuchs and Wößmann, (2004) state that: ‘the way in which an education system is organised can have a significant bearing on learning outcomes’ and go on to discuss this issue in detail. The facilities within the school, teacher supply and quality (including the morale and motivation of teachers) and the actual amount of learning time for each pupil also affect the learning outcomes.

Willms (2006, p. 8) discusses the PIRLS and PISA international studies of students’ reading literacy skills: ‘Both assessment programmes are policy-oriented, designed and guided by an international steering committee to provide regular data pertaining to the most pressing policy issues confronting educational administrators and policymakers around the world. They include considerable information on the family and school factors that contribute to school performance in each country’. The report goes on to examine the socioeconomic gradients in greater detail, using data furnished from PIRLS and PISA. Willms asks and attempts to provide answers to ten (detailed) questions relating to performance and socioeconomic status (SES). These factors are taken into account in the design of the paradigmatic model which was used in the European section of this present research²³.

²³ See Chapter 22, page 188 (already changed)

[The role of teachers in educational quality and academic achievement](#) Stronge, Gareis and Little (2006) discuss the problems relating to attracting, developing, retaining and paying quality teachers: ‘A central issue in the debate over teacher compensation systems ... is the degree in which motivation and compensation are related’ They go on to discuss teachers’ motivation. A common belief, which is supported by a number of studies, indicates that teachers: ‘engage and remain in their profession not primarily for extrinsic rewards – such as salary and recognition – but for intrinsic rewards, such as the satisfaction of seeing students grow and learn, and of collegiality with other teachers’ (Johnson, 1986). Day (2004) writes that teachers need to have a passion for teaching in order to carry out their work effectively. Veen (2003) confirms that some teachers now say that this passion is reduced because of the increasing pressure which they feel during their daily work.

[How does the introduction of educational reforms, ICT, educational technology and new forms of learning into schools affect educational quality and academic achievement?](#)

According to Machin, McNally and Silva, (2005), the view that ICT can help raise educational standards dates back to the Fifties. It relates to some of the original findings by Skinner (1954 and 1958), who claimed that new technologies in schools could make learning dramatically more efficient. According to Angrist and Lavy (2002, p. 735): ‘How technology affects learning has been at the centre of recent debates over educational inputs. ... Results from a survey of Israeli school-teachers show that the influx of new computers increased teachers’ use of computer-aided instruction (CAI). Although many of the estimates are imprecise, CAI does not appear to have had educational benefits that translated into higher test scores’. Jamieson-Proctor, Watson, Finger, Grimbeek and Burnett (2006, p. 3) stated that: ‘While there has been an ongoing push for many years to bring Information and Communication Technologies (ICTs) into classrooms and to integrate them into the curriculum, until recently little attention has been given to how such integration might be measured outside of simply counting the number of machines or calculating student to computer ratios’. This question of educational quality and academic achievement, and how these can be measured at international level will be discussed further in Chapter 22.

Chapter 14 : The impact of ICT on libraries and school libraries : implications for education

The historical context for libraries and school libraries in the third information age since the introduction of ICT is described in Chapter 3. The question which must be asked in this dissertation is ‘How have changes in school libraries since the introduction of ICT impacted education?’ Historically, a broad description of the purpose of school libraries was to ‘support instruction in the school’ (Gates, 19689), i.e. to support education. This chapter will discuss the impact of the introduction of educational reforms, ICT and new forms of learning on the goals of school libraries.

A new kind of learning environment In order support the new educational concepts, the role and historical goals²⁴ of the school library and information centre (SLIC) within the school have altered. These new objectives are described in the *School Library Manifesto: The School Library in Teaching and Learning for All* (IFLA/UNESCO, 1999) and the *School Library Guidelines* (IFLA/UNESCO, 2002). Also the role of the school librarian has changed, and is explained in detail in Chapter 15. While the traditional objectives of the school library in the promotion of literacy are still important, the SLIC now also provides facilities where pupils can take part in new kinds of learning, including a physical spaces where (groups of) pupils can have access to ICT and educational technology. In the SLIC, pupils from different age groups and classes can work individually or in groups, make use of information in traditional or digital form, use PCs and other educational technology, access the school network and the ELO, and receive individual help and assistance from the SLIC staff. The SLIC also provides instruction in new forms of learning, including new literacy skills, to the school community.

Although new forms of learning can be facilitated by a virtual environment, there is also need for a pupil-friendly physical learning environment within the school (Hay, 2006), with access to traditional, digital and virtual facilities, where pupils and teachers can acquire the skills needed for new kinds of learning, and where they can also practice these new kinds of learning. The SLIC fulfils these needs. It is at the heart of the learning process and is an integral part of the learning environment (Boelens, 2007). Statistics confirm that from 2005 to 2008 , there has been a dramatic increase in the use by pupils of the facilities in the SLIC at the Kalsbeek College.

²⁴ Described in Chapters 6, 7, 8, and 9.

Changes in the school library and information centre (SLIC) Since the research (local level) at the Kalsbeek College began, a new SLIC has been built²⁵. During the creation of the new SLIC, there were successes as well as failures, however it has received recognition throughout Europe for the high quality of the educational vision which was applied and is described in a number of academic papers.

Hay (2006, p. 37) refers to school libraries as learning laboratories. Her studies revealed the following:

No matter what the information or ICT task, no matter what resources or hardware or software, no matter what services or assistance was provided, a common theme that emerged throughout these student voice responses was that students value highly those forms of school library help that are functional, flexible and responsive.

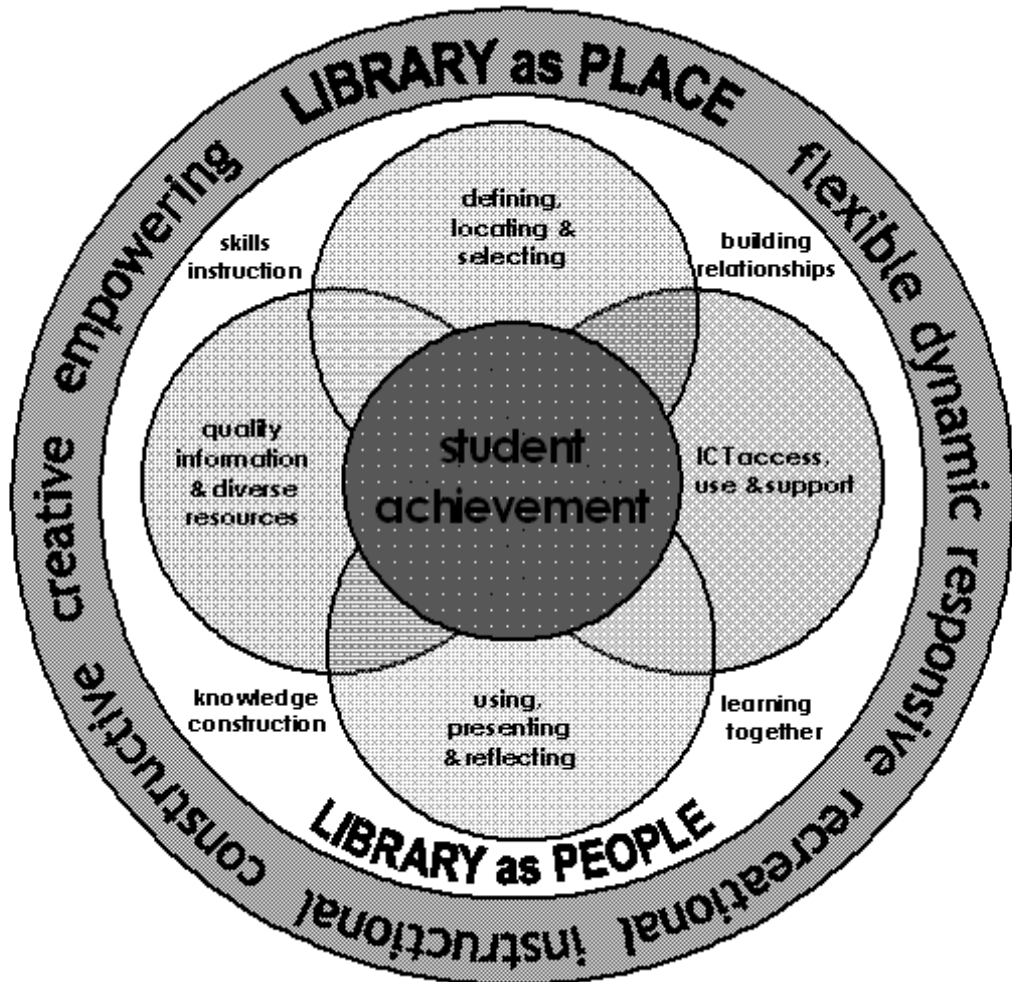
The above findings demonstrate an increasing dependence on, and demand for, a school library facility that provides students with access to 'state of the art' technologies, resources and services to support their learning. Students value the flexibility of access provided by the school library, as well as the expertise of the teacher librarian as an information and technology specialist who can help meet their needs. The students in this study identified the school library as a dynamic and unique place, compared to classrooms, PC labs and other specialist rooms within the precinct, because of the availability and flexibility of the resources and services of the school library as a facility, and the individualised and customised attention the teacher librarian and library staff could provide students at the point-of-need'

Hay recorded that pupils who were interviewed thought that the following description was central to what the school library ought to be: 'A positive learning environment that supports student learning, where students feel comfortable and can pursue their own information, ICT and recreational interests'. The findings from Hay's study (2006, p. 30) clearly demonstrate that school libraries can play a critical role in supporting student learning in the third information age. They also confirm Lonsdale's call to 'mount a strong case for recognising the positive impact of school libraries and school librarians on student learning' (Lonsdale 2003, p. 1). In her study, Hay provides the following illustration (Figure 6) which describes how students define the use of the school library in the third information age.

²⁵ See Chapter 20, page 133.

Figure 6

Model of how students define the school library in supporting their learning



Reference: Hay, 2006, p. 30.

While this diagram provides a clear illustration of the situation which exists, it does not specifically mention new forms of learning which take place in the school library and the important role which the school library staff plays in encouraging pupils in their use of these new forms of learning. During Hay's study, it is possible that pupils did not specifically mention new forms of learning because they were unaware of their actual participation. Figure 6 indicates that they did mention that they were receiving instruction in new skills, which may include new forms of learning and lifelong learning skills.

Chapter 15 : A new role and new responsibilities for the school librarian and information specialist

As mentioned in the Preface, this person – formerly known as the school librarian – has many different titles in different countries. The school librarians described in this dissertation are trained at tertiary level. They carry out their work using two different processes – the library process and the educational process²⁶, and have a combination of certified educational (pedagogical) and library skills, and preferably have a teaching accreditation. The need for and importance of these kinds of qualifications in the present day school library are confirmed by Thomas (2004) and Howard (1998). Clyde (1981) has described different versions of this training²⁷.

Major changes in the educational process have meant that the role of the school librarian and information specialist has changed. The AASL (American Association of School Librarians) (2010, p. 1) has provided a following definition for the work which this staff member now carries out: 'In their unique roles as information specialist, teacher, and instructional consultant, library media specialists actively participate in both the planning and implementation of outcomes-based education'. The referenced document goes on to describe these three different facets of the school library media specialist's role in detail. Furthermore, recent statements made by the AASL refer to the great impact of 21st century skills on the role of the school librarian in teaching these skills to the school community (AASL, 2010). The Research Foundation Paper *School Libraries Work!* (2008, p. 9) contains the following summary of this new role:

'The role of the library media specialist is diverse. He or she is at once a teacher, an instructional partner, an information specialist, and a programme administrator. Library media specialists play an essential role in the learning community by ensuring that students and staff are efficient and effective users of information. They collaborate with teachers, administrators, and others to prepare students for future successes.'

Not only that – the school librarian and information specialist must be aware of, and also understand new forms of learning and their application within the SLIC and throughout the school as a whole.

According to Loertscher and Todd (2003), Todd (2003a), Todd, Kulthau and Oelma (2004), and Woolls and Loertscher (2006), not only does the qualified school librarian encourage pupils to enjoy reading, develop their literacy skills and nurture good studying habits, but he or she also helps and instructs both teachers and pupils in the use of interdisciplinary information literacy skills. Information used in a correct way

²⁶ See Figure 12b, page 244 and Figure 13, page 245.

²⁷ See Chapter 3, page 29

becomes knowledge. It therefore follows that those who receive good instruction in information literacy skills have learned how to acquire knowledge and become independent learners (and therefore, lifelong learners). Kuhlthau (2004) speaks about the search for meaning – the way in which people approach their search for and interpretation of information. Todd (2007) and Gordon (2007) speak about the re-design of knowledge spaces: from information literacy to knowledge outcomes. The application of theories of guided inquiry affects academic achievement in a positive way.

Chapter 20 describes the SLIC and also the multidisciplinary and intermediary role played by the trained school librarian and information specialist plays at the Kalsbeek College, where the SLIC has become a new kind of learning environment where emphasis is placed not only the traditional goals of the school library, but also on the introduction of new kinds of learning.

This research, especially at European level, has received information from school librarians who operate at many different levels. The following information is included because of its international perspective. In July 2008 a discussion took place on the IASL listserv about the work of the information literate (school) librarian (in an international perspective). The following remarks, were posted by Elizabeth Greef, Head Librarian of St Andrew's Cathedral School in Sydney, Australia and former IASL Board member (Greef, 2008). She states that she is very interested in the development of information literacy, nurturing keen readers, collaboration between the library and classroom teachers and international development of school libraries. Her comments on the IASL listserv, which are included in this dissertation with her written permission, as follows.

'I guess we would tend to assume that any school librarian if they are any good and especially if they have had some training will be information literate. ...

If our core business is teaching information literacy and also providing an organised collection of resources within which these skills are to be used and developed, it is vital that we are exemplars of this. However, I would think the definition may have differences according to the country and type of resources available. ...

I would think the information literate school librarian would need a very sound grasp of information management - how to catalogue and organise resources and how to set up an efficient and effective system for managing use and loans of these resources and ways to promote these resources to users.

In some areas this may refer to mainly print resources, fiction, non-fiction, reference, etc. In other areas it may extend to understanding and teaching uses of subscription databases, use of software packages, audio-visual material, content management systems and Web 2.0 technologies such as wikis, blogs, podcasts and so on. It encompasses understanding the needs of your patrons, helping them find what they

need, developing systems to make these resources as accessible as possible. It may also include helping the users in organising and synthesising and presenting information, i.e. transformation of information. It involves being able to find what resources there may be to fill particular needs.

It also incorporates the whole idea of ethical scholarship, teaching students how to use information to avoid plagiarism and to acknowledge correctly sources used. In the school situation it may also include curriculum or task design to discourage plagiarism and to deeply integrate resource-based learning. This would require understanding of the curriculum, the tasks and skills required of students and then how to break these down and then construct them into a learning opportunity through a task.

The school librarian would have a good grasp of how to develop literacy of all kinds within students and also encourage reading for context and improvement of general comprehension and literacy skills. Information literacy is strongly connected to other forms of literacy.

Information literacy in the school context assumes that communication, some information transactions and development is happening. For this to occur it is very important that the information literate school librarian is highly collaborative, networks with other librarians, is approachable, has excellent communication skills, is flexible, is a lifelong learner and is an effective user of technology (if the school uses technology and/or technology is available).'

This statement has been included in this dissertation because of the quality of understanding which is expressed at an international level. Greef not only addresses school librarians from westernised countries with adequate financial resources; she addresses all school librarians, in an international way. This international perspective is very important to this dissertation.

[New skills which school librarians and information specialists need](#) In an attempt to specify the information and media skills which a teacher or (school) librarian might need to learn about Web 2.0 applications, Blowers (2009) created the Learning 2.0 instruction programme. She then went on to specify '23 Learning Things' which, in her opinion, teachers or librarians needed to learn about Web 2.0 applications. They include: becoming familiar with the objectives of Learning 2.0; learning more about lifelong learning; learning how to set up and register a blog; exploring Flickr; learning more about RSS feeds; setting up blog-lines; making use of an online image generator; using online research tools; tagging and using digital bookmarks; learning about wiki's and using them in innovative ways; making used of online productivity tools; discover how to share video's, use podcasts and downloadable audio and music; learning more about online libraries and audio books. These applications have been specified in this dissertation in order to show how complex they are and also to emphasise the fact that

the school librarian and information specialist must constantly update his or her skills. New forms of ICTs are continuously becoming available. This would imply that new forms of information are also being produced and that new skills are needed in their application and use (in an educational context). In co-operation with Blowers, online training programmes have been set up in different countries so that librarians can become familiar with these skills.

This thesis questions the percentage of teachers who actually use these applications in their teaching and who also keep up with the continuing changes in the use of these technologies. Therefore the role of the school librarian, as the person who assists teachers to apply these new applications in teaching, becomes even more important. On the other hand, educators could ask how essential these (21st century learning) skills are in order to maintain educational quality. At the end of 2009, a number of new research projects were set up in order to assess their importance in education and how often these applications are actually used during the educational process – results are expected to be published in 2010.

Chapter 16 : Educational quality, academic achievement and the impact of the school library and information centre (SLIC)

Research confirms that academic achievement is increased if a pupil has had access to the school library and information centre (SLIC) and has received interdisciplinary instruction in new learning skills (including information literacy skills) (Todd, 2003a) and (Todd, Kuhlthau and Oelma, 2004). Todd (2003b) states that there is irrefutable evidence that school libraries boost student achievement. Also, in three different publications on the subject of 'learning to learn', Fender (2004), Strichart and Mangrum (2001) and Riedling (2006) all confirm that pupils who have 'learnt to learn' get a better mark for a given task. Riedling specifically mentions an increase in academic achievement thanks to the learning skills which are taught in the school library and information centre. The Research Foundation Paper *School Libraries Work!* (2008) supplies information about research which supports the following statements: with regard to academic achievement:

'School library media centers can contribute to improved student achievement by providing instructional materials aligned to the curriculum, by collaborating with teachers, administrators and parents; and by extending their hours of operation beyond the school day' (p. 2).

'As mounting evidence affirms, school libraries staffed by qualified school library media specialists **do** make a measurable difference on student achievement' (p. 9).

School library programs influence learning outcomes and student achievement when:

'Library media specialists collaborate with classroom teachers to teach and integrate literature and information skills into the curriculum' (p. 5).

'Library media specialists partner with classroom teachers on projects that help students use a variety of resources, conduct research and present their findings' (p. 6)

'Library media specialists are supported fiscally and programmatically by the educational community to achieve the mission of the school' (p. 6).

Last but not least:

'Credentialed school library media professionals promote, inspire and guide students towards a love of reading, a quest for knowledge, and a thirst for lifelong learning' (p. 16).

Loertscher and Todd (2003) explain how data has been collected in the USA to support the statement that school libraries have a definite impact on academic achievement. Evidence was collected at the learner level, the teaching unit level and the organizational level in two dimensions: direct evidence and indirect evidence. They then describes the aspects of the school library media programme which should be

measured: collaboration between the school leadership, the teaching staff and the school library and information (media) centre; reading; information literacy and technology.

Loertscher and Todd (2003) have also published a series of core beliefs around which an effective school library programme, which in turn boosts academic achievement, is based:

The first key belief is that the provision of information and information services makes a difference in the lives of people. ...

‘People are not merely passive recipients of information, empty receptacles into which information can be poured; rather, people engage actively and highly selectively with information that surrounds them.’ ...

‘Conceptualising information as it is internalised by people, and in terms of the differences of effects that information makes to people puts emphasis on the user of information, and shifts the professional responsibility from a concern about the transmission and transfer of information ... to a concern for the way in which information enables people to build new understandings’ (p. 1).

In other words, this quotation talks about the way in which people actually acquire knowledge.

The second key belief is that learning, in the complex and diverse information environments which have evolved in the third information age, does not happen by chance.

‘The key role of the trained school librarian centres on pedagogical intervention, which directly impacts on and shapes the quality of student learning through their engagement with information. This explicit, systematic and planned pedagogical intervention must be the distinguishing and observable characteristic of the role of the school librarian. This role revolves around working closely with classroom teachers to design authentic learning experiences and assessments that integrate a range of information and communication abilities needed to meet curriculum objectives, and to provide learning opportunities that encourage students to become discriminating users of information and skilled creators of new knowledge’ (p. 2).

Underpinning this approach is the belief that people’s engagement with information is something which cannot be left to chance. Information literacy, as the centre piece of the instructional role of the teacher-librarian, is about pedagogical intervention. This essential role is clearly expressed in the *School Library Manifesto* (IFLA/UNESCO, 1999).

The third key belief is that pedagogical intervention brings transformation.

‘The knowledge, skills, attitudes and values of learners are shaped and grow through their engagement with the school library and its pedagogical intervention’ (p. 3).

Lance and Loertscher (2005) support the research described by Loertscher and Todd (2003) and also provide ideas which can be used by the school librarian to implement a successful school library programme.

Research carried out in secondary schools in Scotland by Williams and Wavell (2001, p. i), between August 1999 and February 2002, confirmed that involved focus groups of teachers and pupils believe that school libraries can contribute to learning:

‘The collective perceptions of the impact of the school library were:

- The acquisition of information and wider general knowledge;
- Skills development in the areas of finding and using information, computer technology skills and reading skills;
- Higher achievement in schoolwork;
- Developing a study and reading habit that encourages independent learning;
- The ability to use these skills confidently and independently and the ability to transfer these skills across the curriculum and beyond school;
- The development of interpersonal and social skills, including working collaboratively.’

This study identifies some useful tools which school librarians can use to monitor the impact of the school library and information centre on learning. These include: ‘student observation and their activities and learning in the school library; discussion with and questioning of students about their work, during and at the end of their activities; analysis of submitted work to identify the learning gains; discussions with other members of the teaching staff about work attitudes, and related incidents; and the examination of reader records’(p. iii).

School librarians throughout the world are being encouraged by national (national school library associations), European (ENSIL) and international school library groups (IASL and IFLA, School Libraries Section) to collect data and to write research papers which confirm the fact that the school library and information centre and the work done by the qualified school librarian (teacher librarian) play a clear role in the academic achievement of pupils. When reviewing this evidence, it becomes clear that skills learnt in the school library and information centre are very important lifelong learning skills.

Todd, Kuhlthau and Oelma (2004) reveal that 99.4% of students in grades 3 to 12 believe that school libraries and their services help them to become better learners. Some 88.5% of the 13,123 Ohio students surveyed say that the school library helps them get better grades on projects and assignments, 74.7 percent say it helps with

homework, and 92.4 % say computers in the media centre help improve their overall academic work. The study, which also surveyed 879 faculty members – including principals, assistant principals, teachers and media specialists – shows that students and educators alike strongly believe that school libraries are key to learning. This study has been replicated in Australia by Hay, (2005 and 2006), with similar results. She emphasises the importance of the teacher-librarian's instructional intervention (2006, p. 34):

'Student responses ... highlighted appreciation of the assistance provided by the teacher librarian in developing students' search skills, including class-based and individual instruction, as well as the creation of web-based tutorials and guides on selection and use of search engines. ...

Guidance by way of the school library's website was also noted by some students, particularly subject- and topic-based gateways to pre-selected web resources. Some students also noted the convenience of being able to access this kind of support while working from home as well as at school. Students also described a range of helps in terms of effective information use'.

In conclusion, academic research confirms that school libraries enhance academic achievement. Thousands of pupils who were interviewed in different countries have testified to this fact.

Chapter 17 : Other information relevant to the role of libraries and school libraries in education

School library law Many countries throughout the world have a school library law which provides for a statutory school library with a fully qualified school librarian at all levels of compulsory education throughout the entire country. This law usually states that the school librarian and information specialist is part of the teaching staff. Nevertheless, school library laws come in different shapes and sizes. In some countries, the law specifies that only primary schools should have a school library; others state that school libraries should be available for certain classes in (upper) secondary schools. In others, the school must provide a school library but it only needs to be open for a limited number of hours each week. Also, the law does not always specifically state that the school library has to be run by a qualified librarian. In small schools and villages, one school librarian may co-ordinate a number of small school libraries. In many countries, (with or without a school library law) there is no clear definition of what a school library (or for that matter the school librarian) actually is.

In Europe, Tables 9a, page 185 and 9b, page 186 show that interviewees have provided evidence which confirms that while some countries already have a school library law, others have a school library Bill which is waiting to be presented to the national parliament. Some European countries have no school library tradition, which means that they do not have a school library law. The provision of a school library and a school library law is often related to educational funding (or the lack of money to provide these facilities). Some countries in Europe are still using available funds for national adult literacy projects; few funds are available for school libraries. Jurisdiction for school libraries also varies from country to country. In some European countries, school libraries and education fall under the jurisdiction of the provincial government. This may mean that while one province or state may have excellent school libraries with good funding, another may have none at all. Also, while some individual schools may have excellent school libraries, others cannot afford or choose not to have one. In accordance with recent educational reforms relating to school autonomy (Eurydice, 2007), this decision may be left up to the principal. This research has shown that many principals do not actually know what a good school library is and are unaware of its major educational benefits²⁸.

²⁸ See Chapter 3, page 33.

The role of international library organisations in supporting the work of school libraries

IFLA (The International Federation of Library Associations and Institutions) The IFLA (2008a) is the leading international body representing the interests of library and information associations. It is the global voice of the library and information profession. Documents published by the IFLA (in collaboration with UNESCO), including the *School Library Manifesto* (IFLA/UNESCO, 1999) and the *School Library Guidelines* (IFLA/UNESCO, 2002) are considered by many school librarians to be the most important (international) documents which are relevant to their work. The *School Library Manifesto: The School Library in Teaching and Learning for All* defines the mission and goals of the school library or resource centre and the profile of its staff. It emphasises equal opportunities for all learners. In March 2007, it was available in 35 different languages worldwide (IFLA, 2008a); including 23 languages which are spoken in Europe (see Table 3, below). School librarians from many different countries throughout the world can read it, become familiar with it, and use its contents to promote their work. According to the *Manifesto*:

The school library provides information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. The school library equips students with life-long learning skills and develops the imagination, enabling them to live as responsible citizens'.

The *School Library Guidelines* were first published in 2002 to help schools and school librarians to implement the principles expressed in the *Manifesto*. These guidelines were also produced to inform decision makers at national and local levels around the world, and to give support and guidance to the library community so that they could develop a mission and a policy for the school library. Since their publication in 2002, the *School Library Guidelines* have been translated into 16 different languages, including 12 languages which are relevant to this study (see Table 3, below).

Table 3

Translation of the IFLA/UNESCO School Library Manifesto and the IFLA/UNESCO School Library Guidelines into official and national languages.				
Country	IFLA/UNESCO School Library Guidelines in 1st language	IFLA/UNESCO School Library Guidelines in 2nd language	IFLA/UNESCO School Library Manifesto in 1st language	IFLA/UNESCO School Library Manifesto in 2nd language
1 Albania				
2 Andorra	Catalan	French, Spanish, Portuguese	Catalan	French, Spanish, Portuguese
3 Armenia				
4 Austria	German		German	
5 Azerbaijan				
6 Belarus	Russian		Russian	
7 Belgium	Dutch, French, German		Dutch, French, German	
8 Belgium (Dutch speaking)	Dutch		Dutch	
9 Belgium (French speaking)	French		French	
10 Belgium (German speaking)	German		German	
11 Bosnia & Herzegovina			Croatian	
12 Bulgaria				Turkish
13 Croatia			Croatian	
14 Cyprus	English		Greek, Turkish, English	
15 Czech Republic	Czech		Czech	
16 Denmark		German		German
17 Estonia		Russian		Russian
18 Finland	Swedish		Swedish	
19 France	French		French	
20 Republic of Georgia		English		English
21 Germany	German		German	
22 Greece			Greek	Turkish
23 Hungary		German	Hungarian	German
24 Iceland		English	Icelandic	English
25 Republic of Ireland	English		English	
26 Italy	Italian		Italy	
27 Kazakhstan				
28 Kosovo				Turkish
29 Kyrgyzstan				
30 Latvia		Russian	Latvian	Lithuanian, Russian
31 Liechtenstein	German		German	
32 Lithuania		Russian	Lithuanian	Polish, Russian
33 Luxembourg	French, German		French, German	
34 Republic of Macedonia				
35 Malta		English		English
36 Moldavia		Russian		Russian
37 Monaco	French	English, Italian	French	English, Italian
38 Montenegro				
39 Netherlands	Dutch		Dutch	
40 Norway			Norwegian	
41 Poland			Polish	
42 Portugal	Portuguese		Portuguese	
43 Romania		German		Hungarian, German
44 Russian Federation	Russian		Russian	
45 San Marino	Italian		Italian	
46 Serbia	Serbian		Serbian	
47 Slovakia				Hungarian
48 Slovenia			Slovenian	
49 Spain	Spanish, Catalan		Spanish, Catalan	
50 Sweden	Swedish		Swedish	
51 Switzerland	German, French, Italian		German, French, Italian	
52 Tajikistan				
53 Turkey			Turkish	Arabic, Greek
54 Turkmenistan				
55 Ukraine				
56 U.K. (United Kingdom)	English		English	
57 U.K. (England)	English		English	
58 U.K. (Northern Ireland)	English		English	
59 U.K. (Scotland)	English		English	
60 U.K. (Wales)	English		English	
61 Uzbekistan				

Note 1. This table shows that in 41 countries which have taken part in this survey, a translation of the IFLA/UNESCO School Library Guidelines is available in the official or national language, or in another language which is spoken in that country.

Note 2. This table shows that in 50 countries which have taken part in this survey, a translation of the IFLA/UNESCO School Library Manifesto is available in the official or national language, or in another language which is spoken in that country.

Countries marked in this colour have either limited or no apparent access to translations of one or both of these documents.

This table refers to countries in Europe which are part of this study.

The IFLA has also published the *School Library Advocacy kit* (IFLA, 2006a), which school librarians and library associations throughout the world can use to raise the profile of school libraries and resource centres in their own schools, their own regions and their own countries. The IFLA also has a School Libraries Section (IFLA, 2006b), which provides an international forum for exchanging ideas, experiences, research results and advocacy. The Section's goals are as follows: to promote and advocate the role of the school library and resource centre; to delineate the role of the school librarian; to assist school librarians in their professional development, and to promote and disseminate research in the field of school librarianship.

In 'Libraries for Lifelong literacy' (IFLA, 2003a, p. 1), Ms. Kay Raseroka, IFLA President from August 2003 to July 2005, defines the role and responsibility of libraries:

'... to assist all people, and especially children and young people, to develop the range of competencies necessary to engage fully with the Information Society. ...

The special role of school libraries has been delineated in the *IFLA/UNESCO School Library Manifesto: The school library in teaching and learning for all*. (IFLA/UNESCO 1999):'

According to Raseroka:

'We (IFLA) are committed to realising our common vision of the Information Society for ourselves and for future generations. We recognise that young people are the future workforce and leading creators and earliest adopters of ICTs. They must therefore be empowered as learners, developers, contributors, entrepreneurs and decision-makers. We must focus especially on young people who have not yet been able to benefit fully from the opportunities provided by ICTs.' (IFLA, 2003b, para 11).

Mr. Alex Byrne, IFLA President from August 2005 to July 2007 made the following statement (IFLA, 2005b, p. 1).

'IFLA and its members share a common vision of an inclusive Information Society in which everyone can create, access, use and share information and knowledge and which is based on the fundamental right of human beings to both access and express information without restriction. ...

Libraries and information services provide access to information, ideas and works of imagination in any medium and regardless of frontiers. ...Libraries – and especially national, public, school and university libraries – express the aspirations of civil society, reflecting and responding to the interests and hopes of their communities. ...

International understanding and dialogue is supported through access to information and knowledge from other nations and cultures. IFLA and its members are committed to addressing the digital divide and the information inequality that results from it.'

IASL (The International Association of School Librarianship) Since its inauguration in Jamaica in 1971, and its first conference in London in 1972, the IASL has held annual conferences in various parts of the world, allowing school librarians to meet and discuss many different aspects of school librarianship. The IASL also has a very useful listserv which allows school librarians from all over the world to communicate with each other (usually in English). The *IASL Advocacy information* (IASL, 2005) provides resources for school library advocacy, including access to documents which confirm that school libraries make a difference to student achievement and that school libraries have a positive impact on students and on learning (IASL, 2008b).

AASL (American Association of School Librarians) is based in the USA; its web-site contains a wealth of information in the English language, which is used by school librarians throughout the world (AASL, 2010). Among other things, this site contains excerpts from *Information Power: Building Partnerships for Learning* (AASL and AECT, 1998), which are concerned with the roles and responsibilities of the School Library Media Specialist and the teaching of information literacy skills. This site also contains the *Standards for the 21st-century learner* (AASL, 2007), a very important document which supports and also clearly outlines the new work and endeavours of the school librarian and information specialist in the 21st-century.

Cross-border, cross-language and cross-cultural co-operation and communication in Europe Without good co-operation and communication throughout Europe, it would not have been possible to carry out the European section of this study. In 2007, the European conference on school libraries was held in 2007 in Wels, Upper Austria. It was organised by the Library Service for Schools (*Bibliotheken-Service für Schulen*) (BUCH.ZEIT, 2008). 130 school librarians, information specialists and other educators travelled from 18 different countries in Europe to attend the meeting and took part in discussions about the important changes in the work being carried out by school librarians and information specialists since the introduction of ICT and new forms of learning into the schools. They also discussed the need for new (European) training programmes which would help school librarians and information specialists to carry out these critical tasks.

National library associations and national school library associations provide important support, information and ideas at national (and sometimes state) level (in national and local languages), for school librarians throughout Europe. Many have

their own communication tools – a web-site, a listserv, brochures etc. These organisations often provide an official link between (school) libraries and other governmental institutions. They also provide a link with the IFLA and sometimes with the IASL.

Other organisations which promote school librarianship in Europe The following organisations also stimulate school librarianship in Europe and provided useful assistance:

ENSIL (European Network for School Libraries and Information Literacy): In March 2003, representatives of associations for teachers and librarians and from Ministries of Education from eight European countries organised a meeting in Amsterdam, the Netherlands to discuss the importance of promoting school librarianship and information literacy in Europe. Delegates from Austria, Italy, the Netherlands, Norway, Portugal, Russia, Sweden and the United Kingdom set up an informal group, the European Network for School Libraries and Information Literacy (ENSIL, 2008), and adopted the following statement:

'Amsterdam Statement on School Libraries and Information Literacy.

International research shows that the quality of students' learning outcomes is greatly enhanced by effective school libraries. All learners in each country of Europe are entitled to quality school library/media centres and services. In order to achieve this, each country in Europe, and the European Union, should adopt and implement the principles of the IFLA / UNESCO School Library Manifesto. ENSIL invites other library and educational organisations throughout Europe to join and contribute to further discussion and action.'

In 2008, ENSIL became a formal foundation (Stichting ENSIL), registered in the Netherlands. It now has more than 80 participants from 19 countries in Europe. It maintains its own web-site (ENSIL, 2008), which provides useful information for (European) school librarians and information specialists. Although the official language of ENSIL is English, the network recognises the language and communication problems which arise within Europe. All European school library associations are invited to develop at least one page about their activities, in English, for the ENSIL web page. These actions have helped to provide information about school libraries throughout Europe. ENSIL also has a useful listserv (language: English).

Other organisation which such as, for example, the ECIS (European Council of International Schools) (ECIS, 2008a and 2008b) and also AILIS (Association of

International Librarians and Information Specialists) (AILIS, 2008) support school librarianship at European level.

European school library projects provide knowledge and expertise to school librarians and information specialists, teachers and school leaders. SLAM (2000), a European Community Socrates funded project, with partner schools in the Czech Republic, Denmark, Norway and the UK, was followed by the GrandSLAM (2002) project, with partner schools from the Czech Republic, Denmark, Ireland, Lithuania, Norway, Portugal, Spain and the UK. SLAMIT (2006) builds on the experience and outcomes of the two earlier projects and now seeks to publicize school libraries as learning centres at the heart of the curriculum. Accent is placed on the introduction of new enquiry-based approaches and learning styles embedded within the curriculum.

Chapter 18 : Summary of Part 1

The information which has been reviewed in Part 1 is related to a series of different subjects and topics which are relevant to this research at local, Dutch national and European levels. There are links between one subject and another, which are sometimes quite complex. Part 1 begins by describing three major historical changes have taken place in education since the 1960's: the introduction of educational reforms; the introduction of ICT and educational technology into schools throughout the world since the 1970's and the introduction of new forms of learning. It then attempts to see how these changes have affected the school community as a whole, and the individual groups within the school community (pupils, teachers and school leadership). The expectations were that these changes would enhance the educational system, however changes in education which may not have been anticipated have occurred. For example, notions of literacy, which are central to most definitions of education (Abbott, 2000), (Bruce, 2002), (Lankshear *and* Knobel, 2008) and (elearningeurope.info directory, 2009a) have changed as a result of the introduction of ICT into schools and into society.

The introduction of ICT within the schools has been described in detail in Chapters 7, 8 and 9. The review of the literature shows that the ways in which it has been implemented into different schools depend upon the attitudes and vision of school leaders, teachers, other staff and sometimes parents. There are clear indications that the use of ICT in schools lacks infrastructure. Many of the (technical) goals which were set (number of PCs per pupil, etc.) have been met in a number of countries, however, research reveals that some teachers have been unable to keep up with the ever increasing changes in ICT, and have been unsuccessful in implementing the use of ICT or educational technology into their lessons. While expensive hardware and software has been installed in schools, a large number of teachers is either unable to use it in their teaching practice, or can only use it to a certain extent (Cuban, 2003).

Other problems in ICT usage for educational purposes are becoming apparent. The cost of ICT within the school is becoming prohibitive; outsourcing and maintenance costs are also high. Computers and networks which were installed a number of years ago are already out-of-date and need to be replaced. Although new educational technologies (such as ELO's and whiteboards) are being installed, the costs of properly exploiting these items were often not anticipated ten years ago. New (technical) staff members have been employed to manage and cope with the use of ICT within the schools, resulting in (additional and sometimes unexpected) increases in personnel costs, which have, in turn, put a strain on the overall budget of the school.

When goals were set for the introduction of ICT and the implementation of new kinds of learning, expectations were that the appropriate usage of ICT within the school would help to support new forms of learning and that educational quality and academic achievement would increase. This research will attempt to investigate these issue and to find out whether or not these expectations have been realised, using international guidelines

Also, the continuous increase in the amount of information (multilingual, in traditional and digital form, and partly available through the use of ICT) provides questions for schools regarding its application and use. Both pupils and teachers need to learn how to use this information for the benefit of education and for the acquisition of knowledge. Indications are that the roles and responsibilities of stakeholders within the school have changed or are in the process of altering. It appears that it will be some time before schools are fully adapted to these changes. This may have to do with the continuous process of change which is still taking place. National policy makers and school leaders need vision and motivation in order to meet these challenges.

The school library and information (SLIC) and the qualified school librarian and information specialist may provide a partial solution to these challenges because of his or her knowledge of the subject, and may be in a position to help and assist school leaders, teachers and pupils through this difficult period of change. An attempt will be made to see whether or not the use of the SLIC, applied under certain specific conditions at local, national and European levels, can be used to solve some of the problems which have arisen and which have been described in the review of the literature (Part 1). This dissertation will address these issues, at local, Dutch national and European levels.

Part 2 – Methodology

Chapter 19 : Methodology

This international study has been carried out at three distinct levels and crosses two different disciplines (Comparative Education (Sociology), and Library and Information Science – LIS), adding extra dimensions to the study. These two different disciplines merge, in the search for answers to research questions.

It was difficult to locate cognate studies, however, where possible, investigations which have been carried out in either one or two of the disciplines, have been described. Stromquist (2002), Arnove (2003), Suárez-Orozco (2004) and Jacobs (2010) explain the need for and difficulty in carrying out this new form of (globalised) research. They refer to the global transformations that are taking place in society and the urgent need for globalised studies in different disciplines. Crossley and Watson (2009) also explain the difficulties which can be encountered in this type of comparative and international research, which may be connected to the variety of situations or conditions which need to be carefully studied. They mention the need for contextual analyses and research designs that provide cultural insights regarding the impact of globalization on varied educational realities and argue for increasing cultural and contextual sensitivity. They refer to the differences in international educational (and in the case of this research, library and information science) traditions and to tensions which arise between global and local priorities and conflicting agendas. Also, the limitations of statistical data are mentioned. In order to carry out this present research, there was a need for a strategic framework (Patton 1980, p. 39) to position the research project. Part 2 describes the context and structure of the research.

Research purpose Given the research purpose of the study was to examine the evolving role of the school library and information centre in digital Europe, a reasonable assumption of the research is that in the 21st century the school library and information centre (SLIC) and the school librarian and information specialist, working together with school leaders and teachers, can play an invaluable role in the educational process within the school. The thesis was: not only can the SLIC and the school librarian and information specialist provide traditional library services and promote literacy; they can also help in the efficient, structured implementation and use of ICT and educational technology (as educational tools) and new forms of learning throughout the school.

This research aims to explore whether essential 21st century learning skills can be taught in the SLIC, as an interdisciplinary learning environment.

The SLIC is managed by the school librarian and information specialist. Under this person's leadership, this research examines whether the correct implementation of the SLIC within the school can cause an increase in educational quality and in the academic achievement of pupils. If the school librarian and information specialist cooperates with the school leadership in the preparation and implementation of an information policy for the entire school, and also provides instruction and assistance to members of the teaching staff so that they can effectively implement new information trends into their teaching practice, taking advantage of the new forms of learning which are evolving during the contemporary information age, what benefits accrue?

The educational sub-matrix known as the Kalsbeek Information Literacy Matrix (KILM) described in Chapter 20 was developed between 1997 and 2008 in order to maintain traditional educational goals and objectives at the highest possible level while facilitating the introduction of educational reforms, new forms of learning and 21st century learning skills throughout the school. This research study therefore examines the use of ICT and educational technology as effective educational tools, and new forms of learning and 21st century learning skills which may result in an increase in the learning outcomes of pupils.

The evolution of the KILM is described in Chapter 20. It makes optimal use of the facilities of the traditional and digital SLIC so that it becomes the heart of the interdisciplinary (multilingual) learning environment within the school. Its main purpose is to teach interdisciplinary information, media and other new literacy skills to both pupils and teachers.

This study aims to examine whether or not the KILM can be successfully used in other schools and will address this at Dutch national and European levels. Furthermore the research will examine school libraries and information centres throughout Europe, in an attempt to gauge the specific role which this facility plays in increasing the quality of education which pupils receive and their overall academic achievement.

Limitations of this study This study is limited by the following factors:

- The specific period of time during which this study took place and the facilities which were available for (and in) school libraries during that period.
- The countries which are included in this survey²⁹.

²⁹ See Table 4, page 175.

- The difficulty in collecting reliable qualitative and quantitative data in some countries, sometimes for political or financial reasons³⁰.
- The quality of information received from various sources³⁰.
- Language. This is an international study which contains cross-cultural research. It has been carried out in the English and Dutch languages by a bilingual researcher who has worked at tertiary level in both these languages. Table 5 (page 176) shows that in many of the countries in this study, English is not the first or second national or official language of the population, making it difficult for some interviewees to understand the English language questions and to answer them in a correct manner.
- The local study at the Kalsbeek College and the Dutch national study are carried out in Dutch secondary schools. The European research began as a study of SLICs in secondary schools, however as the study progressed, it became apparent that, in some countries, specific data on secondary school libraries was either unavailable or could not be provided as a separate school type. For this reason, school libraries in primary schools have also been included in the European section of this study.
- The schools studied are either government-funded, private or international schools. The school's funding is relevant to the staffing and facilities which are available in each individual school. Differences in school (educational) policies and systems throughout Europe complicate this investigation, as follows:
 - Differences in school library tradition and differences in government attitudes and funding for school libraries and information centres throughout Europe.
 - Differences in library structures throughout Europe (Schweizer, 2005).
 - Differences in the training of (school) librarians throughout Europe (Schniederjürgen, 2007).

Philosophical perspectives Since this international study covers two different disciplines – Comparative Education (Sociology) and Library and Information Science (LIS) - literature regarding possible methodologies in both disciplines inform the research (Punch, 2009, Cresswell, 2009, Myers, 2010 and Patton, 1980, 1987 and 2008, Sherman and Webb, 1988, Creemers, 2008, Broady-Preston, 2009 and Reynolds, 2002. Punch (2009) specifically discusses research methods in education, which are relevant to this study, specifically, empirical research in accordance with

³⁰ See Chapter 22, page 178-9.

Punch's definition (2009, p. 2), which is 'experience (or observation) as a foundation or source of knowledge; direct experience or observation of the world... by obtaining direct, observable information'. The philosophical perspectives and assumptions (or worldview), which have been used to approach the research problem, could be said to be positivist (Myers, 2010) and post-positivist (Cresswell, 2009, p. 5-6), when understanding of the research problem emerges from past and present experiences and interactions are interpreted in socio-political (i.e. both social and political) contexts.

Selection of a research design and model According to Patton (1980, p. 39), the research model (or plan of action) should provide basic direction for the research. The methodology in this study presents research questions at local, Dutch national and European levels in two different disciplines. This research uses mixed research methods (a combination of both quantitative and qualitative data), as described by Patton (1980, p. 18), Punch (2009) and Cresswell (2009, p. 12), who describes quantitative measures as:

'Survey research (which) presents a numeric description of trends, attitudes or opinions of a population (or group) or a sample of that group. It Includes: cross-sectional and longitudinal studies using questionnaires, or structured interviews for data collection'.

Patton (1980, p. 24) states that a survey using quantitative methods could contain closed questions or open-ended questions. 'Quantitative measures are succinct, parsimonious and easily aggregated for analysis. Quantitative data are systematic, standardized and easily presented in a short space' (Patton, 1980, p. 28). On the other hand, Patton explains that 'if a phenomenon needs to be understood because little research has been done at this level, it merits a qualitative approach. Qualitative research is exploratory and is useful when the research does not know the important variables to examine' (Patton, 1980, p. 18). 'Qualitative methods are used to discover what is happening and then verify what has been discovered' (Patton, 1980, p. 46-47). Mixed methods design is useful when either quantitative or qualitative approach by itself is inadequate.

Patton (1980, p. 39) explains that qualitative research designs require that the evaluator gets close to the people and situations being studied in order to understand the incidental details of program life. The evaluator gets close to the programme through physical proximity for a period of time. This closeness develops in a social sense of intimacy and confidentiality. This research is carried out using these strategies and is especially relevant for the work study carried out at the Kalsbeek College (local level), where the researcher was continuously present on the school

premises. Also, Chapter 22, page 172 refers to the relationship which was built up between the researcher and school librarians throughout Europe, which resulted in their willingness to provide information. In many cases both traditional and online (CMC) contact took place (page 119).

Broady-Preston (2009), who writes specifically about the library and information profession, suggests that the professionalism and professional identity of the participants in the study should be examined, and that also the generic developments, including drivers of change within the profession should be studied. In the review of the literature (Part 1), an attempt has been made to review these topics in both disciplines, including the context of change which is taking place in both disciplines. These factors, including the new identity, roles and responsibilities of the different stakeholders will then be related to the study at local, national and European levels.

Creemers (2008) has also provided strategies for cross-national studies. However, Arnove and Torres, (2003, p. 1) explain that

‘...forces shaping comparative education at the turn of the 21st century, such as events on the World stage and corresponding changes in economic, social and educational policies, are causing conceptual and methodological frameworks to be constantly reshaped. Theories and methods for studying social-society relations undergo change in accordance with advances in knowledge, shifts in paradigms and increase in the capacity to process and analyse large amounts of data statistics in more sophisticated ways’.

They suggest that the working of a global economy and the increasing interconnectedness of societies pose common problems for educational systems around the world, relating to issues of quality and educational opportunities and outcomes for differently situated social groups, especially those who historically have been most discriminated against – women, ethnic minorities, rural populations and working-class people. A dialectic is at work between the global and the local. Understanding this interactive process, the tensions and contradictions, is central to this study.

[Research questions in an international context](#) are as follows:

- Is it possible to define the school library and information centre (SLIC), in an international context?
- What is the role of school libraries and information centres (SLICs) and the library staff within the school since the introduction of educational reforms, ICT (as an educational tool) and new forms of learning into schools?
- How have changes in school libraries since the introduction of ICT impacted education?

- Is it possible to evaluate the effect which school libraries have on educational quality, learning outcomes and academic achievement?
- What are the critical success factors?
- What increases in educational quality, learning outcomes and educational achievement could be expected if the application and use of the SLIC is clearly defined?

Research questions : local level are described as follows:

- Would it be possible to create a direct link between the educational matrix which has been developed at the Kalsbeek College and the work of the school library and information centre?
- Could a sub-matrix for this purpose be designed and if so, how can it be described?
- Would the use of an effective sub-matrix in the SLIC lead to an increase in educational quality and academic achievement throughout the school? How could this be assessed?
- What are the successes and failures observed during the application of the sub-matrix? Specifically, what is the importance of co-operation throughout the entire school?

Research questions : Dutch national level are described as follows:

- What is the present state of school libraries at Dutch national level? What is their mission?
- Would it be possible to introduce the sub-matrix known as the KILM into other secondary school libraries in the Netherlands?
- What are the critical success factors for the implementation of the KILM at Dutch national level?
- What facilities would be needed for a successful implementation of the KILM?

Research questions : European level could be described as follows:

- What is the present state of school libraries at European level? What is their mission?
- What are the goals of the school library and information centre in digital Europe?
- Would it be possible to implement the sub-matrix (KILM) which has been developed at the Kalsbeek College into school libraries and information centres in other schools throughout Europe?
- What are the critical success factors for the implementation of the KILM at European level?

Research format Punch (2009, p. 10) states that the research model should contain the following:

- a plan for the research in terms of research questions;
- a perception of the data which is necessary to answer these questions;
- research design to collect and analyse the data.

The data will then be used to answer the research questions. In an attempt to obtain reliable descriptive data, such as direct quotations, descriptions, case documentation and qualitative measurement (described by Patton, 1980, p. 38) both traditional methods and also Computer-Mediated Communication (CMC) have been used, including Internet and e-mail resources. In this present research, school libraries in 61 different countries are studied. It is impossible to travel to all these countries and carry out individual, face-to-face studies and interviews. For this reason CMC is used to obtain some of the data. Lindlof and Taylor (2002, p. 249) define this use of CMC as 'the process through which humans create, maintain and transform meaning by interacting with computerized technology' and describe it as a valid communication method in qualitative research. Mann and Stewart (2000) also confirm that researchers can employ Internet-based qualitative methods to collect rich, descriptive, contextually-situated data. Descriptions of CMC now include traditional communications using computer-mediated formats such as e-mails, instant messaging, chat rooms and also other forms of text-based interactions such as text messaging. Also CMC involves Internet-based social networking (Web 2.0 technology), (Wikipedia, 2010a). This raw data is collected as an open-ended narrative, without attempting to put programme activities or people's experiences into predetermined, standardized categories, such as responses or choices that compromise typical questionnaires or tests. The purpose of the data is to understand the point of view and experiences of other persons.

Patton (1980, p. 36) agrees with the sociologist John Lofland (1971) that this is acceptable qualitative data for academic research. Also, Hewson, Yule, Laurent and Vogel (2003, p. 60) describe the use of the Internet in academic studies as an acceptable research tool. Furthermore, Hine (2005) discusses the ethical responsibilities of new forms of (online) research relationships in social research. On page 19, she talks about online research relationships, similar to those which have been used during this study.

Exploratory research : review of the literature According to Patton, (1980, p. 43), the researcher should examine the setting (environment or context) of the study. For this reason, during exploratory research, a specific review of the literature was

made, in order to provide (historical) background information for this thesis (Chapter 2). Figures 1 (page 16) and 2 (page 17) describe the information search which took place.

Research Format : Local level Qualitative research, using Patton's definition (1987, p. 7), will be carried out as follows. Firstly, a careful study will be made of the educational matrix which has been designed by the Kalsbeek College was (i.e. of the setting in which the KILM operates). In-depth open-ended discussions and interviews with the school leadership and staff will be held, in order to gain a clear understanding of the objectives of the matrix, and how it is expected to work in practice.

Secondly, a careful review of the literature regarding the role which the school library and information centre could play within the educational matrix will be made. An attempt to design a specific sub-matrix for use in the SLIC will then be made; this design would be presented to the school leadership and staff, for discussion and comments.

Thirdly, an attempt will be made to implement the sub-matrix, step-by-step, on an interdisciplinary level throughout the entire school. The aim is that all pupils (not a selected group) should benefit from the use of the sub-matrix. Direct observation methods will be used (Patton, 1987, p. 7) to evaluate the sub-matrix. Programme records will be kept.

During its application, the sub-matrix will be adjusted from time to time, to solve any problems which may arise and to improve its effectiveness. At certain stages, specific questionnaires and interviews will be used to evaluate and adjust the sub-matrix (Patton, 1987, p. 7), (Punch, 2009, p. 62, and p. 144). During the whole period, its use will be discussed with pupils, staff and school leadership, in order to gain an accurate view of the success and suitability of the sub-matrix. Minutes of meetings and records of interviews will be kept.

A Transaction Model (House, 1978, p. 5) will be used during regular evaluations of the sub-matrix and its application within the educational matrix. Patton (1980, pp. 54-55) describes a Transaction Model as 'understanding which emerges most meaningfully from an inductive analysis to open-ended, detail descriptive and quote data gathered through direct contact with a programme and its participants'. According to Patton (1987, p. 5 and 1980, p. 54-55) the evaluation of the sub-matrix should include:

- A detailed description of the programme implementation;
- An analysis of the programme processes;
- A description of the participants in the programme;
- A description of how the programme has affected the participants.

- An analysis of the programme's strengths and weaknesses, as reported by the people who have been interviewed (pupils, staff and school leadership).

Research Format : Dutch national level Exploratory research, in the form of a review of the literature will be carried out at Dutch national level. The results will be described and interpreted. Mixed research methods (quantitative research with some open questions and qualitative research) will be used to collect data, after the results of earlier questionnaires which were completed in 1995 and 2001 have been reviewed. As mentioned above, the application of the KILM at the Kalsbeek College reveals certain strengths and weaknesses of the sub-matrix. A new questionnaire which will clarify these aspects at Dutch national level, will be designed. It will ask questions which are related to the strengths and weaknesses of the KILM which become apparent. This data will be analysed and interpreted.

Where relevant, other open-ended questionnaires, surveys and communications, field trips to other SLICs in the Netherlands, and discussions with teachers, school leaders and school librarians (qualitative research methods) will be used to gather further data about certain aspects of the research which are still unclear after the initial data has been interpreted. School leaders and school librarians will be specifically asked to describe their vision concerning the introduction of information literacy practices into secondary schools.

Conclusions will be validated using expert interviews, observations of teachers and pupils, and observations during field trips. Evaluation will take place using a Transaction Model, as described on page 120 above and by Paton (1980, p. 54).

Research Format : European level Exploratory research includes a review of the literature at a European level. The results will be described and interpreted. Initially, it was expected that quantitative research methods could be effectively employed in order to collect the necessary data. A questionnaire was designed and sent out, however the quality of the data which was received was disappointing (as described in Chapter 22. page 178). Four additional (short) surveys were then designed and carried out. In total, five questionnaires/surveys were sent out between April 2004 and 2007, as described in Chapter 22, pages 177 - 186).

Paradigmatic evaluation model Since the methods described above did not present a clear picture of the situation in school libraries throughout Europe, it was therefore not possible to accurately answer the research questions at European level. A decision was made to collect additional data using a paradigmatic evaluation model.

This model would use mixed research methods (quantitative and qualitative paradigmatic evaluation methods - Patton, 2008, p. 425) applying the parameters which determine the successful implementation of the SLIC at the Kalsbeek College as a standard. The expectation is that this model will allow the researcher to make comparisons which would help to answer the research questions correctly.

There are many different parameters which determine the implementation and use of a school library and information centre (SLIC). Information will be sought in the following areas:

1. The population of the country.
2. The GNI (Gross National Income) per capita in each country. .
3. The amount of money spent on education.
4. A short description of the school system (in so far as it is relative to this study) – in primary and secondary schools.
5. Factors which are an indication of academic achievement, including international test results. These factors were limited to those which may be influenced by the school library and information centre (specifically reading, comprehension, and literacy.).
6. The simple description of the present (physical) ICT situation with regard to ICT within the schools (hardware and software), including ICT in the school library and information centre.
7. Information about the introduction of ICT into schools in each country, including the role played by the school library and information centre during this process. Information about a national ICT policy.
8. Media literacy and information literacy objectives per country and the role played by the school library and information centre in reaching these objectives.
9. Specific information about libraries and school libraries and information centres, at national and individual level.
10. Specific information about the school librarian and information specialist, including his or her role within the school, qualifications, job description etc.
11. Participation, per country, in (earlier) library surveys, including surveys of school libraries.

A table (Table 10, page 188) will be designed and completed for each of the 61 individual countries in this survey. This completed table will appear at the end of each individual country report. Combined tables of these data appear in Chapter 22, Tables 11 to 26. Using this model, both traditional methods and CMC (described on page

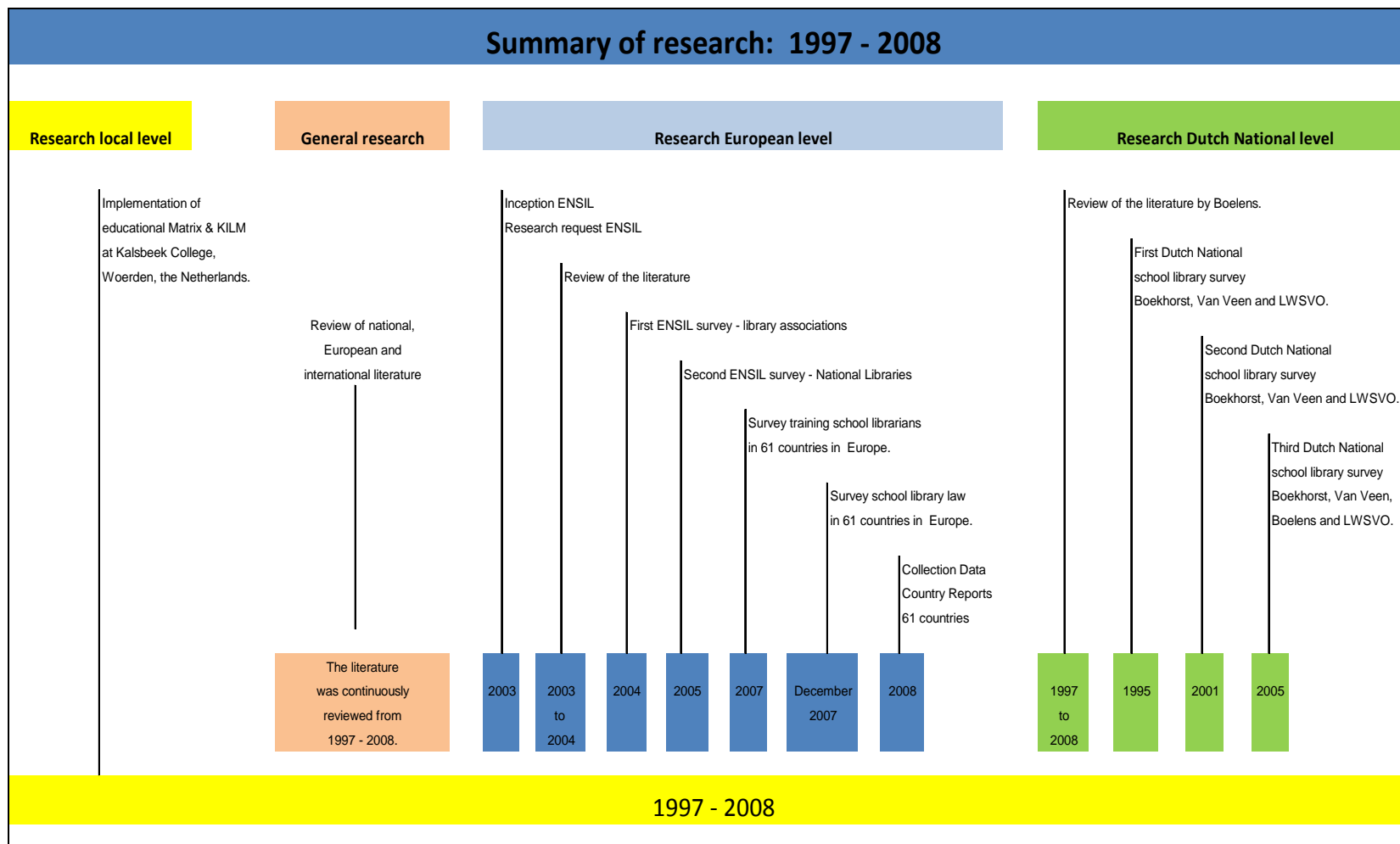
119) are used to collect data. Conclusions will be drawn from this data. The results of a paradigmatic model using mixed methodological methods are considered by Patton (2008, p. 439-444) to be both reasonable and empirical. The conclusions to this section of the research will be validated by means of expert interviews (face-to-face and also using CMC) and by observations and discussions during field trips. A final evaluation of the research at this level is then take place.

Evaluation at all three levels Figure 7, page 124 summarizes the research actions which will take place at all three levels from 1997-2008. Patton (2008, p. 5) describes the broader perspective of evaluation, using information and knowledge. He discusses the challenge of evaluation, and asks whether or not this study helps to provide insight for others, so that they can make decisions (p. 7). The evaluation carried out for the entire study, at all three levels, uses formative evaluation methods, which are described as 'a type of evaluation which has the purpose of improving programmes'.

'While formative evaluations can make use of both quantitative and qualitative data, it can be particularly useful to collect detailed, descriptive information about programmes when the purpose of the evaluation is to compare the programme operation and procedures' (Patton, 1980, p. 71).

At the end of the evaluation of the entire study (at all three levels), conclusions will be drawn and recommendations will be made.

Figure 7



Part 3 – Research at local, Dutch national and European level

Chapter 20 : Research at local level : Kalsbeek College, Woerden, the Netherlands

During 1997 – 2008, a new learning environment has been created in the school library and information centre (SLIC) at the Kalsbeek College. In 1997 the directors of the school instructed the writer to study and examine the situation which existed within the SLIC at the school, and to implement the changes which would empower the SLIC to play an effective role in the educational process in the 21st century. Chapter 20 describes the way in which the school leadership of the Kalsbeek College, Schilderspark Location, approached the introduction of educational reforms, ICT and educational technology and new forms of learning into the school environment.

In this chapter, some translations of information from Dutch to English were essential. The Research Degree Regulations published by Middlesex University do not call for an official translation of foreign language documents which have been used in Ph.D. dissertations. Also, due to the intervention of the research department of British Library, Dr. Catherine Walter, university lecturer in applied linguistics at the University of Oxford, Higher Education Academy National Teaching Fellow, was consulted about the reliability and acceptability of translations which have been used in this dissertation and made the following a statement: 'it seems unreasonable to ask for certified translations, as the researcher has indicated the translators' and back-translators' language competences. Dr. Walter verifies this statement by referring to the publication of Berry, Poortinga, Segall, and Dasen (1992), on cross cultural research.

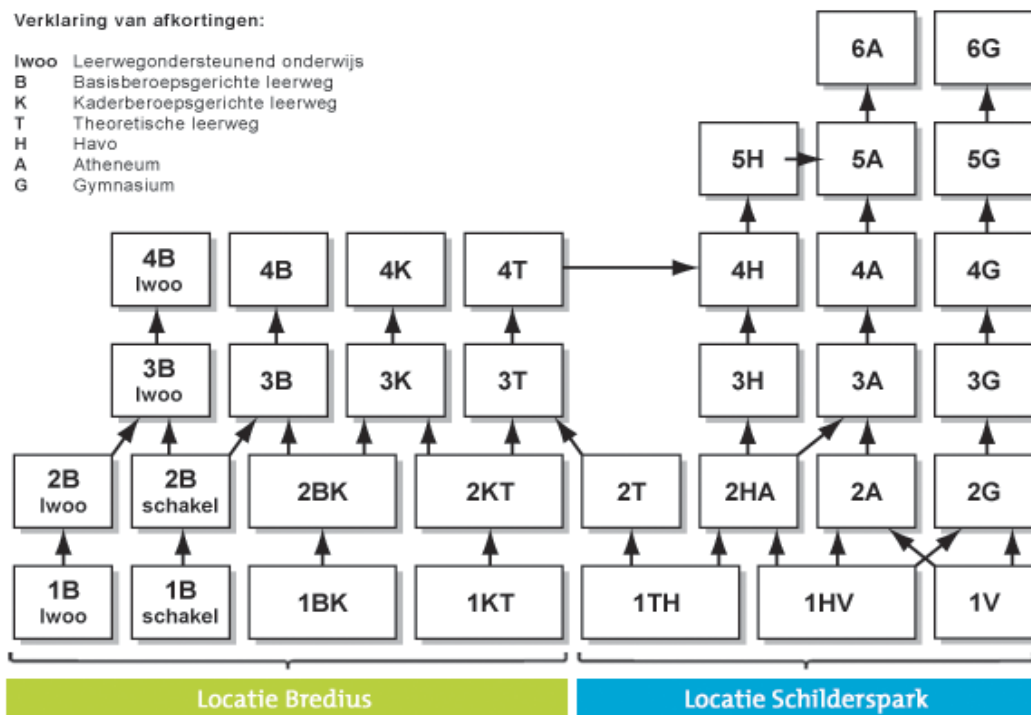
Setting for the research The school policy statement describes the school as 'a traditional school on the move' (Schouwenaar and Koebrugge, 2006). It is a large secondary (comprehensive) school, with about 2,600 pupils aged from 11 to 18 years, at all levels of the academic scale. It is a normal, ordinary Dutch school with Protestant affiliations and is funded by the Dutch government. Pupils who attend the school live in ± 19 different communities, which are located in a radius of approximately 25 kilometres around Woerden, including some traditional, rather conservative farming communities. Figure 8 and Figure 9 (below) give the reader some insight into the structure of the Kalsbeek College.

An explanation for the terms and abbreviations used in Figures 8, 9 and 10 is as follows:

Peuterspeelzaal:	Pre-school kindergarten or crèche.
Basisschool:	Primary school.
VMBO (B or T), HAVO (H), VWO (A) and Gymnasium (G):	Different sectors and academic levels within Dutch secondary schools. At the beginning of secondary school, each sector has a one year 'bridge' period, which is intended to help pupils become used to life in secondary school.
HBO and WO	Tertiary education at Bachelor's and Master's level.
Arbeidsmarkt:	Labour market.
Leerplicht:	Compulsory education.

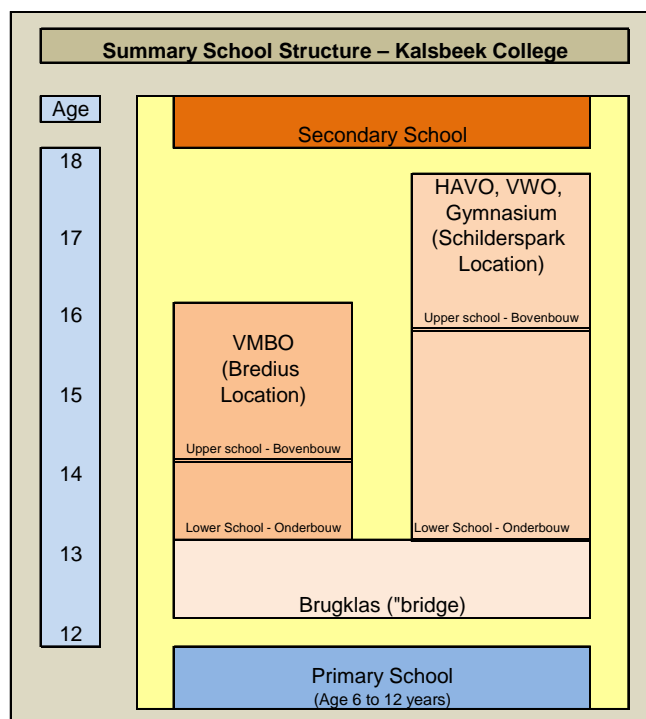
Figure 8

Secondary School Structure : Kalsbeek College



The Kalsbeek College has two locations : Bredius and Schilderspark.

Figure 9



Historical background to the educational matrix In January 2009, the Kalsbeek College has two locations : Schilderspark, with a total of \pm 1,600 pupils (at VMBO-T (class 1 and 2), HAVO, VWO and Gymnasium) and Bredius, with a total of 1,000 pupils (VMBO)³¹. There are approximately 250 teachers, who teach at one or both locations. Many of these teachers are female and work part-time³².

Below is a description of the historical background, which has made the introduction of an educational matrix throughout the Schilderspark location of the Kalsbeek College, for all subjects, and the sub-matrix known as the KILM (Kalsbeek Information Literacy Matrix) possible. The history of the Kalsbeek College is described in a publication edited by Andel (1987) who states that the present school evolved over a period of 70 years. In 1969 the Kalsbeek College became a large comprehensive secondary school and entered a period of change. It became imperative to reorganise the way in which the school was run. The Board of Governors (the Protestant Association of Education in Woerden) appointed a new director who was instructed to manage and organise the school in a more business-like manner. At that time, meetings for team leaders and open staff meetings which had previously been in existence were abolished, however, during a two-year period, it became clear that

³¹ As explained on page 126.

³² See Chapter 10, page 73.

there was a lack of communication between the central directors and the rest of the school.

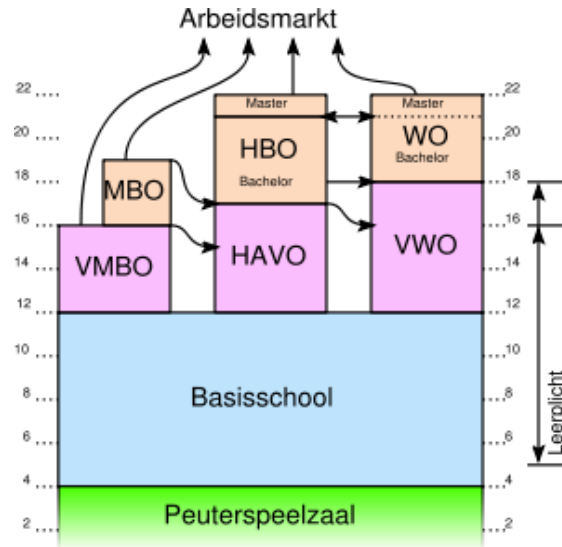
When the Kalsbeek College became a comprehensive school, it became a much more complex place to run, for example: there were a lot more departments or sections, teachers, pupils and other staff. Political and social aspects became important, such as the importance of ‘democracy’ in the workplace. Employees expected to ‘have a say’ and to become involved in the running of the school. The Dutch government has attempted to steer various processes in desired directions, including the decentralisation of the educational process and more autonomy for each school (Schouwenaar, 1999). Each individual school is now required to write an organisational model for the running of the school, which is known as the Schoolwerkplan (School Working Plan)³³, and is permitted to choose its own model.

Democracy within the school C. Nieuwland, director/rector of the school from 1974 – 1984, was responsible for the management structure within the school. Due to a dramatic increase in the size of the school, described above, there was a need for many more teachers. A whole new generation of young teachers, (recent graduates from Dutch universities, who were familiar with the democratisation of the universities) were appointed to the teaching staff at the Kalsbeek College. They wanted (and expected) to become involved and to participate in the running of the school. Andel (1987) verifies that these expectations were quickly confirmed by changes in Dutch educational legislation, which not only ratified these expectations but also defined the core or main structure of the school and divided it into different educational departments or sectors, as described above in Figures 8 and 9 above. Pupils are allocated into different departments or sectors, according to their (academic) abilities (see Figure 10, page 129). The terms in Figure 10 are explained on page 126.

³³ See Chapter 21, page 130.

Figure 10

Structure of education in the Netherlands



Reference: Ministerie van Onderwijs, Cultuur en Wetenschap (Ministry of Education, Science and Culture, 2007).

Giesbers (1975) defines the most important factors in the introduction of democracy within the school as: communication, consultation and co-operation within the school. In 1998, regular 6-weekly meetings of team leaders (the Kernvergadering) were re-introduced (reinstated). During these meetings, matters of educational or organisational importance within the school are discussed; ideas and information are exchanged. The meeting of team leaders functions as an informal parliament in the educational organisation of the school. The directors and deputy-directors are included in the team leader group and have an official status as representatives of the (teaching) staff. Each faculty group is also represented at the meeting by one or two appointed representative (depending on the number of teachers in the faculty). The school librarian and information specialist is also a member of this team. Each member of the team leaders' group has a vote, and each member can prepare an item for discussion (agenda topic) for the meeting. Since their re-introduction, these meetings of team leaders have played a very important part in the running of the school and the co-operation and communication between all parties within the school. It should be noted, however, that the meeting of team leaders cannot formally make a ruling with regard to school policy and that the outcome of the discussions and the conclusions which are

reached are not binding. They are of a supportive nature, and usually provide guidelines for school policy (which is ultimately determined by the directors of the school).

The APV (Algemeen Personeelsvergadering – Open Staff Meeting) has also been reinstated and regular meetings are held. All staff members are required to be present at these meetings, which have an informative role. While some important matters can be discussed during the APV, it does not play a decision making role within the school.

The school also has a Participation Council (medezeggenschapsraad), which is compulsory under Dutch law – pupils, staff members and parents are elected to this council, via a democratic process. The running of the school, the educational process and the organisation of the school are discussed by this council and votes are taken on various issues. Once again, the outcome of the discussions and the conclusions which are reached are of a supportive nature (not binding).

Strategy document The school leadership of the Schilderspark location of the Kalsbeek College now works with a strategy document (Schouwenaar and Koebrugge, 2006,) which establishes the vision and objectives of the school, and describes the means which have been provided to achieve these goals. The introduction (p. 1) to the strategy document describes the situation at the school at the end of 2006, as follows:

‘We work together in a traditional school which is adapting to new trends and developments. During the past 4 years, it has been possible, at an elementary level, to improve the organisation of the educational process at faculty level. Beside this, a start has been made for more co-operation, inter-connection and fine tuning between different subject groups. And what is perhaps the most important factor: people are not afraid to discuss how this new form of education is progressing - on a daily basis or at regular meetings.’ Translated into English by the researcher and checked by the authors.

The strategy document is structured around five related subjects:

Education: the educational objectives, the educational programme, pedagogical developments. This section of the document also gives specific details of the staff member(s) who are responsible for specific tasks. It includes details which are relevant to the SLIC.

Staff : instruction for staff, development, advice and assistance, etc.

Pupils and parents : communication, participation, etc.

Organisation : management strategies, communication and participation, maintenance.

The climate within the school : the school’s identity, openness, discipline and structure, pedagogical expertise.

The educational matrix By using a structured organisational method which is referred to as the matrix, (Schouwenaar and Koebrugge, 2006), the school has started to solve some educational problems successfully. In an E-mail dated 10 February 2010, Schouwenaar describes the major objectives of the development of the educational matrix as being ‘to stimulate educational developments, using a systematic model which would increase the co-operation within faculty groups, between different faculty groups and between school years, and also, if possible, to illustrate this process’. The school leadership has tried to implement the matrix, using a democratic process. It has been constantly discussed and adjusted, during regular meetings of team leaders of the Kalsbeek College (see page 129).

A short description of the educational matrix, (Schouwenaar and Koebrugge, 2006), is as follows. Specific staff members have been appointed to co-ordinate and supervise the co-operation described below.

Vertical – co-operation between all subject groups within the same school year. This requires consistent supervision, adaptation and adjustment.

Horizontal – alignment of the educational programme and connections between the different subject groups, e.g. co-ordination of the teaching programme and the content; co-ordination of skills which need to be learned – who teaches which skills (especially general skills, which are used by pupils for different subjects); co-operation between two or more subject groups, during the course of the academic year and during special project weeks.

Comments: Some subject groups found this concept difficult, especially the modern languages faculty groups. Many discussions have taken place in order to reach solutions to problems. An inventory must be made of the expectations for the school year: i.e. what are the proposed activities of each faculty group, per class, for the academic year. It then becomes possible to combine certain projects (in an interdisciplinary way, across subject areas) and to exploit synergies. The teaching of ICT technical skills, information, media and new literacy skills and the use of the ELO (Electronic Learning Environment) - to both teachers and pupils - form an essential part of the matrix and the KILM sub-matrix.

The use of ICT is not a goal in itself, but contributes towards and benefits the systematic organisation, in all different aspects of the educational process. Improvement in the quality of learning and the learning process is the optimal goal. Primarily, attention is paid to the use of ICT as an educational tool - information skills such as searching for, finding, reflecting on the information which has been found and

using it for the acquisition of knowledge are very important. ICT is also used in the management of the school itself (administrative and communicative functions).

The school's policy statement, the school website and its prospectus state that the Kalsbeek College places emphasis on the importance on instruction in information, media and new literacy skills. In order to carry out this policy, a special committee, called the Media Education committee, has been formed to facilitate the educational use of ICT throughout the school, including the emphasis on instruction in information, media and new literacy skills. Committee members are: a member of the central Board of Directors, two directors from the Schilderspark location, a co-ordinator from the teaching staff plus one additional teacher, the school ICT co-ordinator (who is also a teacher) and the school librarian and information specialist. This Committee discusses recent developments concerned with the implementation of ICT as an educational tool and educational technology throughout the school, and how it can be applied in the acquisition of 21st century learning skills, including critical thinking and research skills. It also makes decisions relevant to the interdisciplinary coordination and implementation of the KILM (page 138) at all school levels. Work carried out by the committee is often presented to the regular meetings of team leaders for discussions .

Needless to say, because of the continuing advances which are taking place within the information society, the school's published strategy / education policy and the educational matrix are continuously evolving. This has led to the need for and development of a sub-matrix, known as the KILM (Kalsbeek Information Literacy Matrix), for the teaching of information literacy to both teachers and pupils.

[Historical background : school library and information centre \(SLIC\)](#) In 1969, when the Kalsbeek College became a comprehensive school, the school library played a minor role within the institution. It offered basic, traditional library services to the school community. Although it received funding from the school, it did not play a formal role in the educational process or in the school policy. It was not run by a professional librarian, but was an 'extra duty' for administrative staff members.

During the eighties, teachers and pupils made increasing use of the school library facilities. In 1987 a professional librarian was appointed and the library was moved to a larger location which was the size of a normal classroom. It contained a collection of books, magazine and documentary information; there were also limited facilities where pupils could work and do their homework. Up until 1990, the fact that the school library should form part of the educational policy of the school was seldom discussed. This changed in 1990 when new national legislation described a new

educational policy, relevant to the introduction of educational reforms and new forms of learning for all secondary schools in the Netherlands (Veen, 2006).

The role of the school library changed. Although it retained the traditional quality and facilities of the traditional school library, it also became a school library and information centre (SLIC), a learning environment within the school where pupils were encouraged to study independently and to become familiar with the use of ICT as a learning tool. Nevertheless, within general national school policy, the SLIC was still of marginal importance.

In 2001, the introduction of the Second Stage (described on page 147) made a clear educational policy for the entire school essential (Boekhorst and Veen, 1996a). Its introduction was a very important factor in changes in school policy and in the role which the SLIC played within the school. The Second Stage placed a great deal of importance on individual, independent and co-operative learning. Pupils were encouraged to take part in projects and to write (simple research) papers. Teachers needed to know what kind of facilities were available in the SLIC, and how they could be used in this new educational process. In hindsight, it has become apparent that school directors and teachers were ignorant of the different facilities and services which the SLIC and the qualified school librarian could deliver to the school. While they were aware of the traditional use of the school library in promoting literacy and reading, the link between the new forms of learning and the importance of the SLIC in these new educational concepts was unclear. Now, in 2009, it is clear that the SLIC plays an integral part in the educational process.

[A new school library and information centre \(SLIC\)](#) After her appointment at the Kalsbeek College, the researcher carefully reviewed the applicable (international) literature, studied the situation in the existing school library and then attempted to design a qualitative research model for the research, in accordance with the initial instructions from the school leadership. IFLA/UNESCO (1999) and IFLA/UNESCO (2002) were both used as basic guidelines. Over a period of more than ten years, regular bi-weekly meetings have been held with the director who is responsible for the SLIC, Dr. Jaco Schouwenaar, to discuss the research model and its application.

In 2002, the Board of Governors of the Kalsbeek College decided to modernise and extend the school building at the Schilderspark location. This extension to the school should contain a new school library and information centre (SLIC), which would be designed by an architect and an interior designer. This large new SLIC (approx. 400 square metres) would retain the old traditional values of school library work, would

house the school's traditional and digital collections and would provide study desks and comfortable places where pupils could read. It would also provide facilities for new kinds of learning, such as computers and educational technology. Adequate facilities for the library staff would also be provided.

The school librarian was instructed to write a 'List of requirements' for this new facility. This list was vetted by an external school library consultant. A document which describes the objectives, aims and functions of the SLIC was published in June, 2002 (Kalsbeek College, 2002). Problems (both physical and organisational) which had been encountered in the old SLIC were carefully studied. Positive and negative experiences of clients (teachers and pupils) who used the old facility were reviewed. The end result is a friendly, colourful SLIC with good, modern facilities. Pupils enjoy using the SLIC, which has the following facilities:

1. An area of $\pm 400^2$ meters (approximately 8 classrooms), with ± 50 (new) PC's, ± 40 study desks, serving approximately 1,600 pupils and 150 teachers and other staff at the Schilderspark location.
2. Opening hours of the SLIC: from 8.30 am to 4.30 pm. The digital collection and the ELO is accessible to the school community from inside and outside the school, at any time of day or night.
3. An up-to-date traditional collection of $\pm 16,000$ books (fiction and non-fiction), documents, CD's, CD-ROM's, DVD's, Audio books, magazines etc.. The traditional fiction collection, in a total of 5 languages, is intended to stimulate pupils' multi-lingual reading and literacy skills.
4. A web-based school library catalogue programme (OPAC) which uses advanced ICT and gives access to the collection (traditional and digital) from inside and outside the school. It is also used for library administration.
5. A web-based network, with access to Internet, E-mail, discussions groups and an ELO (Electronic Learning Environment) etc., available to the school community at any time during day or night.
6. Access to extensive educational software.
7. A special library facility for teachers and staff, which contains up-to-date material, in traditional and digital form, about pedagogy and new forms of learning.
8. A display area for special themes, projects, news items etc..
9. An extensive digital collection (including databases, software etc.) in a number of different languages.

10. A special colourful, friendly area for lower school pupils, where they can receive special attention from the library staff.
11. Library desk facilities and an office area for library staff.

In the new SLIC, special emphasis is still placed on reading pleasure (in a number of languages, especially Dutch and English). There is a large traditional collection of all kinds of books, especially teenage literature. The SLIC has two areas where pupils from the upper school can work, either together or on their own, on co-operative projects or on their homework. These areas are especially equipped to encourage new forms of learning.

As mentioned above, the new SLIC was created to fulfil the need for a traditional library and also to provide extensive facilities for new forms of learning and the use of ICT as an educational tool and educational technology within the school. This new learning environment optimises opportunities for teachers and pupils who are working on project-based teaching tasks and taking part in other new forms of learning. It was also designed to facilitate the instruction in information and media literacy (the use of the KILM), for pupils and teachers. This instruction is given by the school librarian and information specialist.

[Introduction of the Kalsbeek Information Literacy Matrix \(KILM\) into the school library and information centre \(SLIC\)](#) By using the educational matrix and the KILM sub-matrix, the school has started to meet the educational challenges of the 21st century. The KILM describes the role of the SLIC in the educational process within the school. It takes advantage of the expertise of the qualified school library staff. Thanks to the KILM, instruction in information and media literacy, for teachers and pupils, is regularly scheduled and integrated into the school curriculum.

[Description of the KILM](#) The KILM provides interdisciplinary instruction for all pupils throughout the entire school. At the beginning of each school year, each faculty group prepares a plan which shows their objectives, per class, per year, and per department, in accordance with the structure of the educational matrix. This is a plan of the faculty's activities for the entire school year. Their representative presents this plan to one of the co-ordinators (usually senior teachers) who have been appointed throughout the school. There are in total nine co-ordinators: five for the upper school and four co-ordinators in the lower school. The KILM is then co-ordinated and applied

at specific points within the educational matrix. It provides critical intervention at specific points within the school curriculum during the learning process.

New inquiry based approaches and learning styles (Kuhlthau, Caspari and Maniotes, 2007), (Barell, 2006) are embedded within the KILM curriculum, using research models to promote cognitive thinking. The KILM has been developed using both traditional and new concepts of learning, to teach pupils the skills involved in research, analysis and evaluation of traditional and digital forms of information, critical thinking, writing and the presentation of a multidisciplinary paper or project. All teachers and pupils throughout the school receive interdisciplinary instruction in information, media and new literacies and in new forms of learning. This instruction is given by the school librarian and information specialist and is interdisciplinary. As a result, instruction in important 21st century learning skills is no longer dependent upon the skills (or lack of skills) of individual teachers. KILM instruction is obligatory (see page 138).

Because of its construction, the implementation of the KILM is an on-going process which constantly changes, however it can be described as follows:

Lower school: The KILM gives basic instruction in interdisciplinary information literacy skills. Basic information literacy guidelines are always emphasised and reiterated each time pupils receive additional instruction. Basic instructions take the following form:

First year, for all pupils in all classes: There are three specific instructions. The first is an introduction to the SLIC and its facilities; the second shows pupils how to find reliable information (using all kinds traditional and digital resources which are located inside or outside the school - not only written information, but also pictures, films, media etc.) for a paper or project (including the use of), how to sort this information, decide which information to use, decide how to present a paper, use the information and how to write a bibliography or references. The third instruction is concerned with reading and literature. Pupils learn how to select books (usually novels) in different languages, how to find reliable information about a writer, reviews of specific books, book extracts and summaries. Similar strategies mentioned in the second instruction are used, but the kind of information which is sought and located is very different and requires different strategies. These instructions are a form of guided inquiry (or specific interdisciplinary intervention), as described by Kuhlthau, Caspari and Maniotes (2007).

Second year. Special instruction for pupils in the Gymnasium (top academic level), in order to teach these pupils additional research skills, and also to stimulate their reading pleasure. Other second year pupils receive instruction in information and media literacy skills during special projects.

Third year pupils: At the moment there is no basic instruction for third year pupils. Although the need for instruction is recognised, it has not been possible to plan it into the KILM sub-matrix, for reasons which are explained in the conclusions to this chapter. However, these pupils do receive ad hoc instruction in specific information and media literacy skills during special projects.

During each instruction, whether it is a basic instruction or an additional instruction, pupils receive a written summary (a guide in the form of a bookmark) which guides them through their research activities. These guides are stored in the ELO and can be accessed digitally by pupils and teachers.

Upper school: Instructions for pupils in the upper school take the following form:

Fourth year. There are two separate instructions for all pupils. The first is concerned with specific information literacy skills related to literature, in Dutch and other languages. The second teaches pupils very specific information and media literacy skills related to the search for information for a history or social studies project.

Fifth year, for examination candidates (HAVO) : Specific information literacy skills, related to the information search for a final examination research paper. Individual pupils, or small groups of pupils, select a specific topic which they investigate (carry out research) and then describe in a paper. VWO pupils receive instruction in specific information and media literacy skills during special projects.

Sixth year, for examination candidates (VWO) : Specific information literacy skills, related to the information search for a final examination paper – as explained above (for HAVO pupils).

Final examination candidates (individual pupils who may require extra help or assistance in their information search) can make an appointment with the school librarian and information specialist (Boelens, 2006b). During these individual instructions, the school librarian and information specialist is constantly amazed at the naive way in which (top level) pupils who are about 17 years of age and older approach the information search and use (biased forms of) information. An interesting further study could be carried out about the information usage and attitudes of pupils in this age group.

KILM instruction for special projects and Project Weeks During special projects and Project Weeks, the KILM also provides additional, specific instruction for upper and lower school pupils. The educational matrix provides information, per school year (or class), about projects will take place, which classes are involved, and which faculty groups will co-operate with each other during these projects. All faculty groups are required to participate in Project Weeks (Schouwenaar and Koebrugge, 2006).

The SLIC renders assistance to all projects, and implements the KILM by providing extra ad hoc instruction in information and media literacy – a form of guided inquiry – whenever possible. If necessary, it also provides additional (temporary) resources in traditional and digital form.

Reactions of pupils Many of the pupils, especially pupils in the upper school, enjoy the KILM instruction. They find it interesting and useful; interviews also verify that they are aware of its purpose. Some of them have asked for more instruction. This request, which comes from the pupils themselves, is very heartening.

Important decisions and intervention by the Media Education Committee in the application of the KILM After a KILM pilot project in 2005, the following decisions were made, as follows:

- A structure was approved for essential instructions, including information, media and new literacy skills, critical thinking and research skills, within the KILM.
- Participation in the KILM instructions (for both teachers and pupils) is compulsory. Failure to attend is reported to the school leadership.
- The consistency of information literacy instruction throughout the school is important – it should follow one line (from school year to school year, from class

to class and from discipline to discipline) and should not vary, depending on the skills, ICT competencies or opinions of individual teachers.

- Ad hoc, additional information literacy instruction for specific projects was also recognized and approved.
- During information literacy instruction, pupils are instructed in the ethical use of information and are told about plagiarism.
- The committee also approved the use of a set of guidelines, to be used throughout the school, which must be applied when pupils write a research paper or submit a project, for example layout, citing references (bibliography), etc. This set of standards or guidelines, which is updated as required, is used throughout the entire school and is available to teachers and pupils through the ELO (Kalsbeek, 2004).

[A review of the information and media literacy skills of the teaching staff](#) During an initial investigation into the information literacy skills of teachers, the researcher co-operated with a doctoral research student at the University of Twente in the preparation and use of an information literacy test in the Dutch language for teachers and staff. The main purpose of the test was to find out more about the information literacy skill levels of teachers and to provide support when necessary. It was also an attempt to create an awareness of the complexity of these skills. All members of the teaching staff were given access to the compulsory test through the ELO and asked to complete it by a given date. Very few teachers completed the test for numerous reasons, the most frequent being that they did not have time during the school day to complete the test. This 35 minute test was available through the ELO, it could have been completed outside school hours, however informal interviews confirmed that teachers knew that because the test was carried out using the ELO, their score could be recorded. They were frightened of a low score. Some teachers who were actually completed the test asked if they could do it again, in order to improve their score. Also, there was no supervision while the test was taking place. Some teachers asked colleagues for help in completing the test (in order to score higher). Unfortunately it became clear that teachers did not understand the main purpose of the test.

In retrospect, it would seem that the school leadership needs to have a better understanding of the importance of information, media and new literacy skills in 21st century education. Perhaps these staff members should also have been tested in some way, once more in an attempt to draw their attention to the complexity of the skills which are involved. This attempt to gauge the ICT and information literacy skills

of school staff is complex and needs more attention, possibly in the form of a future study.

KILM instruction for the teaching staff Each member of the teaching staff is required to attend a course in information, media and new literacy skills during special study afternoons, which are part of the roster of the teaching staff. These instructions are compulsory. Teachers from different faculty groups are combined (groups of ± 20 teachers) and receive basic instruction in information and media literacy skills, including useful tips in new forms of information search, often specifically related to the teachers' subject area. This instruction is given by the school librarian and information specialist and forms a clear basis for co-operation between the SLIC and other members of the teaching staff. During these instructions, it has become very clear that many teachers do not have adequate technical ICT or information literacy skills. Similar observations have been made by Hansson (2006) and Probert (2009). Experience at the Kalsbeek College showed that approximately 40% of teachers have very limited ICT technical skills. During KILM instructions, time needed to be spent on basic technical ICT procedures before the actual information literacy instruction could begin.

Diaries record further co-operation between the school library and information specialist and the teaching staff. Appointments are often made to discuss information problems or to ask for assistance in the application of ICT, educational technology, new forms of learning and 21st learning skills in lessons.

Successes and failures of the KILM which have become clear during its application which need to be discussed and/or resolved are recorded below.

Vision versus traditional educational attitudes The initial 'educational vision' of the school leadership in the design and application of the educational matrix and the KILM is extremely important. However, even though a democratic decision was made to use the matrix and sub-matrix throughout the school, some staff members found it very difficult to 'let go' of their traditional educational viewpoints and attitudes, even though training was provided to help them understand why the educational matrix and the sub-matrix were being introduced. There was a certain 'resistance to change'. It was essential that both the educational matrix and the sub-matrix were introduced throughout the school as a whole, so that all pupils would benefit from them. The participation of all members of the teaching and library staff was obligatory.

Autonomy of the teacher Looking back, it could be said that there was insufficient room for the traditional ‘autonomy’ of the teacher³⁴. Some teachers found it difficult to let go of some of their autonomy and preferred use their established teaching routine. They were not open to changes. This problem has also been described by Cuban (2003).

Roster problems The teaching of interdisciplinary information literacy skills is carried out carried out by the school librarian and information specialist (who has a teaching accreditation), however these lessons are not part of the scheduled roster or curriculum for pupils. The fact that these lessons are not part of the normal roster, makes it possible for some pupils and teachers to ‘avoid’ coming to the instructions. Teaching hours are ‘donated’ by different faculty groups. Even though instruction for teachers has taken place during special, compulsory study afternoons which are part of the roster of the teaching staff, some failed to attend. These problems still need to be solved.

SLIC staffing and workload: When the matrix was introduced, there was only one school librarian and information specialist who could give KILM instruction. KILM instructions took up about 30% of this person’s working week and caused a very substantial increase in her workload. In addition, extra preparatory work for the Project Weeks, increased the normal workload of the SLIC staff and caused major peaks in the SLIC workload. The objective during the Project Week was to allow as many pupils as possible to use the SLIC’s facilities, but this took very careful planning. Although the Kalsbeek College is very well equipped with ICT facilities (approximately 1 PC to every 4 or 5 pupils), this was insufficient during the Project Weeks. During the project week, access to a well-staffed SLIC from 8.30 am to 4.30 pm was essential. Not enough trained library staff was available during the peak periods.

Report cards - marks for ICT and information skills: While lessons in the technical application of ICT receive an official mark, no official assessment of media and information literacy skills is recorded and as a result, some students did not always take the instruction seriously.

SLIC Usage: According to the statistics generated by the school library catalogue (OPAC), which not only records the library loan administration but also provides information about the number of visitors using the SLIC facilities, the new SLIC is already too small. Also, some specific parts of the collection need very regular refurbishment because of constant use.

³⁴ See Chapter 10, page 68.

ICT problems: The Kalsbeek College is a large school with ICT and educational technology facilities which continue to increase. These extensive ICT facilities require investment in money, maintenance and operation. Extra staff (permanent and also in an advisory capacity) has been hired to implement them. There is a specific need for a knowledgeable, highly trained systems manager, who is not only technically proficient, but also has some educational vision. The ICT requirements of the SLIC need to be discussed from both a technical and an educational standpoint. Differences of opinion between the systems manager and the school library staff have been recorded (Smeets, 2008). Even though outside experts (often ICT consultants with technical but no educational knowledge) have been hired to look at these problems, they have not been adequately solved. The solutions suggested in Figures 12, page 242 and 14, page 246 may help to resolve some of these problems.

Security, vandalism and filtering in the school network is a critical problem. Some pupils could be described as successful ‘hackers’, who can severely affect the network throughout the school. The systems manager needs to pay much attention to security measures. Filtering of unsuitable digital information is also a problem which needs to be discussed carefully at all levels (Figure 12b, page 244 and Figure 14, page 246).

School library software: In the Netherlands, one specific school library catalogue / software packet (OPAC) is used by nearly all secondary schools. The supplier has a monopoly. The deficiencies in this software (when compared to other school library software used outside the Netherlands) result in problems and frustrations. The OPAC should be more than an administrative tool; it should also have pedagogical aspects and advantages, should be web-based, allowing it to be accessible from inside and outside the school.

Assessment of the KILM There are no objective statistical (quantitative) measurements that make it possible to measure an increase in educational quality due to the implementation of the SLIC at the Kalsbeek College as a learning environment. However qualitative assessment is possible. There are many indicators that support the claim that educational quality has increased, such as the number of library loans, the quality of project reports, the number of visits including use of the ICT and other facilities, positive comments from both pupils and staff, the success of exhibits and other special activities, requests for assistance by pupils and teachers. Some of the indicators identified by Williams and Wavell (2001)³⁵, have also been used to monitor the SLIC, to assess its effectiveness, and to demonstrate an increase in the

³⁵ See Chapter 16, page 102.

educational quality and achievement of the pupils. Similar experiences are revealed in a study which was carried out by Todd, Kuhlthau and OELMA (2004). Teachers and pupils who were interviewed have a positive attitude towards the SLIC and enjoy using this learning environment.

It is also interesting to note that the borrowing of books and materials increased, for example, by $\pm 17\%$ during the 2006 calendar year (verified by statistics which are generated by the school library programme (OPAC)). The facilities such as study desks and PC's in the SLIC are nearly always occupied, a fact which can also be verified by reliable statistics, and which show an increase of 33% over a three year period (2006 – 2008).

The writer is convinced that a specific assessment model for school libraries and information centres, at local, national and international level, should be the subject of a further study.

Critical success criteria Four critical success criteria became apparent during the implementation of the sub-matrix (KILM) at the Kalsbeek College:

Vision of the school leadership The up-to-date educational vision of the school leadership, together with its ability to co-ordinate skills and implement change management have been imperative during this process (Henri and Asselin (2005)). The need for a strong, well-educated and thoughtful school leadership is clear. The school clarified its (educational and other) goals and then worked towards their implementation. The changes which have taken place within the SLIC have been carried out in co-operation and consultation with the school leadership, teachers and other staff. The school leadership at the Kalsbeek College is aware of the way in which the SLIC can enhance the educational quality, learning outcomes and academic achievement within the school, and fully supports the work of the school librarian and information specialist.

Vision and quality of the SLIC staff Under the leadership of the school librarian and information specialist, the SLIC at the Kalsbeek College has played a pivotal role and has become an integral part in the educational reforms, the introduction of ICT and educational technology as educational tools, and the introduction of new forms of learning throughout the school as a whole. This study reveals that the professionalism and professional identity of this person, including her knowledge of the generic developments and drivers of change within the profession were an essential success factor. This person needs to be trained in two different processes – the educational process and the library process. He or she must not only be fully conversant with

pedagogy and new concepts of learning, but must also be aware of both traditional and new school library (library and information management) concepts and ideals.

The SLIC is in a constant state of transition, due to the continuous changes which are taking place in the information society. These changes require the school library and information specialist and other SLIC staff to take part in constant, continuous re-training, in order to keep up with new trends in both the information society and in education. These new skills need to be applied to a library in an educational (pedagogical) setting. The certified school librarian and information specialist acts as a coach, or expert, for other members of the school community. This person should be at the same level as the teaching staff, so that discussions can take place and decisions can be made as equals. Adequate qualified staffing of the SLIC is essential. In the Netherlands, it is extremely difficult to find quality certified personnel to carry out the work in the SLIC, for reasons which are explained in Chapter 21, page 169.

The way in which the SLIC presents itself to and co-operates with the rest of the school community and makes itself visible. The entire school community needs to be aware of the different facilities which are available in the SLIC and the different ways in which the SLIC and the school librarian and information specialist can be of value and assistance during the educational process.

The role of the school and the SLIC in the information society The entire school community should be aware of the important role which the SLIC plays in education in the school in the 21st century. This should be made clear by the school leadership.

[Answers to the research questions at this level](#)

- A direct link has been created between the educational matrix at the Kalsbeek College and the work of the school library and information centre (SLIC), using the sub-matrix known as the KILM (Kalsbeek Information Literacy Matrix), which was specifically designed for this purpose.
- Qualitative assessments reveal that the application of the sub-matrix has led to an increase in educational quality and academic achievement throughout the school (page 142).
- Successes and failures which are observed during the application of the sub-matrix are described on page 140. The application of the educational matrix throughout the entire school makes co-operation between all members of the school community essential and obligatory.

Final observations The application of the KILM sub-matrix is only part of the role of the SLIC at the Kalsbeek College. It has many roles within the school, as described in Figure 13, page 245, and makes use of two distinctly different processes - the library process and the educational process. The SLIC's function as a quality school library and learning environment is just as important as the application of the KILM.

The friendly atmosphere in the SLIC is also very important. Pupils who work together with each other in the SLIC learn important social skills. Some pupils, especially those in the upper school, enjoy being able to discuss their work with the school librarian and information specialist. They often 'drop in' to discuss some aspects of their work. Also, teachers often make an appointment with the school librarian and information specialist to discuss information and media problems and also the application of the SLIC in the teaching process.

Finally, the success of the SLIC mainly relies on optimal co-operation between the school leadership, teachers, ICT co-ordinator, systems manager and the school librarian and information specialist if the educational goals which have been described in the school's policy statement (Schouwenaar and Koebrugge, 2006) are to be realised. Figure 12 (page 242) provides a possible synopsis for the infrastructure which is necessary within the school in order to achieve optimal educational quality and academic achievement.

Chapter 21 : Research at Dutch national level

This Dutch national research will attempt to answer the research questions at Dutch national level which appear in Methodology. In Chapter 21, the terms 'school library' or 'school library and information centre' are used to describe the facility which is known in Dutch as the 'Mediatheek'. The school librarian and information specialist is known as the 'mediathecaris'.

Theory If (secondary) schools throughout the Netherlands are able to provide conditions similar to those which exist in the school library and information centre (SLIC) at the Kalsbeek College in Woerden, they should be able to implement the KILM (Kalsbeek Information Literacy Matrix), which would help to support the introduction of educational reforms, ICT as an educational tool, educational technology and new forms of learning throughout the schools. It would provide a framework for the teaching of 21st century learning skills to both teachers and pupils. The main goal is to improve the quality of learning throughout the school and to increase the academic achievement of pupils.

Introduction At the time when new forms of learning and ICT were being introduced into secondary schools, the Dutch government received advice (page 150) concerning the use of school libraries to facilitate new forms of learning (Dam, 1996). In general, schools did not follow this advice. There may have been a lack of understanding on the part of some school leaders about the advice which was given.

Chapter 7, page 47 reveals that a great deal of money has been spent on the introduction of ICT into schools (in a technical sense) in a number of countries in Europe, including the Netherlands. While some of this money has been spent on the application of ICT for school administration and management, other funds have been spent on ICT hardware and software as an educational tool, and educational technology for students and teachers. The rather simple, initial evidence shows that these high expenditures may not have necessarily resulted in an increase in academic achievement.

Each year, secondary schools in the Netherlands are required to draw up a strategy document known as the school working plan which should summarise the educational organisation and objectives of each school. It should contain an annual report, information about school staffing, an in-service training plan and information

about the SLIC and its objectives. Each individual school can choose its own model. This strategy document is regularly examined by the school inspector.

Earlier surveys conducted by other researchers In 1995 and 2001, mixed research methods were used by Boekhorst, Veen and the LWSVO (Dutch Working Group of School Librarians in Secondary Education) to carry out research on school libraries and information centres in the Netherlands. This research investigated the role which school libraries play in the introduction of information literacy skills into secondary education. It attempted to find out whether or not the use of the school library would play a vital role in becoming information literate. In 2006, the writer joined this research group, working together with Boekhorst and Veen.

The initial research in 1995 (Boekhorst and Veen, 1996a) tried to review the history of the school library in the educational system in the Netherlands and verified that different kinds of 'school libraries' have been present in the Netherlands for a number of years and that this traditional term was used to describe all these different kinds of facilities, in the form of a box of books in a classroom to a well-equipped facility. The research also revealed that the Netherlands does not have a strong school library tradition, especially in primary schools. This study started by describing educational reforms which took place in secondary schools the Netherlands in 1993. A new educational system for secondary education was introduced in two stages: firstly into Basic Secondary Education (Basisvorming) and secondly, during a Second Stage which was organized according to the concept of 'Home for Study' (Studiehuis). New forms of learning were introduced, emphasizing learning instead of teaching and encouraging students to take an active, independent approach to learning. The teacher's role shifted from being an instructor to that of a coach and facilitator. This concept also specified that the school library and information centre (SLIC) should play a central role in this new 'Home of Study'. It was described as being 'the heart of the home of study'.

Boekhorst, Koers and Kwast, 1999) describe developments in the area of information technology and conclude that since much more and more information has become available in more and different information sources (in printed or digital form) through various channels, it can therefore be concluded that users of information must have more knowledge and skills in order to be able to use this information in an adequate way. A brochure containing these theories was distributed to all secondary schools in the Netherlands (Boekhorst and Veen, 1996b).

The first school library survey (1995) From 1993 to 1996, a Steering Committee Profile Second Stage Secondary Education (Stuurgroep Profiel Tweede Fase Voortgezet Onderwijs) advised the Assistant Secretary of State for Education, Culture and Science on the reorganization of the Second Stage of educational reforms in secondary education. In order to assist schools in updating their school libraries and in preparing them for the tasks envisaged in the new educational structure, the Steering Committee initiated a survey into the present position of school libraries in secondary schools. It requested the Faculty of Arts, Department of Book and Information Science from the University of Amsterdam to carry out this research (Boekhorst and Veen, 1996a). The research question for this study was: 'What is the position of school libraries in schools for secondary education in the Netherlands?'. During the investigation of the problem, mixed research methods were used. The following quantitative (sometimes open-ended) and qualitative questions were asked:

1. General information about the school library (age, size, work desks, etc.);
2. Personnel;
3. Library committee (size, members, etc.);
4. Finances (Budget) – (investment, different kinds of financing, etc.);
5. Collection (quantity, quality, purchasing policy, etc.)
6. Technical facilities (computers, network etc.);
7. Use of the library (lending statistics, number of visitors, etc.);
8. Co-operation with teachers (department, way in which this was done);
9. Co-operation with other organisations (which and in what manner).

Data were gathered via printed questionnaires and interviews. The survey was 'push' oriented. An attempt was made to find out more about the situation in school libraries at that time, and whether or not there was a 'decisive factor' for a well functioning school library. The following factors were defined as being important for the school library:

- 'The school management;
- The Board of Directors of the school:
- Budget;
- The school working plan (strategy document)
- The library committee
- The staff of the library
- The technical infrastructure;
- The collection
- The use of the library
- Co-operation with partners
- Pupils.

In all probability, these factors, and their relationship with each other, are decisive for the functioning of the school library.' (Boekhorst and Veen, 1996a, p. 54)

Questionnaires were sent out using an address list which was supplied by the Ministry of Education, Culture and Science to 809 secondary schools. The net response (schools with a school library) was 50%. Statistical computations about the 'average school library' did not match any of the schools that participated in the survey. In fact, the survey found that there was a great deal of diversity. Using the principle of Ockham's razor it was concluded that the librarian was the decisive factor for the functioning of the school library - the school librarian was the most important factor in making the school library successful within the given context (Boekhorst and Veen, 1996a).

In a follow-up study, Hoeksema investigated the relative importance of the factors indicated in the original study (Boekhorst, Veen and Boelens, 2006, p. 3). She found that the actual physical location of the school library in the school building was another factor which is relevant to the success of the library. Boekhorst and Veen (1996a, p. 54) also made the following relevant observations:

In general there is talk of one central branch of the school library, which has an average area of 100 square metres (the approximate size of 2 classrooms).

- Only one-fifth of the schools mentioned the school library in the school working plan (strategy document).
- One quarter of the schools which completed the survey had a library committee.
- Slightly less than half of the schools had appointed a trained school librarian. Two-thirds of those who were appointed were women. The average age of the school librarian was 47 years (in 1995).
- On average, the school librarian was appointed to work for 20 hours each week. He or she received no payment for about one-third of the work which was carried out.
- 77% of the school libraries which took part in the survey relied on the services of volunteers. On average, these school libraries had eleven volunteers, who worked for a total of 20 hours per week.
- The funding of school libraries varied greatly from school to school. The annual budget which was most frequently was the equivalent of 1,000 euro's per annum.
- In 1995, the library collections were mostly 'printed' collections. There was an average of 7,660 titles in the collection.
- On average, 6,858 titles were borrowed per annum. On average, between 1 and 50 pupils and 1 or 2 teachers visited the school library each day.
- The opening hours of the school library varied from between 20 and 30 hours per week.'

At the conclusion of the study, Boekhorst and Van Veen made the following recommendations to the Ministry of Education, Culture and Science (Boekhorst and Veen, 1996a, p. 54):

- 'The Ministry should make sufficient funding available for school libraries;
- The school working plan should contain a clear definition of the aims of the school library;
- There should be a clear and adequate budget, which should be defined in specific budget posts;
- The head of the school library should be a person who had received vocational training in the area of information services and management. It is not a job for someone who has been 'parked' in the library when no other suitable work could be found for this person in other parts of the school.
- The school librarian should be employed for sufficient hours so that he or she can carry out the basic work which has been assigned.
- A library committee should be set up. It should include representatives of the users of the library, teachers and the school management.
- The technical infrastructure of the school library should not be isolated but should be integrated into the technical infrastructure of the entire school.
- In the framework of the acquisition of information, there should be good discussions and co-operation between teachers and the school librarian.
- Co-operation with other school libraries and other institutions such as the public library in the region is important.
- Further research should be carried out with regard to the staffing of the library and its importance in the day-to-day function of the school library.
- Further research should be carried out into the actual use of the school library by pupils and into particular into the role which the school library plays in meeting their information needs.'

At this point it should be noted that although the research described above speaks about the aims of the school library, it does not refer to the specific educational objectives or role of the school library in the educational process. The outcomes of the survey were published in a number of national and international publications. As a result of the survey, schools received extra funding so that they could update the infrastructure, the actual premises and the collection of the SLIC. School leaders could spend this money at their own discretion.

[The second school library survey \(2001\)](#) Five years after the initial research, Boekhorst distributed a limited questionnaire (unpublished) to delegates at the 2001 national meeting of the LWSVO and asked them to indicate how various factors affected the performance of the school library, including the 'physical location of the library in the school building'. The questionnaire was completed by 61 delegates, who indicated that the management of the school is the most important factor for the successful functioning of the school library. Questions were asked about areas which

had improved or deteriorated in the last five years. The greatest improvements were in the 'technical infrastructure' (53 times), 'collection' (43 times) and the 'collaboration with teachers' (41 times). Deterioration was mentioned in 'the functioning of the library committee' (11 times) and 'the inclusion of the school library in the school working plan – strategy document' (7 times). With regard to 'library instruction' given in the library, in 2001 most attention was given to:

- 'Information resources' (12x very much and 35 x much),
- Managing ICT (9 x very much and 34 x much) and
- 'Formulating query' (3 x very much and 40 x much)

[The third school library survey \(2005\)](#) Ten years after the first Dutch national survey, an Internet survey entitled *De mediatheek en informatievaardigheden in het voortgezet onderwijs* (*The School Library and Information Centre and Information Literacy in Secondary Education*) was carried by Boekhorst, Van Veen, Boelens and the LWSVO. Boelens joined this research team on a voluntary basis.

Before the research actually began, a specific review of current international literature, relevant to this section of the research, took place³⁶. After that, a quantitative survey was designed, with some open-ended questions. Its purpose was to review and investigate developments in school libraries in the Netherlands and to assess the present situation. School library staff in secondary schools throughout the Netherlands were contacted by the LWSVO (via E-mail and also via the LWSVO Newsletter) and were asked to complete the questionnaire. Approximately 60% of the members of the LWSVO, from approximately 35% of Dutch secondary schools (277 respondents) returned the survey. The main objectives of the 2005 survey were:

- to determine whether or not the implementation of a school library and information centre as a learning environment where educational quality and learning outcomes are affected in a positive way has been successful;
- to find out how information literacy skills have been implemented into secondary education;
- to clarify the role of the school librarian in secondary education.

Some questions were aimed at finding out more about the qualifications of the school librarian and information specialist and to ascertain whether or not this person has sufficient training (in both pedagogical and library/information skills) to teach the information literacy skills which are mentioned above.

³⁶ See Figure 1, page 16 and Figure 2, page 17.

Analysis of the data The answers were interpreted as follows:

Age, experience and qualifications of the School librarian?

- 70% of all respondents were female, 18% were male and 13% didn't answer this question
- The age of the respondents varies from 27 to 64 years of age (average age: 48 years).
- The number of years' experience which respondents had in working in a school library varied from 0 to 40 years.
- 53% had completed higher professional education and 13% had completed a university education.
- As far as professional library qualifications are concerned, 48% had followed some form of library education at an institute of higher professional education. The length of this education was unspecified. 17% completed a short courses at technical college level. 17% did some training elsewhere and 25% had no qualifications in this field at all.

Experience with ICT and Information Literacy:

- 91% of the respondents considered themselves to be information literate;
- 30% had worked with a web-based school library network;
- 48% had worked with an ELO (Electronic Learning Environment);
- 22% had worked with a Content Management System.

The survey then attempted to find out more about the actual instruction which takes place in the library and which is given by the school librarian.

Library instruction:

- At 48% of the schools some kind of library instruction was given.
- The frequency of instruction given by these school librarians was for:
 - 39% - once a year;
 - 24% - twice a year;
 - 3% - each year.
 - 30% of the respondents answered 'Other', but there was no explanation.
- The duration of instruction was as follows:
 - 19% - less than one hour;
 - 40% - one hour;
 - 10% - two hours.

It was unclear which pupils received the instruction. The questionnaire did not ask whether or not teachers also received instruction.

- What did pupils learn during the library instruction?
 - Location of books and other materials in the library – 95%
 - Explanation of library rules – 95%
 - How to search for information in the library catalogue – 86%
 - How to search for information on the internet – 75%
 - How to formulate an information query or question – 50%
 - How to use certain ICT technical skills – 47%
 - How to evaluate the quality of information – 40%
 - How to use the information which has been found and how to write down references – 24%
 - Which steps should be taken when making a search of the literature – 23%
 - Evaluation of the information search – 16%.

In order to gain insight into the kinds of questions pupils asked the librarian, the following six open-ended questions were formulated: Respondents were asked to place the answers in order of frequency. A Likert (or Lickert) scale was used , 1 = very frequently; 2 = frequently; 3 = sometimes / occasionally; 4 = seldom; 5 = very seldom; 6 = never.

- What kinds of questions did the pupils ask the librarian?
 - To help pupils to understand the assignment – seldom = 22%
 - To help pupils to formulate an information query or question - frequently = 23%
 - To help pupils to find/locate information - frequently = 35%
 - To help pupils with reading/understanding found information – seldom = 26%
 - To help pupils to process and use the information which they have found for their assignment – seldom = 26%
 - To help pupils to process and use the information which they have found for their assignment – very seldom = 29%
 - To help pupils to critically evaluate their own paper – never = 46%.

Pupils seldom asked for help in critically evaluating their own paper

Teachers' interest: The next item in the questionnaire was concerned with the importance that librarians think that teachers place on or ascribe to information literacy

skills in the learning process. Once again a Likert (or Lickert) scale was used. Nine propositions or questions were used, based on the ALA norms for information literacy (ALA, 2007):

- Pupils are taught to acquire information efficiently and effectively – Important = 39%
- Pupils are taught to evaluate information critically and competently – Important = 38%
- Pupils are taught to use information correctly and creatively – Neutral/important = 41%
- Pupils are taught to search independently for information on subjects of personal interest – Important = 40%
- Pupils are taught to independently evaluate literature and other sources of information – Important = 42%
- Pupils are taught to search for the best information and to develop knowledge independently – Important = 46%
- Pupils are taught to contribute positively to the learning community and to recognise the importance of information for a democratic society – Neutral = 36%
- Pupils are taught to contribute positively to the learning community and practice ethical behaviour in relation to information (plagiarism) and information technology (hacking) – Neutral = 34%
- The pupils are taught to contribute positively to the learning community and to be a active member of society by collecting, enriching and sharing information – Neutral = 40%.

The involvement of the school library and information centre and the school librarian in the educational process:

- 14% of the respondents replied that they are not involved in the general educational process.
- 56% is involved in an informal way: consultation in the corridors and during informal meetings and in the school canteen.
- 29% of the respondents is involved in a structured way.

The researchers checked to see if there were differences in the use of the SLIC in the educational process for five different subject groups: Languages (e.g. Dutch, English, French, German etc.); Science (e.g. Maths, Physics, Chemistry etc.); Social Studies (e.g. Geography, History, Biology, Economics etc.); Art and Culture (e.g. Drawing, Art History, Music, Drama, Dance etc); Technical Education subjects oriented towards a

trade of profession. The conclusions showed that when the school librarian is involved in the educational process, he or she is most frequently involved with the languages departments, and least involved with the science and technical education departments. After the results of the survey had been analysed, Boekhorst attended several meetings, speaking to about school librarians, and discussed the implementation of information literacy skills into the general curriculum. These librarians confirmed that they were very interested in the integration of information literacy skills into the curriculum, however, they feel an attitude of resistance from teachers and a disinterest from the school management. (Boekhorst, Veen and Boelens, 2006).

The evidence which was collected during the 2005 survey shows that a large number of school librarians in the Netherlands have not been trained in accordance with the recommendations which were given at the beginning of the Second Stage Secondary Education. However many of them are enthusiastic about their work and have continually displayed a willingness to be retrained. Although some schools have attractive school libraries with good facilities, only a small percentage of the library staff have a teaching accreditation. Many stated that they carry out 'library instruction' – the word 'instruction' is used, not 'teaching'. The use of this word is related to cost cutting measures, since, within the Dutch education system, qualified teachers receive a higher salary than a trained librarian. Others have very simple library qualifications (library clerk) or no library qualifications at all. Some school library staff take part in short, retraining programmes; many are female (70%) and work on a part-time basis, which means that the school library has reduced opening hours or is supervised by volunteer parents at certain times.

Validation The results of this survey were validated by:

Expert interviews, observations of teachers and pupils and observations during provincial and national school library meetings (LWSVO) and field trips to other school libraries in the Netherlands. School librarians throughout the Netherlands (LWSVO members) were also invited to attend seminars at the Kalsbeek College, where discussion were held.

Discussions with teachers and school leaders with regard to their vision concerning the introduction of information literacy practices into secondary schools.

Summary of the results of the third school library survey (2005) There is evidence that approximately about 35 %³⁷ of secondary schools in the Netherlands have a school library. Not all school librarians have received professional training. Their main activities are usually concerned with library administration (including technical and clerical duties), although some seem to be taking a greater part in improving the information literacy skills of pupils. Most school library staff is not involved in the general educational program. Their best contacts are with the language departments.

Finally, at the end of the 2005 study, certain recommendations were made, as follows (Boekhorst, Veen and Boelens, 2006). Over a period of 10 years, the position of the school librarian and the school library has been mapped from a 'push' viewpoint. The next logical step would be to start an investigation from a 'pull' perspective, for example: 'How is the SLIC actually used? By whom? For what kinds of information tasks?' Knowledge supplied from this kind of investigation would make it possible to gear the SLIC to the needs of the school. In the Alexandria declaration (IFLA, 2005a), governments have been asked to recognise the importance of lifelong learning and information literacy skills in education and learning. It is therefore most important that information literacy skills be clearly integrated into the school curriculum and are recorded in the school working plan. This thesis reveals that school librarians can play an important role in this integration.

Other relevant information relating to the present state of school libraries in Dutch education In 2006, a booklet describing the important of information literacy skills in education was published by the Open University in the Netherlands (Veen, 2006). In the introduction, Veen makes the following statement (p. 11):

Three developments have formed a driving force for the increasing attention which is being paid to information skills in education:

1. The digitalization of information
2. The 'learning to learn' concept, which leads to lifelong learning
3. Policy makers have become more interested in information skills.'

Veen clarified the third development (- policy makers have become more interested in information skills -) by stating that: 'during the 1995 investigation, it became apparent that there were large differences from one secondary school library to the next. They ranged from a renovated broom cupboard to a learning centre with good facilities. Since that time, a lot has changed. The emphasis of the Second Stage of Secondary

³⁷ This figure was calculated as follows: In 2005, there were approximately 800 secondary schools in the Netherlands. School librarians from 277 schools returned the survey.

Education is not only on the gathering knowledge, but also on the use of large amounts of information and the development of practical and social skills. Schools have been provided with a good ICT facilities. The next logical step is that policy makers in education should now look into information literacy skills. After all, the reason that ICT was introduced into the educational process was to increase the learning results (academic achievement). This fact it mentioned in the (recent) law *Beroepen in Onderwijs (Jobs in Education)*. While the words 'information skills' are not specifically mentioned in the law, they are more or less described in the description of 'instructional competencies in the use of ICT' (Veen, 2006, p. 14).

Veen (p.15) goes on to state that the ability to understand and apply information literacy skills is closely linked with quality in education and describes the following challenges for teachers, as follows:

'Many pupils think that they can drive as soon as they sit on the motor scooter. It's the same with information literacy skills. Pupils confuse their – sometimes well-developed – (technical) skills in using the computer with the ability to use information. Every teacher knows that a pupil has to learn a lot before he can hand in a good paper. The challenge is therefore to point out the mistakes which a pupil has made and to lead him from being 'unconsciously incompetent' to being 'consciously competent'. This is the natural road to the acquisition of knowledge..'

The publication describes lessons in information literacy skills – including instruction at 3 levels and also how to learn complex information skills. It also contains a continuous learning line or curriculum for information literacy skills.

[Co-operation with Public Libraries](#) In the Netherlands, there is often co-operation between primary and secondary schools and public libraries (school library services – SLS). Sometimes special funding (subsidies) and staffing are provided for this purpose. This co-operation has not been mentioned in the three Dutch national studies. Questions need to be asked about the educational objectives of this co-operation and its effect on the SLIC. The specific pedagogical training of all librarians who take part in this work needs to be reconsidered.

[A short study of multicultural issues and attitudes](#) Pupils in any one classroom often come from many different social and cultural backgrounds. Sometimes they speak more than one language and their mother tongue may not be the language which is spoken in the classroom. Norms and values which are acceptable to one culture may be in conflict with those of another. As part of the study at Dutch national level, a small survey was carried out in two schools and a public library, in order to try to find out what kind of access pupils had to ICT technology in their homes. Did some

pupils rely on the ICT facilities which were provided by the local public library, in order to do their homework? The survey found out that school age children visited the public library after school, to use the computers, for the following reasons:

- The computer at home wasn't working;
- The printer at home wasn't working;
- They did not have a computer at home;
- Their brother(s) would not let them use the computer at home.
- Parents from some cultures felt that, after school had finished for the day, the public library was a 'safe' and 'protected' environment for their daughters.

Children who took part in this study were mostly girls from different cultural groups, who explained that they enjoy using the library as a social, after school meeting place. Librarians observed that the children usually used the computers for recreational purposes (games) and not for their homework. The girls who were frequent visitors told the librarian that their parents considered the library to be a 'safe' place for them to visit after school. This survey raised not only financial (annual family income, two-income family) and social issues (such as the size of a family and the number of children using one, sometimes outdated PC), but also brought interesting gender issues to light, related to the position of girls in some cultures, which affected their access to ICT within their own home. Children from large families with a low income also explained that they sometimes have to 'wait their turn' to use the family computer. Older pupils need to access the school ELO via Internet, so that they can complete some of their homework. Some parents were unaware of this (and the financial consequences) when they initially enrolled their child in a particular school.

[Curriculum for information literacy skills](#) In November 2007 the National Expertise Centre for Curriculum Development in the Netherlands published a report entitled *Naar een leerlijn informatievaardigheden (Towards an information literacy curriculum)*, (Kaap and Schmidt, 2007). This important document refers to social changes and also to the ever increasing amount of information which is available in our knowledge-oriented society. It also refers to the report on Mediawijsheid (Media Wisdom or Media Literacy) which was presented to the Dutch government (Raad voor Cultuur, 2005) - (see page 160). The report from the National Expertise Centre for Curriculum Development provides useful comments about the use of information in Dutch schools.

'If teachers give pupils research-related tasks, they expect that, by searching for information on the Internet, pupils will be able to carry out the given task in an effective and efficient way. They take for granted that pupils have the skills to operate the computer, and also have the necessary information literacy skills. Problems arise when it becomes necessary to search for, select, interpret and use information. Research carried out by Kuiper (2007) indicates that many pupils have already developed some Internet searching skills at a relatively young age, but they do not have the ability to reflect on the results which the search engines have produced and are unable to read the texts on the websites in a critical way. Of course, these are the skills which are decisive for the efficient use of internet in learning. Teachers who want to make effective use of internet should not leave out the important task of teaching pupils information literacy skills. ...

The use of internet is then thought to be a 'nuisance'. Teachers do not know how they can guide pupils in its use, and have the impression that pupils are indeed able to produce attractive papers but they are unsure as to whether or not they have actually learned anything from the information which they have found.

The use of internet for learning purposes has little connection with the way children approach and use the Internet outside the school. The internet skills which are essential for learning do not come to pupils (or teachers) automatically. This indicates that certain competencies are necessary when the internet is used in learning. This applies to pupils, teachers and lecturers at teachers' colleges. If these competencies for using the internet as an integral part of learning are not used, the actual effect of the use of the available internet facilities is underdeveloped.

Also, according to Brandt-Gruwel (2004) and members of the research group, pupils in secondary education and students in tertiary education do not have adequate information literacy skills.' (Kaap and Schmidt, 2007, p. 3).

The document provides a clear definition of information literacy skills and how they can be taught. It also describes precisely how the (Dutch) curriculum for teaching these skills evolved, and how this curriculum can be implemented. This curriculum is presently being tested (2009-2010) in a pilot project at a large secondary school in Almere, the Netherlands.

Although similar documents have been published in English in various countries, this is the first Dutch report of this kind. Although it provides a vision of how information literacy skills can be taught in Dutch education, the document does not clearly state that these skills should be taught to pupils in an interdisciplinary way and does not explain who, in the school, is already conversant with these skills and will teach them (this curriculum) to pupils, and other teachers. Johnson, Levine, Smith and Smythe also raised this specific question in 2009. Also, in the report written by Kaap and Schmidt (2007), there is no reference to the essential intervention of the school leadership in the interdisciplinary co-ordination of the use of information throughout the entire school.

[Mediawijsheid \(Media wisdom\), Media-educatie \(Media education\) and Media Literacy](#)³⁸ In 2005, the Dutch Cultural Council presented the Minister of Education, Culture and Science, with a report on the significance and use of the media in present day society and the role which the government should play in these developments. Since then, a relatively short course known as the National Training Media Coach (NOMC) for teachers and trainee teachers, library and school library staff, and staff from various health services has become available. School library staff throughout the Netherlands have enthusiastically enrolled in this course, once again exhibiting a willingness to retrain themselves, in order to keep up to date with recent information and media trends. At the end of the course, successful participants receive a certificate at 'post-higher technical college level'. This thesis questions the actual value of this certificate, which seldom leads to any increase in the status of the school librarian within the school. The course's actual accreditation at (European) tertiary level should be clarified.

[Problems in education in the Netherlands : The Dutch Debate](#) regarding quality in the teaching profession is also relevant to this study. According to Duijn (2007, p. 224), there is a lack of quality in education and in the teaching profession (in the Netherlands). He compares statistics from various countries in Europe and concludes that the status of the teaching profession, and the salaries of teachers within the Netherlands have decreased, thus concluding that people who are now entering the teaching profession are not of the same quality as those who became teachers ten or more years ago. They do not have the same academic background and are less able to cope with changes within their profession. The observations made by Duijn are also widely acknowledged in the Dutch press. They are also confirmed by information contained in the Eurydice database (Eurydice, 2007. Country: The Netherlands). This lack of quality in the teaching profession may indicate that there is a lack of quality in the education which pupils are receiving.

On 12 September 2007 this matter was debated in the Lower House of the Dutch Parliament (Tweede Kamer, 2007). A report from the Rinnooy Kan Committee, concerned with the shortage of teachers in Dutch schools was reviewed. The report suggested that the salaries of teachers should be increased considerably. It also recommended that the law relating to the dismissal of employees should be relaxed (the implication being that employees who do not carry out their work satisfactorily could be dismissed more easily). On 23 November 2007, the Dutch Minister of

³⁸ Defined in Chapter 8, page 56

Education, Culture and Science, made a statement about increases in teachers' salaries, in order to make teaching a more attractive profession (Ministerie van Onderwijs, Cultuur en Wetenschap, Directie Communicatie, 2007, p. 1), as follows: 'Appreciation of the teaching profession must be increased. Teachers should not only be able to expect better salaries (with a strong accent on their own education and performance) and better career prospects, but their position within the school should also become stronger'. According to Walters (2007), there are more reasons for the shortage of teachers other than the low salary which is offered for their work.

In 2008, a report entitled *Tijd voor Onderwijs (Time for Education)*, was presented in the Dutch parliament (Dijsselbloem, 2008) and was debated on 15 April 2008 in the lower house of the Dutch parliament. It contains important information which is relevant to this present research. This parliamentary inquiry conducted by the Dijsselbloem Commission investigated the modernization (or renewal) and the quality of education (educational reforms) in the Netherlands since the nineties. A summary of the final report states that the Commission has concluded that during the last few years, the Dutch Government has neglected one of its major responsibilities – the absolute certainty of good education. It describes a period of radical change in education, followed by a period of increasing school autonomy. The Commission determined that the responsibilities of the government and those of the schools have become mixed up and are therefore unclear, and that the public's trust in the education system, and in government's educational policies needs to be restored. The Commission concludes that the way in which educational reforms were introduced since the beginning of the nineties explains the reason for the present concerns. Furthermore the Commission mentions the lack of the Government's proper supervision to ensure educational quality and makes suggestions about the application of current and future changes in education, such as new forms of learning. It offers advice to both politicians and school leadership, so that they can better fulfil their roles (and responsibilities) in the future. The Commission concludes that, at the moment, the government does not have an effective instrument to measure the quality of education and that not too much value should be placed on the relatively good position of the Netherlands in international rankings. On the basis of fragmental studies into the development of quality in Dutch education, the Commission arrived at the conclusion that there is a decline in basic skills such as reading and mathematics. Skills of pupils should be tested in an effective way. Also, a National Monitor of Education will be established in order to provide a clear picture of how much actual time is spent in teaching pupils, and how much money is spent.

A lot of the blame for the problems in Dutch education is given to the unstructured introduction of new forms of learning and great risks have been taken during their introduction. Clear educational objectives should be provided and a scientific structure for the effective use of new forms of learning should be made available. In the Dijsselbloem Commission's report, the link between the introduction of ICT into the schools and the introduction of new forms of learning is not specifically mentioned, even though many new forms of learning are made possible or enhanced by the use of ICT. No mention has been made of the problems which have been encountered during the introduction of ICT (as an educational tool) into the schools, even though there have been a multitude of costly problems. This has been confirmed by informal interviews during school visits. Also, discernment regarding the emphasis and use of ICT within the school (for educational, administrative or managerial purposes) and the costs involved have not been mentioned. Clear directives need to be given at governmental level. These directives should be primarily directed towards the use of ICT as an educational tool to promote educational quality.

Also, no mention has been made about how teachers were prepared (or perhaps unprepared) to meet these challenges. Although training courses were held for some teachers, the results have not been monitored. However, the Dijsselbloem Commission concludes that the quality of training for teachers in secondary education is crucial to the quality in education.

Similar problems have been recognised in other countries. Tyack and Cuban have written about this subject in considerable detail, (Tyack and Cuban, 1997), (Cuban, 2003) and (Cuban 2004). For this reason, this thesis concludes that it would be advisable to review the Dutch problems in an international perspective.

The 'Brede school' Since 2007, an educational experiment has been taking place in a considerable number of Dutch primary schools (for children from age 0 – 12 years). Although this research at Dutch national level is mostly concerned with school libraries in secondary schools, recent developments which are clarified below are very relevant to this study. On 27 February 2007, the Brede School Schilderskwartier (the Wide or Extensive School) was opened in Woerden. By the end of 2009, a total of 147 Brede schools were either operating or being developed (Brede School, 2009). The Brede school was initially a concept for primary education however there is now interest in establishing Brede schools in secondary education. Within this concept, a number of different educational organisations work and co-operate together under one roof. The Brede School in Woerden includes a non-denominational public primary

school, a Protestant primary school, a children's library (run by the local public library and open to all those who have a valid public library card), a pre-school, and a crèche for babies and toddlers. There is also a facility where school age children are supervised before and after school, a children's health care centre, a health care centre for babies and toddlers, a sport hall (gymnasium) and other multifunctional areas (which can also be hired by local groups). The Brede school is a place where people from many different cultures work together to help and support children and their parents. When the children reach secondary school age, many of them just literally 'cross the road' to the Kalsbeek College.

As mentioned above, the public library runs an attractive children's (branch) library in the Brede school in Woerden. Pupils can visit the library during school time, sometimes with a specific instruction from a teacher. Since it is not known whether or not all the 147 schools mentioned above have a library on the premises, this would need to be the subject of further study. The library at the Brede school in Woerden also provides an important service to pupils from the Kalsbeek College. Secondary school pupils who have learned to order books and information using the Dutch national catalogue can easily pick these books up during breaks or after school. These services and the co-operation between the public library and the schools is free of charge.

This thesis questions the training in both the educational and library process of the staff at this library, and also the co-operation at pedagogical level which exists between teachers at the school and the library staff. This would need to be the subject of a further study.

[Other new developments relating to the use of ICT \(as an educational tool\) in the Netherlands](#) The use of ICT technology within the school and the products and services which are available are constantly changing³⁹. The following new developments will further affect the application of ICT as an educational tool in (secondary) schools. National examinations (at secondary school level) are starting to be held online via the internet. While there are good reasons for taking this action (with regard to marking and the publication of results), it means that the technical management of the school network needs to be really reliable. Also, security within the network becomes even more important.

Furthermore, textbooks are beginning to be published in digital form for use in the classroom. While this would be a cost saving for parents, pupils and teachers will

³⁹ See Figure 3, page 48.

need to be able to access the textbooks at school and at home in a reliable way. There would need to be enough (high quality) PC's available throughout the school and at home to make this possible. Pupils from large families might have to wait while a sibling completes his or her homework or other online learning.

Critical success criteria and answers to the research questions at Dutch national level The study at local level described four critical success criteria⁴⁰ for the implementation of the KILM sub-matrix at local level. This study at Dutch national level concludes that there is a fifth critical success factor at national level, i.e. the educational vision at government level. Therefore the five critical success factors at this level of the research are:

- Educational vision of the national government;
- Vision of the school leadership;
- Vision and quality of the school librarian and information specialist and other SLIC staff;
- How the SLIC presents itself to and co-operates with the rest of the school community and makes itself visible;
- The role of the school and the SLIC in the information society.

The answers to the research questions at this level are connected to these criteria. Although a considerable number of secondary schools libraries have the facilities and the trained staff who would be able to introduce the KILM, without the combination of certain critical success factors, it is doubtful that the KILM would be successful.

Educational vision of the national government The national government needs to provide clear, compulsory guidelines with regards to educational reforms, new forms of learning, the introduction of ICT (as an educational tool) and 21st century learning skills, for school leaders to follow. Evidence contained in the review of the literature shows that the school library and information centre, applied under specific conditions, enhances educational quality. A statutory national school library law should be implemented at all school levels in the Netherlands.

Educational vision of the school leadership The educational vision of the school leadership and its ability to lead the school through this period of change is essential. The school library must play an integral part in this vision in the school policy statement. The KILM sub-matrix was implemented as part of an educational matrix. If the KILM is to be implemented into other schools, the school leadership needs to establish its educational vision and to understand the educational advantages of both the educational matrix and the KILM. It could then introduce and co-ordinate a similar

⁴⁰ See Chapter 20, page 143.

system of co-operation throughout the school. At the Kalsbeek College, this was done using a democratic process.

The research reveals that a considerable number of school leaders disregarded the advice and guidelines which were provided to the Steering Committee after the first Dutch survey. They applied their own standards to both the facilities and staffing of secondary school libraries, without an adequate knowledge of the advantages which a good school library could supply to the quality of education during the evolution of the information society. As a result, there is a great diversity in 'school libraries' in Dutch secondary schools. Its role or mission now varies from school to school. The decisions which were made (described above) could indicate a lack of educational or pedagogical vision. Duijn (2007) also casts doubt on the quality of school leadership; this should be investigated further, at governmental level.

Vision and quality of the school library and information specialist and the school library staff The availability of trained school library and information specialists, accredited in both teaching and librarianship is also essential. The research reveals that the quality, qualifications and role within the school of the school library staff also varies from school to school. School librarians who took part in the 2005 study complained about their low status within the school, and the lack of appreciation for much of the work which they are trying to carry out. During interviews, they also mentioned that teachers did not want to admit their lack of certain ICT and information literacy skills and that they were 'resistant to change'.

How the SLIC present itself to the school community Despite the fact that they may feel that their work is not fully appreciated by both teachers and the school leadership, and that there is a lack of co-operation, many school librarians are very enthusiastic about their work and have shown willingness to undertake continuous re-training, in order to keep up with the current trends in the information society, so that they are in a position to pass this interdisciplinary expertise on to the school community as a whole. This information has also been confirmed by field trips and interviews.

Training of school library staff There is an urgent need for training at tertiary level in pedagogy and library and information skills of school library staff. The third school library survey confirms that in many of those who are presently in service will be retiring within the next 10 years. In the present information society, trained school librarians and information specialists play an essential role in the school community and should be carefully trained.

The role of the SLIC in the information society The review of the literature (Part 1) constantly refers to the complexity of the (emerging) information society and the fact

that many teachers and educators do not understand the changes which are taking place. Furthermore they are unable to keep up with these changes in their teaching. The SLIC provides facilities which help the teaching staff through this difficult period of change.

Although the actual physical facilities (quantitative measurements) provided by the school are important, they are less critical. Clearly pupils and teachers need access to a traditional and digital learning environment throughout the school, including a well-equipped SLIC with an adequate budget and properly trained staff. The facilities of the SLIC should be left to the expertise of the trained school librarian and information specialist, co-operating with the school leadership. During the study at European level (carried out consecutively), it became apparent that quantitative measurements of facilities are not always accurate or essential to the study.

Conclusions The setting for this research at Dutch national level has been described above and can be briefly summarised as follows. Changes which affected education took place during the evolution of the information society. In the beginning of the nineties, when educational reform, new forms of learning plus ICT technology were introduced into Dutch secondary schools, it was 'suggested' that the school library and information centre (SLIC) would play an important role in these changes. The 1995 and 2001 studies carefully examined the condition of the secondary school libraries and recommendations were presented to the Ministry of Education.

The 2005 survey was sent to 809 secondary schools. According to LWSVO records, approximately 450 of them had a school library and information centre; 277 surveys were returned. Since then, some school libraries have closed, after the school leadership decided that libraries which were set up incorrectly and are not properly staffed are unnecessary. They presumed, incorrectly, that pupils and teachers can find all the information which they need via the Internet (as described in Chapter 10). Perhaps insufficient retraining was provided for school leaders at that time, resulting in these decisions.

It can therefore be concluded that although some secondary schools did implement school libraries, they were set up at the discretion of the school management, which may not have had a clear understanding of the effects of the information society on education and did not follow the guidelines which had been given. Others have no school library at all. The advice which was given to the Steering Committee Profile Second Stage Secondary Education (Stuurgroep Profiel

Tweede Fase Voortgezet Onderwijs) - Dam (1996) - was not followed by many schools.

The educational vision of the school leadership plays an important role in this entire issue. These decisions mentioned above demonstrate a lack of vision regarding the new pedagogical role of the SLIC. Duijn (2007) suggests that the qualifications of some school managers and school leadership may not be adequate. Although some have strong managerial qualities, they lack sufficient academic and pedagogical qualifications. Recent decisions in Australia have clearly recognised these problems and the necessity for highly trained school leadership (Ferrari, 2010). This thesis suggests that the qualifications of school leaders in the Netherlands should be reviewed in a further study.

The school working plan (strategy document) should contain a clear definition of the aims of the school library, however some school leaders did not know what constitutes a good school library and cannot define it. They did not realise that it could be used to improve academic achievement within the school. Although some schools did try to improve their school libraries, no specific national or international guidelines or definitions were used, even though they are available in Dutch - (IFLA/UNESCO, 1999 and IFLA/UNESCO 2002).

Because of the continuously changing nature of the information society (Patton 2008, page 5), pupils need to learn information, media and new literacy skills at a young age, so that they can carry out new forms of learning. Published research confirms that these skills lead to an increase in academic achievement, and that they need to be taught in an interdisciplinary way to all pupils by a professional information specialist and teacher (known internationally as a teacher librarian or TL). These skills should be part of the curriculum and should be implemented into the school roster at all levels throughout the school as a specific subject.

Research confirms that many teachers do not have the necessary information literacy skills which are needed for 21st century learning. It also verifies that they do not acquire these skills naturally (Probert, 2009). ICT technical skills and information literacy skills of all teachers should be properly assessed, using a compulsory test, and should be re-tested at regular intervals.

In view of the fact that information, media and new literacy instruction is interdisciplinary, good co-operation within the school, between school library staff and the teaching staff, is essential. This should be co-ordinated by the school leadership. School librarians and information specialists, with a teaching accreditation, can co-operate with teachers on an equal level. This would be in line with the results of

research in the USA, Canada and Australia. Since the Netherlands does not have a strong school library tradition, it may be both helpful and advisable to review the Dutch problems in an international perspective, since educational systems in other countries have experiences which might be useful and helpful. This thesis recommends that recent, relevant international publications about the successful implementation of school libraries into the school curriculum should be translated into Dutch and circulated as broadly as possible. These publications explain how a quality SLIC can influence educational quality and educational achievement throughout the school

The school librarian and information specialist has a new role within the school. The conclusions to the 1995 Dutch survey and the subsequent recommendations to the Ministry specifically called for the employment of qualified staff to run the SLIC. As teaching in the information society evolves within the school, the skills of the school library and information specialist become more and more important. Also, the need for a new kind of learning environment (the SLIC) has become clear. The research now shows that often, unqualified staff were not employed, often on a part-time basis. Because of poor decisions which were made in schools in the nineties, the SLIC is often manned by untrained personnel who have been employed at a low salary scale or by volunteers, in order to 'save' money. Some staff have followed short trainings at technical college level. The average age of people working in the school library is 48 years. A relatively high percentage of qualified school librarians and information specialists who are now running the school library will be retiring shortly, however the number of students who are being trained as school librarians at academic level in the Netherlands is virtually zero. Library staff who are not properly trained but who have many years of experience should receive an opportunity to retrain themselves and/or to verify their skills by formal (national) testing by an accredited body.

On the other hand, many of those who were employed in the SLIC have shown a definite willingness to carry out their tasks and to retrain themselves, via short (commercial) course. However, since some of these courses actually have no academic accreditation, the enthusiasm of school library staff is rewarded with low salaries and a low status within the school and disinterest from teachers and the school management, who do not co-operate with them as equals. At the present time (2009), school library staff do not have a strong position or status within the school, or in the Dutch educational world as a whole.

School libraries (which conform to the guidelines of the *School Library Manifesto* (IFLA/UNESCO, 1999) at primary school level were until recently virtually non-existent in the Netherlands, except in some private and international schools.

Emerging international research confirms that school libraries at primary school level, which are run by a trained school library and information specialist would also help to increase pupils' reading skills and would be influential in teaching them essential information, media and new literacy skills from an early age.

The results of a small 2008 survey show that often systems managers have been allowed to determine what ICT facilities the library 'needed'. The trained school librarian was not consulted or was over-ruled (Smeets, 2008). Although co-operation between the library, teachers and the school management is a critical factor in the success of the work of the SLIC, the library staff have reported 'an attitude of resistance by teachers and a disinterest from the school management' (Boekhorst, Veen and Boelens, 2006).

During an informal interview, LIS students revealed that they believe that work in a school library in the Netherlands offers them no prospects: the salary and their status within the school are both low. Other employment offers better opportunities. New training programmes, at academic level, need to be set up to train school librarians and information specialists in library (information) and pedagogical processes. These new staff members should receive a fair salary and working conditions, comparable to that of other teachers. These trained staff members would be in a position to correctly implement the SLIC as a learning environment, thus affecting educational quality and learning outcomes throughout the school.

Short telephone interviews confirmed that two tertiary level schools of library and information science (LIS) closed in 2007. Two other institutes reported that they had virtually no Dutch students in their programmes and that international students were 'keeping the programme alive'. Accredited tertiary level programmes which provide training in two different processes – the educational process and the library process – could not be found. This problem needs to be investigated at national policy level.

Many existing school libraries in the Netherlands do not have an adequate budget. Although government funding was made available for improvements in SLICs, school leaders could spend these funds at their discretion and there were those who decided not to spend it on school library facilities.

Final remarks The structures and strategies used at the Kalsbeek College to integrate educational reforms, the introduction of ICT (as an educational tool) and new forms of learning, including the use of an educational matrix and a sub-matrix (KILM), provided positive effects on the quality of education within the school. Also, the review

of the literature provides evidence of International research which clearly confirms that school libraries definitely play a role in educational quality and academic achievement. A good school library and information centre (SLIC) run by a qualified school librarian and information specialist is not the answer to all the problems in Dutch education at the present time, but it may help to answer or alleviate some of them. The neglect of these facilities is unwarranted and inadvisable. The careful, co-ordinated and structured use of the information and ICT facilities within the school, using the skills and knowledge of this specific staff member may not only result in an increase in educational achievement but may also cause cost reductions. Figure 12a, page 243 and Figure 12b, page 244 describe possible solutions for problems which have been described.

Chapter 22: Research at European level

Theory This European study attempts to obtain information about the quality of school libraries and their staff in a total of 61 countries. As mentioned in the research questions at European level, the expectation is that this information could then be used to gauge the following: the present state of school libraries in Europe and the differences in school libraries and information centres from country to country; the mission of these school libraries; the goals of the school libraries since the instruction of ICT and new forms of learning into the schools; the effect which these school libraries have on educational quality and learning outcomes. The research will also look at the quality of learning in countries which have a strong tradition of school librarianship.

Furthermore, if schools throughout Europe are able to provide (quantitative and qualitative) conditions similar to those which exist in the school library and information centre (SLIC) at the Kalsbeek College in Woerden, the Netherlands, they should be able to implement the sub-matrix known as the KILM. By examining essential and less essential conditions for the application of the sub-matrix, the study will try to ascertain which school libraries and information centres should be able to (partially) implement the sub-matrix, or a similar kind of tool, using the available facilities. This matrix should support the introduction of ICT as an educational tool within these schools and could also be used to help to implement new forms of learning. The ultimate goal is to improve educational quality and academic achievement throughout the school.

Introduction As explained in Chapter 1, page 19, the research in this chapter was prompted by the ENSIL Foundation (European Network for School Librarianship and Information Literacy) during its inaugural meeting in April 2003. Delegates expressed an interest in the implementation of the KILM at the Kalsbeek College in Woerden, the Netherlands and asked whether or not the original study could be extended, in order to find out whether or not a similar sub-matrix could be implemented in school libraries in secondary schools throughout Europe. An investigation of the present state of the school library and information centre (SLIC) and the position of the school librarian and information specialist within the school, at European level, was also desirable. This thesis investigates these questions. Research was carried out on a voluntary basis.

As explained in the methodology, Arnove and Torres, (2003, p. 1) have made clear that conceptual and methodological frameworks for this kind of international study are constantly being reshaped, due to many different factors and forces. They confirm

that an understanding of the interactive process which is taking place in this kind of comparative study, which covers two different disciplines at international level, is central to this study.

[Background information](#) and data for this research at European level has been received from representatives and organisations from educational and school library communities in all corners of Europe. Initially, due to some (mis)communication problems, information was not forthcoming from a number of countries. There was also a certain ‘suspicion’ about the objectives of the study, however, after this was discussed and clarified at national and international conferences and also in E-mails, listservs and blogs, more information was received. Without this cross-border, cross-language, cross-culture co-operation, this study would not have been possible. Information was provided in an atmosphere of trust and co-operation. The researcher is very grateful for this support but is also aware of the ethical responsibility to present this information in a fair, responsible and impartial way.

The information and data which has been received are applicable to public, government funded schools and their libraries, and also to private (privately funded) and international schools. In some countries, separate information on secondary school libraries was either unavailable or was part of information related to both primary and secondary schools. For this reason, the European study contains information about both types of school libraries. Difficulties which were encountered in obtaining information are explained below.

As the European study proceeded, it became evident that each country in the study has its own unique social, educational and library context. Very diverse qualitative and quantitative information and data for each individual country was compiled from questionnaires and other sources. In some cases, there is a wealth of information, in others very little. For this reason, an appendix (Appendix III) has been prepared, which records relevant information and data for each individual country in the research. As explained in the methodology, a paradigmatic model was designed and completed for each individual country, in order to make comparisons of data possible (page 121). At the end of each country study, there is also a bibliography of specific references which were used for that particular country.

Chapter 3 provides historical, international background information about school libraries in different countries. Although quite a lot is known about the history of school libraries in some English speaking countries such as the United Kingdom, Canada, the U.S.A. and Australia, very little has been written (in the English language) about the

evolution of school libraries in mainland Europe. Initially, the intention was to carry out a survey of school libraries in countries which were members of the European Union and/or the Council of Europe. However, in 2008, a very important document was published by the IFLA (International Federation of Library Associations) – the *IFLA/FAIFE World Report 2007* (IFLA/FAIFE, 2007). Although this report has been published regularly for a number of years, in 2007, for the first time, contributors were asked to submit information about school libraries, thus providing interesting information to the international school library community. Information and data were now available about school libraries in a number of countries which had previously been very 'silent'. The IFLA received reports of large numbers of school libraries. For this reason, the research took a different turn. A decision was made to dig deeper, to find out more about these 'silent' school libraries (see page 229) and to include them in the survey.

Which countries should be included in this study? The European study includes members of the Council of Europe (or candidate members), members of the European Union (EU) (or candidate members) and countries which were formerly part of the U.S.S.R.. In some of the documents and reports which have been used to obtain data for this research, England, Scotland, Wales and Northern Ireland, which are actually part of the United Kingdom, have been defined as separate countries. Other documents and reports only provided information about the United Kingdom as a whole. Also, some documents and reports separate the different language communities in Belgium (Flemish, French and German speaking communities); others provide information and data for the entire country of Belgium. Where possible, these different language communities have been treated as separate countries in this research. This means that England, Scotland, Wales, Northern Ireland and the three separate language communities in Belgium are defined as separate countries in the individual country reports. When information or data was only available for the U.K. as a whole (entire country) or for Belgium (entire country), this is stated clearly and decisions which were made concerning the data are clarified. This means that data for this research has been collected for separate 61 individual countries / country reports. (see Table 4, page 175).

Language is very important within Europe, for reasons related to national pride, cultural heritage and/or national identity. It plays an important role in communication within Europe. A total of 52 official and national languages are spoken and used in the 61 countries in this study (see Table 5, page 176 and Table 6, page 177) and have

been taken into account in this study; 23 of these are official languages of the European Union, which in general uses English, French and German as procedural languages (European Commission, Multilingualism, 2009). While English could be called world language or a 'common second language' in some northern European countries, national languages are more important in many other European countries. Because of these language issues, communication at European level between school librarians and information specialists is sometimes difficult, and was one of the factors which limited information retrieval in this study. Questionnaires for the study were sent out in English to the 61 countries mentioned above. .

ENSIL questionnaires which were sent out in 2007 and 2008, specifically asked interviewees to indicate their preferred second language. English was the most popular; the second was Russian. Also, during informal interviews at national and international conferences, school librarians were specifically asked if they were able to easily read English documents, books, papers and other information, and specifically information about recent developments in school librarianship. Many of them replied that they could not do so. Although they sometimes had a working knowledge of English, German, French or Russian, they were unable to read and understand more complex documents. This problem has serious consequences for the school library world in Europe. Although numerous research and other documents about new trends in school library work and its importance for academic achievement of pupils have been published in English, these works are seldom translated into national European languages, often for economic reasons. Translation costs are sometimes prohibitive. This means that school librarians throughout Europe do not have access to many valuable publications which would help them in their work and which would also be valuable in the advocacy of school librarianship throughout Europe.

Table 4

Selection of countries for this survey					
	Country	EU Membership status	Council of Europe	Former USSR	
1	Albania		Council of Europe		
2	Andorra		Council of Europe		
3	Armenia		Council of Europe		
4	Austria	EU Member	Council of Europe		
5	Azerbaijan		Council of Europe		
6	Belarus			Former USSR	
7	Belgium	EU Member	Council of Europe		
8	Belgium (Dutch speaking)				See Belgium
9	Belgium (French speaking)				See Belgium
10	Belgium (German speaking)				See Belgium
11	Bosnia & Herzegovina		Council of Europe		
12	Bulgaria	EU Member	Council of Europe		
13	Croatia	Candidate EU Member	Council of Europe		
14	Cyprus	EU Member	Council of Europe		
15	Czech Republic	EU Member	Council of Europe		
16	Denmark	EU Member	Council of Europe		
17	Estonia	EU Member	Council of Europe		
18	Finland	EU Member	Council of Europe		
19	France	EU Member	Council of Europe		
20	Republic of Georgia		Council of Europe		
21	Germany	EU Member	Council of Europe		
22	Greece	EU Member	Council of Europe		
23	Hungary	EU Member	Council of Europe		
24	Iceland		Council of Europe		
25	Republic of Ireland	EU Member	Council of Europe		
26	Italy	EU Member	Council of Europe		
27	Kazakhstan			Former USSR	
28	Kosovo			Former USSR	
29	Kyrgyzstan			Former USSR	
30	Latvia	EU Member	Council of Europe		
31	Liechtenstein		Council of Europe		
32	Lithuania	EU Member	Council of Europe		
33	Luxembourg	EU Member	Council of Europe		
34	Republic of Macedonia	Candidate EU Member	Council of Europe		
35	Malta	EU Member	Council of Europe		
36	Moldavia		Council of Europe		
37	Monaco		Council of Europe		
38	Montenegro		Council of Europe		
39	Netherlands	EU Member	Council of Europe		
40	Norway		Council of Europe		
41	Poland	EU Member	Council of Europe		
42	Portugal	EU Member	Council of Europe		
43	Romania	EU Member	Council of Europe		
44	Russian Federation		Council of Europe		
45	San Marino		Council of Europe		
46	Serbia		Council of Europe		
47	Slovakia	EU Member	Council of Europe		
48	Slovenia	EU Member	Council of Europe		
49	Spain	EU Member	Council of Europe		
50	Sweden	EU Member	Council of Europe		
51	Switzerland		Council of Europe		
52	Tajikistan			Former USSR	
53	Turkey	Candidate EU Member	Council of Europe		
54	Turkmenistan			Former USSR	
55	Ukraine		Council of Europe		
56	U.K. (United Kingdom)	EU Member	Council of Europe		
57	U.K. (England)				See U.K.
58	U.K. (Northern Ireland)				See U.K.
59	U.K. (Scotland)				See U.K.
60	U.K. (Wales)				See U.K.
61	Uzbekistan			Former USSR	

Part 3 – Research at local, Dutch national and European level.

Chapter 22

Research at European level : 177

Table 5

Countries which have been included in this study and the official and national languages of these countries.					
There are a total of 61 countries and 51 official national languages (including languages which are official in some provinces only).					
Country	Official and national languages	Other spoken languages	Country	Official and national languages	Other spoken languages
1 Albania	Albanian (Shqip, Tosk (Toské) is the official dialect)	Shqip-Gheg dialect (Gegë), Greek, Italian	32 Liechtenstein	German	
2 Andorra	Catalan	French, Castilian, Portuguese	33 Lithuania	Lithuanian	Polish, Russian
3 Armenia	Armenian		34 Luxembourg	Luxembourgish, French, German	
4 Austria	German, Slovene, Croatian and Hungarian		35 Republic of Macedonia	Macedonian 68%, Albanian 25%	
5 Azerbaijan	Azerbaijani		36 Malta	Maltese (Malti)	English
6 Belarus (White Russian Rep.)	Belarusian, Russian		37 Moldavia	Moldovan (virtually same as Romanian language)	Russian, Gagauz (a Turkish dialect)
7 Belgium	Dutch 60%, French 40%, German less than 1%		38 Monaco	French	Monegasque, English, Italian,
8 Belgium (Dutch speaking)	Dutch/Flemish		39 Montenegro	Serbo-Croatian (Ijekavian dialect - official)	
9 Belgium (French speaking)	French		40 Netherlands	Dutch (Nederlands), Frisian	
10 Belgium (German speaking)	German		41 Northern Ireland (see UK)	English	
11 Bosnia & Herzegovina	Bosnian, Serbian, Croatian		42 Norway	Norwegian (nynorsk and bokmal)	small Sami- and Finnish-speaking minorities
12 Bulgaria	Bulgarian	Turkish	43 Poland	Polish (polski)	
13 Croatia	Croatian (hrvatski)		44 Portugal	Portuguese (português)	
14 Cyprus	Greek, Turkish, English		45 Romania	Romanian (romana)	Hungarian, German
15 Czech Republic	Czech (cestina)		46 Russian Federation	Russian	
16 Denmark	Danish (dansk)	Standard German	47 San Marino	Italian	
17 England (UK)	English		48 Scotland (see UK)	English	Scottish form of Gaelic (about 60,000 in Scotland)
18 Estonia	Estonian (eesti keel)	Russian, Ukrainian, Finnish	49 Serbia	Serbian 95%, Albanian 5%	
19 Finland	Finnish (suomi) 93.4%, Swedish 5.9%	small Sami- and Russian-speaking minorities	50 Slovakia	Slovak (slovensky jazyk)	Hungarian
20 France	French (français)		51 Slovenia	Slovenian (slovenski jezik)	
21 Republic of Georgia	Georgian, Abkhazian	English	52 Spain	Spanish (Castilian) 74%, Catalan 17%, Galician 7%, Basque 2%	N.B. Castilian is the official national languages, others are official regionally
22 Germany	German (Deutsch)		53 Sweden	Swedish (svenska)	small Sami- and Finnish-speaking minorities
23 Greece	Greek (elliniká, the Koine-Demotic version)	Turkish (Northern Greece)	54 Switzerland	German 63.7%, French 19.2%, Italian 7.6%, Romansch 0.6%	
24 Hungary	Hungarian (magyar)	German, Romanian	55 Tajikistan	Tajik	
25 Iceland	Icelandic	English, Nordic languages, German widely spoken.	56 Turkey	Turkish (türkçe)	Kurdish, Arabic, Armenian, Greek
26 Republic of Ireland	Irish (Gaeilge), English (generally used),		57 Turkmenistan	Turkmen	
27 Italy	Italian (italiano)		58 Ukraine	Ukrainian	
28 Kazakhstan	Kazakh		59 United Kingdom	English	Welsh (see Wales, Scottish form of Gaelic (see Scotland)
29 Kosovo	Serbo-Croatian, Albanian and Turkish		60 Uzbekistan	Uzbek	
30 Kyrgyzstan	Kyrgyz		61 Wales (see UK)	English	Welsh (by about 26% of population of Wales)
31 Latvia	Latvian (latviesu valoda)	Lithuanian, Russian			

Note Nr. 1: In some countries with large immigrant populations, many other languages are also spoken. Sometimes books in these languages are included in the collection of the school library and information centre. Some information about these languages of immigrant populations is included in the first ENSIL Survey.

Note Nr. 2: In countries which were formally part of the USSR, Russian is still an important language

Bron: http://europa.eu/abc/european_countries/eu_members/index_en.htm
http://www.nationsonline.org/neworld/european_languages.htm accessed on 7 September 2007.

Table 6

List of languages which are taken into account in this study	
1 Abkhazian	27 Italian (italiano)
2 Albanian (Shqip, Tosk (Toskë) is the official dialect)	28 Kazakh
3 Armenian	29 Kyrgyz
4 Azerbeidzjanian	30 Latvian (latviesu valoda)
5 Azeri	31 Lithuanian
6 Basque	32 Luxembourgish, French, German
7 Belarusian	33 Macedonian 68%, Albanian 25%
8 Bosnian	34 Maltese (Malti)
9 Bulgarian	35 Moldovan (virtually same as Romanian language),
10 Catalan	36 Norwegian (nynorsk and bokmal)
11 Croatian (hrvatski)	37 Polish (polski)
12 Czech (cestina)	38 Portuguese (português)
13 Danish (dansk)	39 Romanian (romana)
14 Dutch (Nederlands)/Flemish	40 Romansch
15 English	41 Russian
16 Estonian (eesti keel)	42 Serbian
17 Finnish (suomi)	43 Serbo-Croatian (Ijekavian dialect - official)
18 French (français)	44 Slovak (slovensky jazyk)
19 Frisian	45 Slovenian (slovenski jezik)
20 Galician	46 Spanish (Castilian)
21 Georgian,	47 Swedish (svenska)
22 German (Deutsch)	48 Tajik
23 Greek (elliniká, the Koine-Demotic version)	49 Turkish (türkçe)
24 Hungarian (magyar)	50 Turkmen
25 Icelandic	51 Ukrainian
26 Irish (Gaeilge),	52 Uzbek

Research format : European level In accordance with the Methodology, (Chapter 19, page 119), exploratory research included a review of the literature at European level. The literature was constantly reviewed from 1997 to 2008 (year) – see Figure 7, page 124.

Questionnaires and/or surveys A total of five different surveys were sent out during the European part of this study. Problems regarding the quality and reliability of information received via these questionnaires have sometimes been a cause for concern and have been mentioned, per country, in the individual country reports.

The First ENSIL survey (2004) was a quantitative survey with some open questions. It was sent in English to 16 European school library associations, by (registered) post and also by E-mail, (when a reliable E-mail address was available). The addresses of these associations were retrieved from ENSIL, by the IASL and also from the 4th edition of the IFLA World guide to Library, Archive, and Information Science Associations (published in 2000) - a new edition of this guide has since been published (Schweizer, 2005).

Some questions in the survey were based on earlier school library surveys, general library surveys and national surveys. An attempt was made to design a questionnaire which would provide data which would make comparisons possible between the facilities of the SLIC at the Kalsbeek College and the facilities in the school libraries in other European countries. The objective was to find out if these libraries have sufficient facilities (both quantitative and qualitative) to implement the KILM.

Since the review of the literature has shown that definitions of the school library and information centre (SLIC) and the work carried out by the school librarian and information specialist tend to vary from school to school and from country to country, clear international definitions needed to be found for use in this survey. The IFLA/UNESCO definitions (1999 and 2002)⁴¹ were used.

The first ENSIL questionnaire asked both quantitative and qualitative questions about:

The quantity and quality of the traditional collection : the number of books, documents, magazines and media (films, slides etc.) in the collection of the library, their age and condition, etc..

The quantity and quality of the digital collection: databases and other digital resources.
The facilities available in the school library, relating to the physical area of the library, desks where pupils could read and work and the availability of equipment such as copying machines, projectors etc.

The ICT facilities which were available in the school library – the number of PC's, the quality of these PC's including their age, memory capacity, the network, availability of Internet connections, printers (colour and black-and-white), scanners etc.

The special facilities which were available for the teaching staff.

The quality and training of the library staff.

Adequate budget.

The opening hours of the library for teachers and students.

[Results of the first ENSIL survey \(2004\)](#) The response to the survey was poor. Initially only 6 (school) library associations responded. Eventually 8 surveys were returned, after constant reminders had been sent⁴². A number of European school librarians and experts were interviewed, in order to gain insight into the reliability of the data and the reasons for the poor response. The following answers were received:

⁴¹ See Chapter 3, page 27.

⁴² See Table 7, page 181

Addresses. Questionnaires were sometimes sent to addresses (including E-mail addresses) which were outdated. At that time (2004) websites of some national (school) library associations were not always reliable or were unfairly filtered. In most cases, these problems have now been rectified (2009). Some websites are only available in national or local languages, making communication difficult.

Language: The survey was sent out in English. ENSIL members have confirmed that this sometimes caused a problem, especially in countries in Eastern Europe (page 173-4). The questionnaire would have been much more successful if it had been translated into national or official languages, but this was not possible due to translation costs.

Definitions: Answers needed to be based on the same definitions or interpretations. For example, school librarians in countries with greater financial resources, or from schools with a relatively high income may have excellent, expensive facilities. In countries which have less financial resources, school librarians are very proud of their simpler facilities and make optimal use of them. They also consider their facilities to be 'excellent'.

Differences in school systems: The terms 'secondary school' or 'high school' were used in the survey. These terms were not clarified at the beginning of the questionnaire and caused a problem. Different countries use these terms in different ways, as explained, per country, in British Council (2008), Eurydice (2007), Country Studies (2008) and Euroeducation.Net (2008).

Accurate quantitative and qualitative information and data were unavailable. Completed surveys were not always based on reliable statistics. Some associations stated that there had not been a recent national survey of school libraries, and for this reason they could not complete the survey. Other answers were sometimes based on personal opinions of the interviewee. Since the first survey was sent out in 2004, a number of (school) library associations have now reported that they have carried out (annual) national surveys and can provide accurate data.

National school library associations: In some countries, there are a number of different school library associations in different provinces or states, but no actual national school library association. This meant that information on a national level was unavailable.

Authority: Some recipients of the survey questioned their own authority to complete it. In some countries, school libraries come under the authority of library authorities, while in others, they come under the authority of educational authorities.

Politics: Some answers had political connotations; certain groups were worried about political repercussions if they showed the school libraries in their country in a 'bad light'.

From the answers which were received, it also became clear that other factors, which cannot be quantified and which are confirmed by the local and Dutch national research and in some cases by the review of the literature, play an important role in the evaluation of the 'facilities' of school libraries and information centres. These factors became apparent during interviews, as follows:

The attitude of the school leadership towards the importance of the school library. In 2005 two experts: Professor Carol C. Kuhlthau from Rutgers University, New Brunswick, New Jersey, U.S.A. and Mr. James Henri, University of Hong Kong, were interviewed regarding the role played by the school leadership in co-ordinating new concepts of learning skills, and the use of ICT within the school of the 21st century, in an international context. Both experts agreed that, unless there was optimal co-operation between the school leadership, teachers, the trained school librarian and information specialist, the ICT-co-ordinator and the systems manager, the school would not be able to operate successfully in the 21st century. The volumes edited by Oberg, Hay and Henri (1998), and by Henri and Asselin (2005) also confirm the essential co-ordinating role of the school leadership.

Co-operation throughout the school, between the teaching staff and the SLIC staff.

The position of the school librarian and information specialist within the school as a whole. It was important to find out whether or not this person is on an equal footing with the teaching staff, receiving equal working conditions and salary.

The professional quality of the school librarian and information specialist, including this person's up-to-date training.

The attitude and dedication of the school librarian and information specialist.

The attitude of pupils towards the school library and information centre Were pupils confident that they would receive help from the staff in the SLIC (Hay, 2006)?

Adequate funding and staffing of the school library and information centre.

The atmosphere within the SLIC itself.

These factors are often more important than the actual physical facilities (numbers which can be quantified). Nevertheless, it was important to find out more about qualitative factors relating to ICT facilities, educational technology, traditional and digital collections, etc.. How are these facilities specifically applied as educational tools. Are the ICT facilities reliable and up-to-date?

Table 7

Countries which returned information for the first ENSIL survey (2004)

Information received form the First ENSIL Survey, 2004.								
Names and addresses:								
Country	Netherlands	Belgium/Flanders	Norway	UK	Scotland	Croatia	Ukraine (recieved 13-12-2007)	Italy
Name Authority or Association	Meles Meles Schoolmediatheekdienst	VVBAD	Norsk bibliotekforening (NBF) avd. skole	The School Library Association	The Highland Council	National and University Library	Slavutich Association of School Librarians (SASL)	Università degli Studi "Roma Tre"
Postal address	Rijksweg 26, 6095 NC Baexem	Statiestraat 179, 2600 Antwerpen	c/o Nina Odegaard, Samisk Videregående skole, Postboks 113, 9735 KARASJOK	Unit 2 Lotmead Business Village, Lotmead Farm, Wanborough, Wiltshire	31A Harbour Road, Inverness IV1 1UA	Hrvatske bratske zajednice 4	1 Gvardijskoi divizi Str., letter box 2, Slavutich, 07100	via del Castro Pretorio 20, I - 00185 ROMA
Contact person	Lourense H. Das	Bruno Vermeeren	Nina Odegaard	Alison I Allan	Stephanie Hoyle	Veronika Čelić - Tica	Tatyana Yarovaya	Luisa Marquardt
E-mail	info@meles.nl	bruno.vermeeren@vbad.be	nina.odegaard@sami.vgs.no	Alison.ALLAN@sla.org.uk	Stephanie.Hoyle@highland.gov.uk	vcelic@nsk.hr	librar@bigmir.net	marquardt@uniroma3.it / marquardt@iol.it
First language	Dutch	Dutch	Norwegian	English	English	Croatian	Ukrainian	Italian
Population	16275200	6000000	6000000	60000000	5000000	4000000	47000000	57000000

Note: Information from the Ukraine was received in 2007. All other information was received in 2004-2005.

Second ENSIL survey (2005) In March 2005, because of a poor return of the original questionnaire and in an attempt to find more reliable information, a second ENSIL survey was sent as a registered letter and/or and E-mail, in English, to National Libraries in 51 European countries. Its purpose was to verify addresses of School Library Associations and to ask for further information about school libraries in each specific country. Once again, language problems and difficulties with digital communication were apparent. Most digital communication problems have now been resolved, however language still causes problems in communications with some national libraries.

National libraries were asked to provide information on the following topics: the availability of school libraries in each country, the availability of trained school librarians and the actual training of these people in that specific country, information about the national school library association, including accurate addresses. Fifteen National Libraries returned the questionnaire in 2005 (see Table 8 below), (approximately 35% of the 51 National Libraries which received the survey). The language of the survey, English, did not seem to be a problem for those who returned the questionnaire. The 2nd ENSIL survey did not provide any information about the 'silent' school libraries, with the exception of the Czech Republic.

Later, when information which was received from National Libraries was compared with information from Ministries of Education or other educational authorities, it was obvious that there were sometimes statistical differences in the data which were supplied. There were also differences in definitions, in particular the definition of a 'school library'. Table 8 (below) gives details of the National Libraries which supplied information to the 2nd ENSIL survey, and also contains some data which was received via the IFLA/FAIFE World Report 2007 (IFLA/FAIFE, 2007, Portal).

Table 8

Countries in this study that responded to the IFLA/FAIFE World Report 2007

Countries which returned information to the IFLA/FAIFE World Report 2007.				
Country	Returned IFLA/FAIFE World Report 2007.	Returned information about school libraries to this report - Nr. of school libraries	Notes	Returned information about school libraries to ENSIL survey 2005
1 Albania	Yes	1700		
2 Andorra	Yes	25		Yes
3 Armenia		1353	Provided in 2000	
4 Austria	Yes	Unknown	See note 2.	Yes
5 Azerbaijan		Report not returned		
6 Belarus		Report not returned		
7 Belgium	Yes	Report not returned		
8 Belgium (Dutch speaking)		No information provided	See note 2.	
9 Belgium (French speaking)		Unknown		
10 Belgium (German speaking)		8	Secondary school libraries - information received from another source.	
11 Bosnia & Herzegovina	Yes	204		
12 Bulgaria	Yes	1465 (estimate 1), 2599 (estimate 2)		
13 Croatia	Yes	1264		
14 Cyprus	Yes	138		Yes
15 Czech Republic	Yes	4151		Yes
16 Denmark	Yes	1605	Actual number not supplied Different figure supplied from other source - see Appendix III	
17 Estonia	Yes	451	See note 2.	Yes
18 Finland	Yes	No information provided		
19 France		Report not returned		
20 Republic of Georgia		Report not returned		
21 Germany	Yes	No information provided	See note 2.	Yes
22 Greece		Report not returned		Yes
23 Hungary	Yes	4347		Yes
24 Iceland	Yes	192	Actual number not supplied	
25 Republic of Ireland	Yes	No information provided	See note 2.	
26 Italy	Yes	1800		
27 Kazakhstan	Yes	6852		
28 Kosovo		Report not returned	See Appendix III	
29 Kyrgyzstan		2133		
30 Latvia	Yes	1099		
31 Liechtenstein		Report not returned		
32 Lithuania	Yes	1312		
33 Luxembourg	Yes	36	High school and technical school libraries	Yes
34 Republic of Macedonia				
35 Malta	Yes	Estimated secondary school libraries 65	No data on primary schools	
36 Moldavia	Yes	1433		
37 Monaco	Yes	3		
38 Montenegro	Yes	174 primary school libraries, 47 secondary school libraries		
39 Netherlands		Report not returned		Yes
40 Norway	Yes	3196		
41 Poland	Yes	15200		Yes
42 Portugal		2063	See Appendix III.	Yes
43 Romania		9389		
44 Russian Federation	Yes	66000		
45 San Marino	Yes	5		
46 Serbia	Yes	1700		Yes
47 Slovakia	Yes	5483		
48 Slovenia	Yes	648		
49 Spain		Report not returned		
50 Sweden	Yes	4300		Yes
51 Switzerland	Yes	47 libraries of specialised high schools	Exact figures are not available.	
52 Tajikistan		Report not returned		
53 Turkey	Yes	19684		Yes
54 Turkmenistan		Report not returned		
55 Ukraine	Yes	20600		
56 U.K. (United Kingdom)	Yes	2058 secondary school libraries		
57 U.K. (England)		Report not returned		
58 U.K. (Northern Ireland)		Report not returned		
59 U.K. (Scotland)		Report not returned		
60 U.K. (Wales)		Report not returned		
61 Uzbekistan		9500		

Note 1. This report IFLA/FAIFE World Report 2007 specifically requested information about school libraries.

Note 2: Some countries sent information for the report but no information was provided about school libraries.

Other questionnaires During 2007 and 2008, a number of simple questions were sent via E-mails to ENSIL members, to (national) (school) library associations and to academics, requesting specific information about the following:

- The training of school librarians at tertiary level in each country;
- Information about recent surveys of school libraries in each country;
- The status or existence of a statutory school library law in each country;
- A job description at national level which describes the work and conditions of the school librarian.

Answers to the first three questions are contained in Table 9a, page 185 and Table 9b, page 186 below. Information which was received about job descriptions is recorded in the individual country reports.

The researcher is very grateful to all those people and institutions who provided both support and information for the ENSIL surveys and wishes to express her thanks for their continuing support.

Table 9a

National school library law, national survey of school libraries and training of school (teacher) librarians. Countries A – K

Country	Returned some of the ENSIL surveys - See Appendix III	National school library law	National survey of school libraries	Training of teacher librarians
1 Albania	No	Yes	Unknown	No
2 Andorra	No	Unknown	Unknown	Unknown
3 Armenia	No	Unknown	Unknown	Unknown
4 Austria	Yes	No	Unknown	See para 12, Appendix III, Austria
5 Azerbaijan	No	Unknown	Unknown	See para 13, Appendix III, Azerbaijan
6 Belarus	No	Unknown	Unknown	Unknown
7 Belgium	Separate info. per Community	Separate info. per community	Unknown	See para 11, Appendix III, Belgium (entire country)
8 Belgium (Flemish /Dutch speaking)	Yes	No	No	See para 12, Appendix III, Belgium (Flemish speaking)
9 Belgium (French speaking)	No	Unknown	Unknown	Unknown
10 Belgium (German speaking)	Yes	No	No	See para 11, Appendix III, Belgium (German speaking)
11 Bosnia & Herzegovina	No	Unknown	Unknown	Unknown
12 Bulgaria	No	No	Unknown	Unknown
13 Croatia	Yes	Yes	Yes	Unknown
14 Cyprus	No	Unknown	Unknown	Librarians are usually trained outside Cyprus, usually in Greece. No specific information about school librarians was available.
15 Czech Republic	Yes	See final conclusions, Appendix III, Czech Rep.	No	See para 11c, Appendix III, Czech Rep.
16 Denmark	Yes	Yes	Unknown	See para 12, Appendix III, Denmark.
17 Estonia	Yes	Yes	Yes	See para 12 & 13, Appendix III, Estonia.
18 Finland	Yes	No	Unknown	Unclear
19 France	No	Yes - in secondary schools	Unknown	Unknown
20 Rep. of Georgia	No	Unknown	Unknown	Unknown
21 Germany	No info. at national level	No	No	In some federal states – short training but not at academic level. – see Appendix III.
22 Greece	No	No	Unknown	Unknown
23 Hungary	No	Yes	Unknown	See para 12a & 12d, Appendix III, Hungary.
24 Iceland	No	Yes	Unknown	Unknown
25 Rep. of Ireland	Yes	No	Unknown	See para 12, Appendix III, Rep. of Ireland.
26 Italy	Yes	No - a Bill has been prepared	Unknown	Unclear. Training programmes do exist, also on-line programmes, but more information is needed.
27 Kazachstan	Yes	Unknown	Unknown	See para 12b, Appendix III, Kazachstan.
28 Kosovo	No	Unknown	Unknown	Unknown
29 Kyrgyzstan	Yes	Unknown	No	See para 10e, Appendix III, Kyrgyzstan.

Table 9b

National school library law, national survey of school libraries and training of school (teacher) librarians. Countries L – Z

Country	Returned some of the ENSIL surveys - See Appendix III	National school library law	National survey of school libraries	Training of teacher librarians
30 Latvia	No	Unclear	Unknown	See para 11, Appendix III, Latvia.
31 Liechtenstein	No	Unknown	Unknown	Unknown
32 Lithuania	Yes	Unclear	Yes	See para 11, Appendix III, Lithuania.
33 Luxembourg	No	Unknown	Unknown	No. See para 10b, Appendix III, Luxembourg.
34 Rep. of Macedonia	No	Unknown	Unknown	Unknown
35 Malta	Yes	No	Unknown	See para 11, Appendix III, Malta.
36 Moldova	No	Unknown	Unknown	Unknown. See para 11b, Appendix III, Moldova.
37 Monaco	No	Unknown	Unknown	Unknown
38 Montenegro	No	Unknown	Unknown	Unknown
39 Netherlands	Yes	No	Secondary school libraries only	See Chapter 5 of this dissertation
40 Norway	Yes	Yes	Yes	See para 11, Appendix III, Norway.
41 Poland	No	Unknown	Unknown	Unknown
42 Portugal	Yes	National guidelines / see para 11b, Appendix III, Portugal	Unclear	Unclear
43 Romania	Yes	Yes	Unknown	Yes
44 Russia	No	Unknown	Unknown	Some info, is provided in para 11, Appendix III, Russia
45 San Marino	No	Unknown	Unknown	Unknown
46 Serbia	No	Yes	Unknown	See para 12a, Appendix III, Serbia.
47 Slovakia	Yes	Yes, guidelines	Yes - annually	See para 12e, Appendix III, Slovakia.
48 Slovenia	Yes	Yes	Unknown	Yes
49 Spain	No	Yes - 2006	Unknown	See para 11b, Appendix III, Spain.
50 Sweden	Yes	No	No	See para 11b, Appendix III, Sweden.
51 Switzerland	No	No	Unknown	Unknown
52 Tajikistan	No	Unknown	Unknown	See para 11, Appendix III, Tajikistan
53 Turkey	No	Yes	Unknown	Unclear
54 Turkmenistan	No	Unknown	Unknown	Unknown
55 Ukraine	Yes	Unknown	No	Unclear
56 United Kingdom (U.K.)	Yes	See U.K. (England)	See U.K. (England)	See U.K. (England)
57 U.K. England	No	No	Partial survey-not all schools took part.	See para 11, Appendix III, U.K. (England)
58 U.K. Northern Ireland	No	No separate information	No separate information	No separate information
59 U.K. Scotland	Yes	Yes	No separate information	No separate information
60 U.K. Wales	No	No separate information	information	No separate information
61 Uzbekistan	No	Yes	Unknown	See para 11a, Appendix III, Uzbekistan

Training of school librarians and information specialists (teacher librarians) In 2005, an E-mail was sent to universities which claimed to have a programme at university level for the training of school librarians, using a number of different lists and directories: Schniederjürgen, (2007), Wilson, (2007) and the European Association for Library and Information Education and Research (EUCLID 2005) were used for this purpose. Unfortunately, in 2005, these address lists often proved to be outdated or unreliable. Many universities did not reply. When a reply was received, it often indicated that the university had a general ICT (information management) programme and that, in the opinion of the university, graduates who obtained a degree in this programme were qualified to work as school librarians, even though these graduates would have received no pedagogical training. Others stated that there was no interest

in university level training for school librarians, because of the poor employment prospects after graduation. The low position or status of the average school librarian within the school and the low salary were often given as reasons. Any reliable information which was received about the training of school librarians has been included in the individual country reports and can also be found Table 9a and Table 9b (above).

Design of a paradigmatic model : a report on each individual country in this survey was prepared using a paradigmatic model. As explained in the methodology (Chapter 19, page 121), the purpose of the paradigmatic model was to combine relevant information which was available for (most of the) individual countries, so that comparisons and evaluations could take place at European level. Also, the decision to make use of a paradigmatic model was influenced by the publication of updated documents and renewal or updates of certain (international) databases, as follows:

The Empirica study: Korte and Hüsing (2006) gives information about the introduction of ICT into schools in Europe, including costs and usage. However, it would appear that some important qualitative questions which are relevant to the introduction of ICT into the school and the way it is used, and its value as an educational tool, have not been adequately raised in this study. The Empirica study researchers were contacted by E-mail and asked to clarify the definitions for the 'school library' which were used in this study. They replied that definitions had been left to the discretion of the school leadership.

A benchmarking study published by the European Commission, Audiovisual and Media Policies (2007), provided useful information concerning Media Literacy in Europe.

The IFLA/FAIFE World Report 2007(IFLA/FAIFE, 2007, Portal), which, for the first time recorded information, per country, about school libraries.

Renewal of the Eurydice Database (Eurydice, 2007). This particular database provides a descriptive analysis, studies and indicators about national education systems for a large number of the countries in this survey. It very clearly shows how educational systems vary extensively from country to country, within Europe. Each country submits data in a specific format (in most cases on an annual basis), making comparison between countries possible.

Databases from the World Bank, UNDP, UNICEF and UNESCO, which are accessible via the internet, now make it possible to retrieve a great deal of reliable international data per country upon demand.

Computer-Mediated Communication (CMC) ⁴³ has also been used effectively to provide data for the individual country reports.

By using the information received from the review of the literature, from the ENSIL surveys and questionnaires and by using the facilities which are described above, it became possible to ask the same set of specific questions about each country in this survey and to place the answers in a table, per country. Analysis of the data was then possible. The individual country reports have been made for the purpose of comparison; they were in no way intended as criticism of decisions which have been made in different countries.

A final table (Table 10 below), appearing at the end of each individual country report, contains answers to the questions asked during the application of the paradigmatic model. It was designed as follows:

Table 10
Questions asked in the paradigmatic model (Final table)

Specific Conclusions - Name of Country		Information received
1	Population ranking:	
2	GNI ranking per capita	
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	
4	Adult literacy	
5	Compulsory education	
6	Primary school and secondary school enrolment	
7	School attendance of children from minority groups	
8	PISA score	
9	PIRLS score	
10	Statistics of use of ICT in schools	
11	ICT in the school library 2006	
12	ICT policy in schools	
13	Media literacy	
14	Libraries – general information	
15	LibEcon Millennium Study 2000	
16	School libraries and information centres	
16a	Returned ENSIL surveys	
16b	Number of school libraries	
16c	National school library law	
16d	National school library association	
16e	National survey of school libraries	
16f	Training of teacher librarians	
16g	School libraries with internet access to users	

All the data for each individual country is based on references, which are clarified in Tables 10a (page 189) and Table 10b (page 190).

⁴³ See Chapter 19, page 119.

Table 10a.

References which are used to answer questions 1-15 in Table 10 for each individual country.

Specific conclusions per country		Information received from one or more of the following resources
1	Population ranking	CIA World Factbook 2007 and 2008, Internet World Stats 2008, World Gazetteer 2007. Summarised in Table 11.
2	GNI ranking per capita	World Bank 2008a and 2008b. Summarised in Table 13.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	CIA World Factbook 2007 and 2008, UNESCO, 2007 and 2008. EUROSTAT 2005 and 2006, European Commission 2006. Summarised in Table 14 and 15.
4	Adult literacy	UNICEF 2004, CIA World Factbook, 2007, IFLA/FAIFE World Report 2007, UNDP 2008b. Summarised in Table 25.
5	Compulsory education	World Bank 2008a, World Bank 2005b, UNESCO 2008. Summarised in Table 17.
6	Primary school and secondary school enrolment	UNICEF 2004, World Bank 2008a, UNESCO 2008, Bayou, Gouel and Sauvageot 2005.
7	School attendance of children from minority groups	COE 2008 (Last available report), Amnesty International 2007 (last available report).
8	PISA score	OECD (Organisation for Economic Co-operation and development), 2006
9	PIRLS score	PIRLS 2007, IEA (International Association of Educational Achievement) 2006.
10	Statistics of use of ICT in schools	Korte & Hüsing 2006. Summarised in Table 18.
11	ICT in the school library 2006	Korte & Hüsing 2006.
12	ICT policy in schools	European Schoolnet 2008, per individual country.
13	Media literacy	European Commission 2007
14	Libraries – general information	IFLA/FAIFE World Report 2000 and 2007
15	LibEcon Millennium Study 2000, Singh study 1993	Singh 1993, LibEcon, 2000. Summarised in Table 26.

Table 10b.

References which are used to answer specific questions (16a – 16g) about school libraries, and provide information on education and educational policy in each individual country

Specific conclusions per country Specific information about School Libraries		Information received from one or more of the following resources
16a	Returned ENSIL surveys	See Chapter 22, p. 200 - 211 of main document
16b	Number of school libraries	Information returned to ENSIL surveys plus IFLA/FAIFE World Report 2007. Summarised in Table 20 and Table 24
16c	National school library law	Information returned to ENSIL surveys
16d	National school library association	Schniederjürgen (Editor, 2007). IASL 2008 (Portal) plus information returned to ENSIL surveys
16e	National survey of school libraries	Information returned to ENSIL surveys
16f	Training of teacher librarians	Information returned to ENSIL surveys plus EUROEDUCATION.Net 2008, EURYDICE database 2008
16g	School libraries with internet access to users	IFLA/FAIFE World Report 2007
	Other information	
	General (social) information about each country, relative to this study	CIA World Factbook 2007 and 2008, EUROSTAT 2005 and 2006, Internet World Stats 2008, World Gazetteer 2007
	General information on education and educational policy in each country	British Council 2008 (last available report), Eurydice 2008 (last available report), Country Studies 2008 (last available report), EUROEDUCATION.Net 2008 (last available report).

Application of the paradigmatic model and analysis of the data Information and data were collected using Table 10 so that specific conclusions could be reached for each individual country. Each individual country report contains as much reliable data as could be located in each of the areas mentioned in the model, however this was not always a simple matter. During the period of the research, wars have taken place, large numbers of people have left their country for various reasons and ‘new’ countries have come into existence (Arnové and Torres, 2003 (p. 1). Although large international databanks, surveys and reports often provided valuable information on many countries, data was not always available for each of the 61 countries in this survey. Sometimes, one particular country took part in one particular survey or test, but not in another. Also, for example, information to answer a specific question was sometimes available from one particular year for a large number of countries in the survey. Other countries had provided no information for that specific year. Very recent, reliable information was also difficult to find.

Using the paradigmatic model, it became possible to provide very simple European rankings which have been used in Graphs 1 – 7 (listed on page 14) . Using these graphs, analysis of the data can take place and conclusions can be drawn.

With regard to international testing of the quality of education, some countries in the survey did not take part in any of the tests; others took part in only one test, in one specific year. This means that a comparison of the data is difficult. Nevertheless, it has been possible to draw certain conclusions from the information which was collected collated using Table 10, for each individual country. In order to make the data easier to analyse, a simple system of colour coding, using 7 groups (related to the GNI World Rank) has been used in a number of the graphs which appear below), as explained in Table 11 below.

Table 11

Colour coding : countries in this study in GNI (Gross National Income) per capita ranking

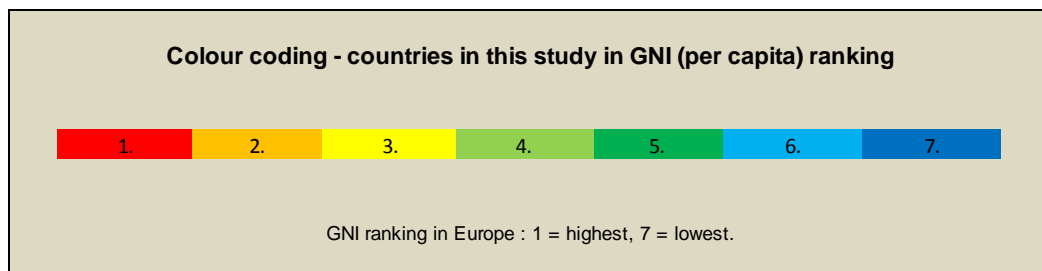


Table 11 explains the simple colour coding which has been used to place the 61 countries in order of their GNI (Gross National Income) per capita.

The population of the country and the land area of the countries in this survey are very diverse. The total population of some entire countries is the same as the population of one large city in another. This thesis queries whether or not very small and relatively small countries, with a small population, may have an easier task in setting up and maintaining a quality school library programme than countries with a large population, spread over a large area. Table 12 below ranks each country in this survey by the size of its population.

Table 12

The population of each country in this study

Country	Population	Rank in Europe	Country	Population	Rank in Europe
Russian Federation	140,752,448	1	Finland	5,240,677	30
Germany	82,222,332	2	Turkmenistan	5,181,524	31
Turkey	71,797,945	3	Norway	4,635,522	32
France	63,965,876	4	Georgia	4,650,698	33
United Kingdom (entire country)	60,806,689	5	Bosnia & Herzegovina	4,553,693	34
Italy	58,049,281	6	Croatia	4,485,782	35
Ukraine	46,035,085	7	Moldova	4,328,927	36
Spain	40,454,131	8	Ireland	4,132,549	37
Poland	38,512,241	9	Albania	3,631,097	38
Uzbekistan	28,229,544	10	Lithuania	3,568,707	39
Romania	22,254,118	11	Macedonia	2,061,670	40
Netherlands	16,599,385	12	Armenia	2,982,047	41
Kazakhstan	15,375,111	13	Latvia	2,251,592	42
Greece	10,699,724	14	Slovenia	2,006,798	43
Portugal	10,643,112	15	Estonia	1,312,354	44
Belgium (entire country)	10,391,957	16	Cyprus	791,754	45
Czech Republic	10,213,900	17	Montenegro	686,387	46
Serbia	10,162,420	18	Luxembourg	481,64	47
Hungary	9,926,952	19	Malta	402,606	48
Belarus	9,687,088	20	Iceland	303,705	49
Sweden	9,030,542	21	Andorra	71,946	50
Austria	8,191,638	22	Liechtenstein	34,328	51
Azerbaijan	8,184,219	23	Monaco	32,563	52
Switzerland	7,562,166	24	San Marino	29,657	53
Bulgaria	7,293,380	25			
Tajikstan	7,200,573	26			
Denmark	5,471,002	27			
Slovakia	5,453,007	28			
Krygystan	5,357,458	29			

Excluding separate countries in the United Kingdom and language communities in Belgium.

Unknown in Sept. 2008: Kosovo

[A comparison of the GNI \(Gross National Income\) per capita in each country](#)

Data were selected (World Bank, 2008a and 2008b) as follows: GNI (Gross National Income) per capita July 2007 (in US dollars), Atlas method ; purchasing power parity (PPP) (international dollars); Percentage of population living on under 2 dollars (PPP) per day; percentage of the population living below the national poverty line (UNDP, 2008b). Table 13 shows the actual GNI ranking per capita.

[Table 13](#)

[The GNI \(Gross National Income\) per capita in each country in this study](#)

Country	World Rank GNI *	World Rank PPP **	Simple European Ranking	Country	World Rank GNI *	World Rank PPP **	Simple European Ranking
Austria	20	17	13	Romania	83	84	34
Belgium	21	25	14	Russia	78	68	33
Denmark	7	19	5	Turkey	77	77	32
Finland	17	24	11	Belarus	102	86	39
France	24	33	16	Bosnia & Herzegovina	108	101	40
Germany	23	32	15	Bulgaria	99	82	38
Iceland	8	31	6	Kazachstan	94	92	36
Republic of Ireland	12	18	7	Montenegro	93	89	35
Italy	30	38	17	Serbia	95	90	37
Liechtenstein	1	?	1	Albania	115	110	42
Luxembourg	4	1	3	Armenia	123	110	43
Monaco	?	?	?	Azerbaijan	126	111	44
Netherlands	16	16	10	Republic of Georgia	135	129	49
Norway	3	2	2	Republic of Macedonia	111	97	41
San Marino	13	15	8	Ukraine	126	107	45
Sweden	14	22	9	Kyrgyzstan	175	163	49
Switzerland	6	11	4	Moldova	152	149	47
United Kingdom (UK)	19	28	12	Tajikistan	187	172	50
Cyprus	41	43	20	Turkmenistan	?	135	?
Greece	35	35	18	Uzbekistan	171	170	48
Malta	53	54	23				
Portugal	51	58	22				
Slovenia	46	42	21				
Spain	36	36	19				
Croatia	66	66	28				
Czech Republic	56	53	24				
Estonia	59	60	25				
Hungary	64	62	26				
Latvia	68	64	29				
Lithuania	69	63	30				
Poland	70	65	31				
Slovakia	64	60	27				

* GNI per capita July 2008 (in US dollars), or last available figure, Atlas method.
 ** Purchasing power parity (PPP) (International dollars)

No data available for:
 Separate language communities of Belgium
 Separate countries within the U.K.
 Kosovo
 Liechtenstein
 Monaco
 Montenegro
 San Marino
 Turkmenistan

GNI ranking in Europe: 1 = highest, 7 = lowest.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

This data was recorded for the following reasons. It goes without saying that education costs money and that countries with a low GNI per capita have less to spend on education. This statement is verified by many different aid organisations, especially UNESCO (2006a and 2009a). The introduction of ICT into the schools and the availability of expensive ICT equipment depends upon the funds which are available for this purpose.

The data in Table 13 were recorded before the worldwide financial crisis which began in 2008. As a result of the crisis, less funds are available for education, making it even more essential that governments spend available money for education wisely. This research shows that governments and Ministries of Education should first establish clear educational criteria or strategy before spending the available funds. The main priority should always be that the expenditure increases educational quality and academic achievement.

Expenditure on education Table 14 shows the most recent information regarding to the amount of money which was spent on Education, per individual country.

Table 14

Percentage of GDP (Gross Domestic Product) per capita spent on education (last available figure)

Rank	Country	% of GDP spent on education	Simple European ranking GNI per capita	Rank	Country	% of GDP spent on education	Simple European ranking GNI per capita
1	Uzbekistan	9,4% in 1991	48	34	Spain	4,2% in 2005	19
2	Denmark	8,3% in 2005	5	35	Turkey	4,0% in 2004	32
3	Iceland	7,6% in 2004	6	36	Turkmenistan	3,9% in 1991	?
4	Moldova	7,6% in 2006	47	37	Slovakia	3,9% in 2005	27
5	Norway	7,2% in 2005	2	38	Russia	3,8% in 2005	33
6	Sweden	7,1% in 2005	9	39	Romania	3,5% in 2005	34
7	Finland	6,4% in 2005	11	40	Republic of Macedonia	3,5% in 2002	41
8	Cyprus	6,3% in 2004	20	41	Luxembourg	3,4% in 1999	3
9	Ukraine	6,3% in 2006	45	42	Tajikistan	3,4% in 2006	50
10	Belarus	6,1% in 2006	39	43	Armenia	3,2% in 2001	43
11	Belgium	6,0% in 2004	14	44	Republic of Georgia	3,1% in 2006	49
12	Slovenia	6,0% in 2005	21	45	Albania	2,9% in 2002	42
13	Switzerland	5,8% in 2005	4	46	Andorra	2,3% in 2006	?
14	France	5,7% in 2005	16	47	Kazakhstan	2,3% in 2005	36
15	United Kingdom (UK)	5,6% in 2005	12	48	Azerbaijan	2,1% in 2006	44
16	Hungary	5,5% in 2005	26		Unknown		
17	Portugal	5,5% in 2005	22	49	Bosnia & Herzegovina		
18	Poland	5,5% in 2005	31	50	Kosovo		
19	Austria	5,4% in 2005	13	51	Liechtenstein		
20	Netherlands	5,3% in 2005	10	52	Montenegro		
21	Malta	5,1% in 2004	23	53	San Marino		
22	Latvia	5,1% in 2004	29	54	Serbia		
23	Estonia	5,1% in 2004	25		NA		
24	Lithuania	5,0% in 2005	30	55	Belgium-Fr.		
25	Kyrgyzstan	4,9% in 2005	48	56	Belgium-Nl.		
26	Republic of Ireland	4,7% in 2005	7	57	Belgium-De		
27	Germany	4,6% in 2004	15	58	UK - England		
28	Italy	4,5% in 2005	17	59	UK - Scotland		
29	Croatia	4,5% in 2004	28	60	UK-Northern Ireland		
30	Bulgaria	4,5% in 2005	38	61	UK - Wales		
31	Greece	4,4% in 2005	18				
32	Monaco	4,4% in 2004	?				
33	Czech Republic	4,4% in 2004	24				

GNI ranking in Europe: 1 = highest, 7 = low est.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Note: The % of GDP spent on education was available for most countries (World Bank, 2008b); the % of GNI spent on education was unavailable.

Each country was given a 'European rank order of Education Expenses', using the last available information. Table 15 (below) compares the amount of money spent on education in each of the countries in this study in 2001 and 2008 (dependent upon available information). This was used as an indication of the importance which countries placed on education and their willingness to spend money on education.

Tables 14 and 15 describe a simplified view of this complex situation, however it is interesting to see if there are perhaps any exceptional cases.

Table 15

Comparison in rank : % of GDP spent on education by countries in this survey in 2008 and 2001

Figures published in 2008		Figures published in 2001	
Calculated on last available figures			
2008 Rank	Country	2001 Rank	Country
% GDP on education in Europe		% GDP on education in Europe	
1	Uzbekistan	1	Denmark
2	Denmark	2	Sweden
3	Iceland	3	Norway
4	Moldova	4	Iceland
5	Norway	5	Finland
6	Sweden	6	Cyprus
7	Finland	7	Portugal
8	Cyprus	8	Lithuania
9	Ukraine	9	Austria
10	Belarus	10	Estonia
11	Belgium	11	France
12	Slovenia	12	Poland
13	Switzerland	13	Latvia
14	France	14	Hungary
15	United Kingdom	15	Ireland
16	Hungary	16	Italy
17	Portugal	16	Netherlands
18	Poland	18	Malta
19	Austria	19	United Kingdom
20	Netherlands	20	Germany
21	Malta	21	Spain
22	Latvia	22	Czech Republic
23	Estonia	23	Luxembourg
24	Lithuania	24	Slovakia
25	Kyrgyzstan	25	Greece
26	Ireland	26	Bulgaria
27	Germany	27	Romania
28	Italy	Unknown	Albania
29	Croatia	Unknown	Andorra
30	Bulgaria	Unknown	Armenia
31	Greece	Unknown	Azerbaijan
32	Monaco	Unknown	Belarus
33	Czech Republic	Unknown	Bosnia & Herzegovina
34	Spain	Unknown	Croatia
35	Turkey	Unknown	Georgia
36	Turkmenistan	Unknown	Liechtenstein
37	Slovakia	Unknown	Kazakhstan
38	Russian Federation	Unknown	Krygystan
39	Romania	Unknown	Liechtenstein
40	Macedonia	Unknown	Macedonia
41	Luxembourg	Unknown	Moldova
42	Tajikistan	Unknown	Monaco
43	Armenia	Unknown	Montenegro
44	Georgia	Unknown	Russian Federation
45	Albania	Unknown	San Marino
46	Andorra	Unknown	Serbia
47	Kazakhstan	Unknown	Slovenia
48	Azerbaijan	Unknown	Switzerland
Unknown	Liechtenstein	Unknown	Tajikistan
Unknown	Montenegro	Unknown	Turkey
Unknown	San Marino	Unknown	Turkmenistan
Unknown	Serbia	Unknown	Ukraine
Unknown	Kosovo	Unknown	Uzbekistan
Unknown	Bosnia & Herzegovina		

Note: Information shown for Uzbekistan possibly refers to a figure published by the World Bank in 1991.

Extra information relevant to Table 15:

Reference 1: CIA The World Factbook.
<https://www.cia.gov/library/publications/the-world-factbook/fields/2206.html>

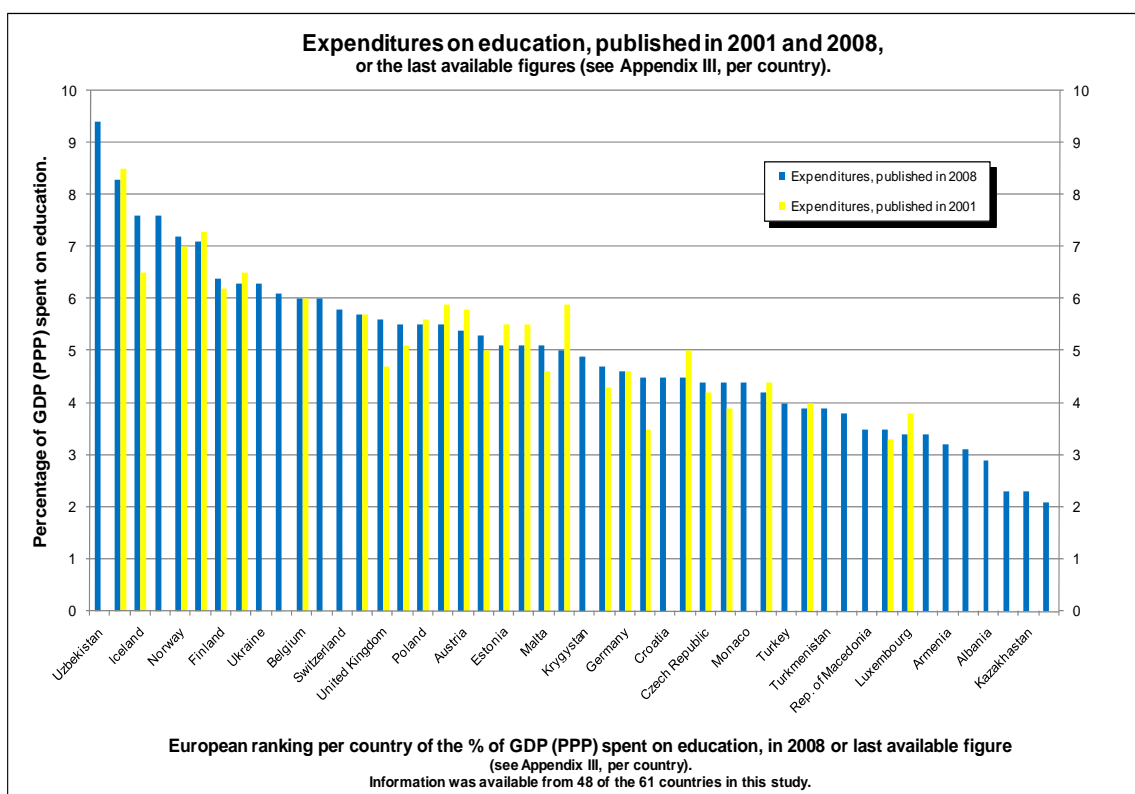
Reference 2:
Figure D1: Total public expenditure on education as % of GDP and GNI, 2002
Key data on Education in Europe 2005, European Commission, Eurostat, UOE and National Accounts 2005
http://eacea.ec.europa.eu/ressources/eurydice/pdf_images/052ENXX010D01x0101f.pdf

Table 15 (above) shows a list of the countries which provided information about the percentage of GDP spent on education in either 2001, 2008 or both. (Not all countries in this survey provided information). Graph 1, page 199, gives an indication of the differences in educational expenditure, in European countries in 2001 and 2008. Because of the large number of countries involved, it was not possible to include the names of all countries on the graph, however they can be seen on Table 15 above.

The graph shows there have been relatively slight fluctuations in educational expenditures between 2001 and 2008 in some countries in this survey. However it is possible that the way in which money is spent on education has 'shifted'⁴⁴. This graph does not take into account the effects of the worldwide financial crisis which began in 2008.

⁴⁴ See page 238.

Graph 1



Different kinds of schools (government funded, privately funded and international schools) receive different amounts of government funding. The low amount of government funding (or lack of government funding) for school libraries, at local, state or national level, were often mentioned in interviews as a reason for a lack of quality. Also, in a number of instances, individual country reports mention that different educational organisations (involved in the educational process) and library organisation (involved in the library process) are, in fact, competing for government funding for work which they carry out for school libraries. This competitive aspect may have a detrimental effect on school libraries.

[A description of the school system \(in so far as it is relevant to this study\)](#)

Information relating to both primary and secondary education was collected. A simple attempt was made to gauge the quality of the school system in each country, relative to the academic achievement of pupils. School systems in Europe are extremely diverse and differ from one country to the next and sometimes from one province (or state) to the next. A question which may seem relevant in one country, is completely irrelevant in another. This diversity makes the European educational environment very complex. The Eurydice database (Eurydice, 2007) provides a descriptive analysis, studies and

indicators related to national education systems throughout Europe. The information in the database is provided by the government of each individual country in a prescribed format, thus making comparisons between countries possible. However some countries in this present study, especially some of the former members of the U.S.S.R, did not submit information to the Eurydice database. When information about school systems was unavailable in Eurydice, a search for reliable information supplied by international organisations such as UNICEF, UNESCO, UNDP, the World Bank, by the Ministries of Education of some national governments and also in other international educational databases was carried out. This data, obtained from different resources (explained in Table 10a, page 189 and Table 10b, page 190, has also been recorded in the individual country reports.

The final table (using the format described in Table 10, page 188) at the end of each country report makes it possible to compare school systems and school libraries from one country to the next. It includes data about:

Adult literacy, as one indication of educational achievement in each country. Sometimes definitions of adult literacy vary slightly from country to country (*CIA World Factbook*, 2007).

Primary school and secondary school enrolment ratios (NER – National Enrolment Rates), when this information was available (*World Bank*, 2008a). These ratios are influenced by many different factors and are presented in this study purely as a simple indication of educational quality.

Training and qualifications of teachers and of the school leadership. This data was collected as a indication of educational quality. A review of the Eurydice database (2007) for each individual country shows that, in some countries, the qualifications of teachers seem to have decreased. There are various reasons for this, including low teaching salaries, poor conditions within the school, social conditions and lack of prestige (Edam. 1968) and (Duijn, 2007), and as explained in Chapter 11, page 83. Also it is becoming apparent that gender issues play a role in the present day teaching profession, since a large percentage of teachers are now women, who work part-time (Chapter 10, page 73). The Eurydice database does not record the qualifications of the school leadership. Duijn (2007) has also commented on this subject. Governments have placed great importance on the management skills of school leadership however present indications are that some may have inadequate academic or educational qualifications. This may affect their judgement of educational matters and their educational vision. This matter needs to be clarified in a further study.

Compulsory education: The number of years of compulsory education are also an indication of academic quality and indicates the educational quality of the workforce. While some of the lower income countries in this study insist on a high level of compulsory education, some other countries in Europe, including some which have a high GNI per capita, have not passed legislation to this effect.

Table 16, page 202 shows that the number of compulsory years of education is not necessarily related to the GNI per capita of the individual country or the amount of the GDP which is spent on education. As mentioned above, these comparisons have been made in order to cast light on the attitudes in certain countries towards the education of its workforce. The figures which appear in Table 17, page 203 are also affected by the number of hours per year when a pupil is receiving instruction from a qualified teacher. These figures vary greatly and are also subject to multicultural and gender issues, as clarified in the individual country reports.

Definitions of compulsory education are sometimes open to discussion. For example, some children from different racial groups or cultures, whose parents live and work in a country but are not officially citizens of that country, may not be entitled to compulsory education in the country where they live. These children are sometimes excluded from data which is collected on compulsory education and also from the enrolment ratios (Amnesty, 2007, COE, 2006 and UNICEF, 2007). Also, in some of the lower income countries in this survey, gender issues prohibit some children (usually girls) from attending school. In others, some children are required for agricultural work during certain times of the year, and are absent from school for relatively long periods.

Table 16

Years of compulsory education related to the % of GDP spent on Education

Rank	% of GDP spent on Education	GNI per capita/ colour code	Years Compulsory Education	Rank	% of GDP spent on Education	GNI per capita/ colour code	Years Compulsory Education
1	Uzbekistan		9 years	34	Spain		11 years
2	Denmark		10 years	35	Turkey		9 years
3	Iceland		11 years	36	Turkmenistan		9 years
4	Moldova		9 years	37	Slovakia		10 years
5	Norway		11 years	38	Russia		10 years
6	Sweden		10 years	39	Romania		8 years
7	Finland		10 years	40	Republic of Macedonia		8 years
8	Cyprus		9 years	41	Luxembourg		10 years
9	Ukraine		12 years	42	Tajikistan		9 years
10	Belarus		10 years	43	Armenia		10 years
11	Belgium		13 years	44	Republic of Georgia		9 years
12	Slovenia		9 years	45	Albania		8 years
13	Switzerland		9 years	46	Andorra		10 years
14	France		11 years	47	Kazakhstan		11 years
15	United Kingdom (UK)		12 years	48	Azerbaijan		11 years
16	Hungary		10 years		Unknown		
17	Portugal		9 years	49	Bosnia & Herzegovina		Unknown n
18	Poland		9 years	50	Kosovo		Unknown n
19	Austria		10 years	51	Liechtenstein		8 years
20	Netherlands		13 years	52	Montenegro		Unknown n
21	Malta		11 years	53	San Marino		Unknown n
22	Latvia		9 years	54	Serbia		8 years
23	Estonia		9 years		N/A		
24	Lithuania		9 years	55	Belgium-Fr.		
25	Kyrgyzstan		9 years	56	Belgium-Nl.		
26	Republic of Ireland		10 years	57	Belgium-de		
27	Germany		13 years	58	UK - England		
28	Italy		9 years	59	UK - Scotland		
29	Croatia		8 years	60	UK - Northern Ireland		
30	Bulgaria		8 years	61	UK - Wales		
31	Greece		9 years				
32	Monaco		10 years				
33	Czech Republic		10 years				

GNI ranking in Europe: 1 = wealthiest, 7 = poorest.	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Table 17

Years of compulsory education, per country in this study.							
Reference: See Appendix III, per country report.							
13 years	12 years	11 years	10 years	9 years	8 years	Unknown	N/A
Belgium	Ukraine	Iceland	Sweden	Uzbekistan	Croatia	Bosnia & Herzegovina	Belgium-Fr.
Netherlands	United Kingdom (UK)	Norway	Finland	Moldova	Bulgaria	Kosovo	Belgium-Nl.
Germany		France	Belarus	Cyprus	Romania	Montenegro	Belgium-de
		Malta	Hungary	Slovenia	Republic of Macedonia	San Marino	UK - England
		Spain	Hungary	Switzerland	Albania		UK - Scotland
		Kazakhstan	Austria	Portugal	Liechtenstein		UK-Northern Ireland
		Azerbaijan	Republic of Ireland	Poland	Serbia		UK - Wales
		Kazakhstan	Monaco	Latvia			
		Azerbaijan	Czech Republic	Estonia			
			Slovakia	Lithuania			
			Russia	Kyrgyzstan			
			Luxembourg	Italy			
			Armenia	Greece			
			Andorra	Turkey			
				Turkmenistan			
				Tajikistan			
				Republic of Georgia			

Factors which are an indication of academic achievement A very simple method has been used in this study to give an indication of academic achievement per country. Since this is a European survey, only international test results were applicable. Certain statistics which made very simple comparisons possible were collected. Only international statistics which could be influenced by or are relevant to the school library and information centre (specifically reading, comprehension and literacy) were used. Information and data from individual, provincial, state or national assessments were not recorded. Data was provided from the following international tests:

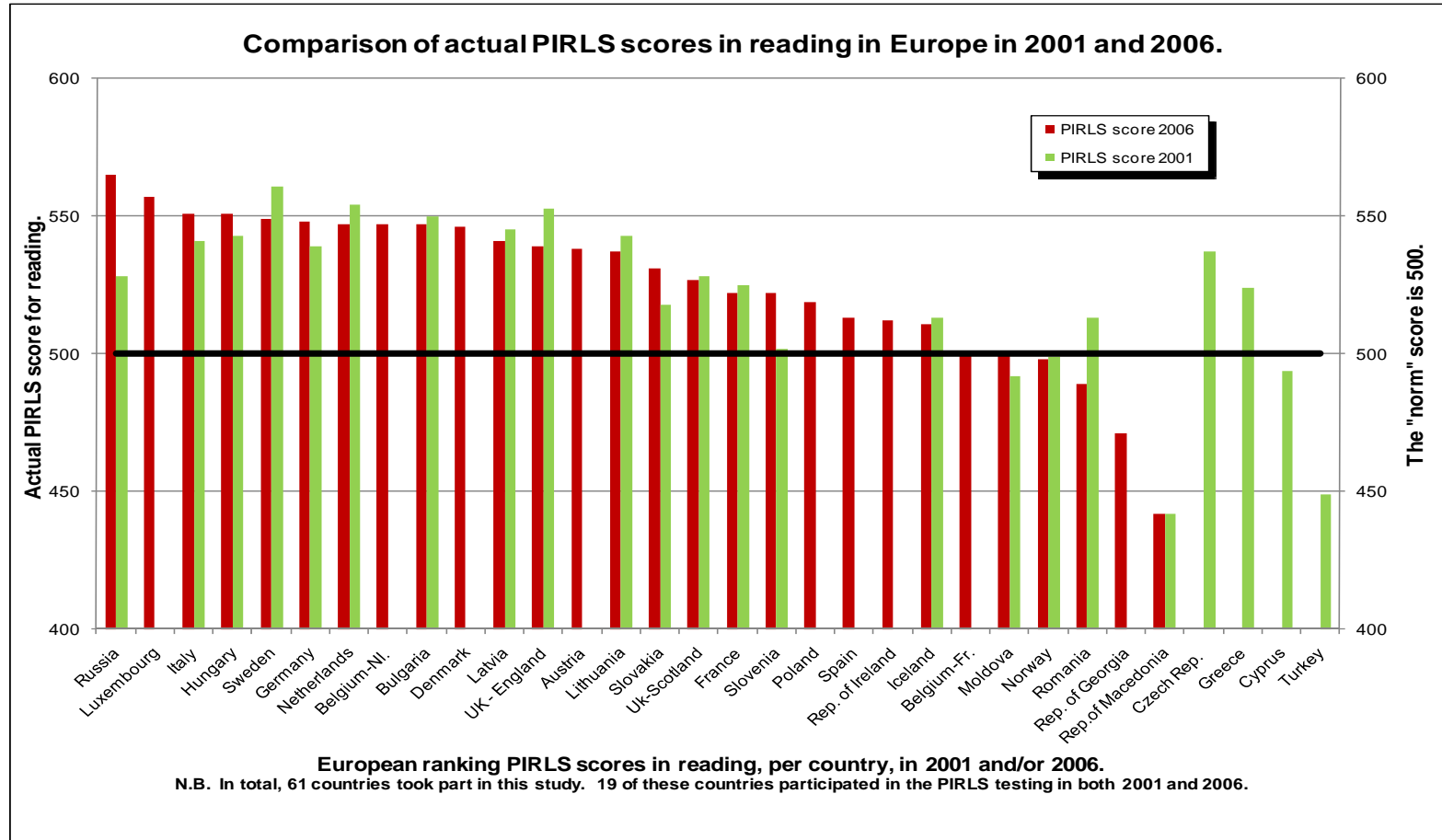
PIRLS (Progress in International Reading Literacy Study), 2001 and 2006, which measured grade 4 reading skills (children of +/- 9 or 10 years of age);

PISA (Program for International Student Assessment), 2003 and 2006, which tested 15-year-olds in science, mathematics and reading. The reading scores were relevant to this research.

As mentioned above, not all countries in this study took part in one or both tests. Some took part in one of the tests in one year, but not in both years. A very simple 'European ranking' was made (see Graph 2, page 205 and Graph 3, page 207) for each test. This ranking for both the PISA tests and PIRLS tests refers to the reading scores only.

Graph 2

Comparison of actual PIRLS scores in reading in Europe in 2001 and 2006 (of countries which are included in this study)



The norm for the PIRLS test is 500. Graph 2 above shows that scores in some countries increased in 2006, and that the European rank of some countries also increased. Some countries scored lower than they had in 2001. In general however, it could be said that most scores were reasonably consistent and that only six of the European countries which took part in the testing in 2006 scored below the norm. Surprisingly, two countries which fall into the 'highest' categories of GNI per capita⁴⁵ scored below the norm in 2006 – Norway and the French speaking community of Belgium. The following European countries which took part in the PIRLS tests in both 2001 and 2006 showed a significant gains in 2006: Germany, Hungary, Italy, the Russian Federation, Slovenia and Slovakia, however UNESCO, (2009a, p. 111) suggests that some results may have been obtained unfairly, and states that 'in Germany, the Russian Federation and Slovakia, improvements in reading achievement were at the expense of equity: gains were made among higher-performing students but not lower-performing ones'.

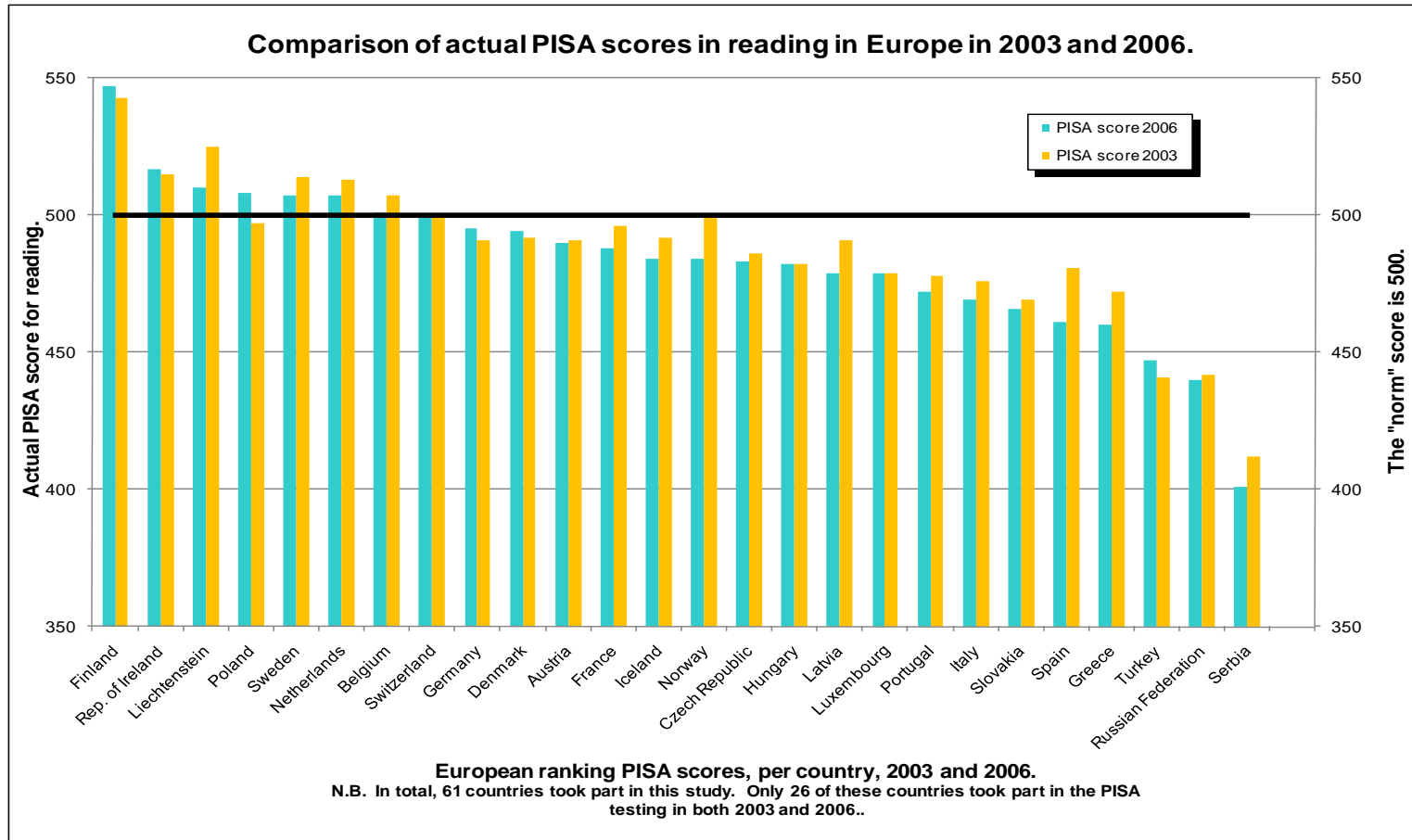
Average reading levels declined over time in England (United Kingdom), France, Lithuania, the Netherlands, Romania and Sweden. Interestingly enough, some countries with a high expenditure on education did not always score well in these tests. It could therefore be concluded that their high expenditure on education did not necessarily result in the academic achievement of pupils.

In the PIRLS report 2006 (IEA, 2006), the term 'school library' is used in questionnaires. School leaders were asked to submit information about the use of the school library in their school, however no guidelines or definitions for the 'school library' were given. The PIRLS researchers were contacted by E-mail and asked for clarification of this matter. They answered that there was no clear definition of a 'school library' and that this was left to the discretion or individual interpretation of the school leader. Therefore, when school leaders completed information about school libraries in the PIRLS questionnaires, they were perhaps referring to the kinds of 'school libraries' which are described in Chapter 3, page 33 of this dissertation.

⁴⁵ See Table 13, page 193

Graph 3

Comparison of actual PISA scores in reading in Europe in 2003 and 2006
(of countries which are included in this study)



Graph 3 shows PISA scores in reading for 15-year-old pupils in Europe in 2003 and 2006 and provides a simple comparison of European countries which took part in the PISA testing for reading in both 2003 and 2006 (a total of 26 countries). Although 36 European countries took part in the testing in 2006, a comparison of data for 10 of these countries was not possible since they did not take part in the 2003 testing. A further comparison may be possible after the 2009 PISA test results are published. . Once again, the 'norm' score was 500. This graph shows that only six of the European countries in the test scored above the 'norm'. Five of these countries fall into the category of 'highest' GNI per capita income in this study⁴⁶. The exception is Poland, which, despite a lower GNI rank per capita, scores very well in the PISA 2006 test for reading. Seventeen countries in the test scored **lower** (i.e. less points) than they had in the 2003 test, which may indicate that the quality of reading deteriorated. However, some of these scores were only slightly lower, while others were considerably lower, in particular in Norway, Latvia, Spain, Greece and Serbia. These five countries scored below the norm in both 2003 and 2006, but in 2006 their score was even lower than in 2003.

In an attempt to give an indication of the scores in reading for both the PISA and the PIRLS tests which took place in 2006, for all 61 countries in this survey, Graph 4, page 210 has been prepared. The 61 countries are shown in (a simplified) order of GNI ranking in Europe (on the bottom of the graph). The simplified order of GNI ranking is explained in Table 13, page 193. The score of each country in either the PISA or the PIRLS test, is also the **European rank** of that country, which has only been applied to countries in this study, as explained above and is not an international rank. This means that the country with the lowest column is ranked as number 1 (PISA testing, **blue** – Nr. 1 is Finland, PIRLS testing, **red** – Nr. 1 is Russia⁴⁷). No data for either of the tests was available for the following countries: Albania, Andorra, Armenia, Belarus, Belgium – German speaking community, Bosnia & Herzegovina, Cyprus, Kazakhstan, Kosovo, Malta, Monaco, Ukraine, San Marino, Tajikistan, Turkmenistan, U.K. – Northern Ireland, U.K. – Wales and Uzbekistan. These are countries with a very small population, are part of the different language speaking communities of Belgium, are separate countries within the U.K., were part of the former U.S.S.R, or are countries where recent armed conflicts have taken place.

⁴⁶ See Table 12, page 192.

⁴⁷ According to UNESCO (2009a, p. 111), in the Russian Federation improvements in reading achievement were at the expense of equity.

When the 2006 scores for the PIRLS test and the PISA test for **reading** are compared together (see Graph 4 below), the following observations can be made:

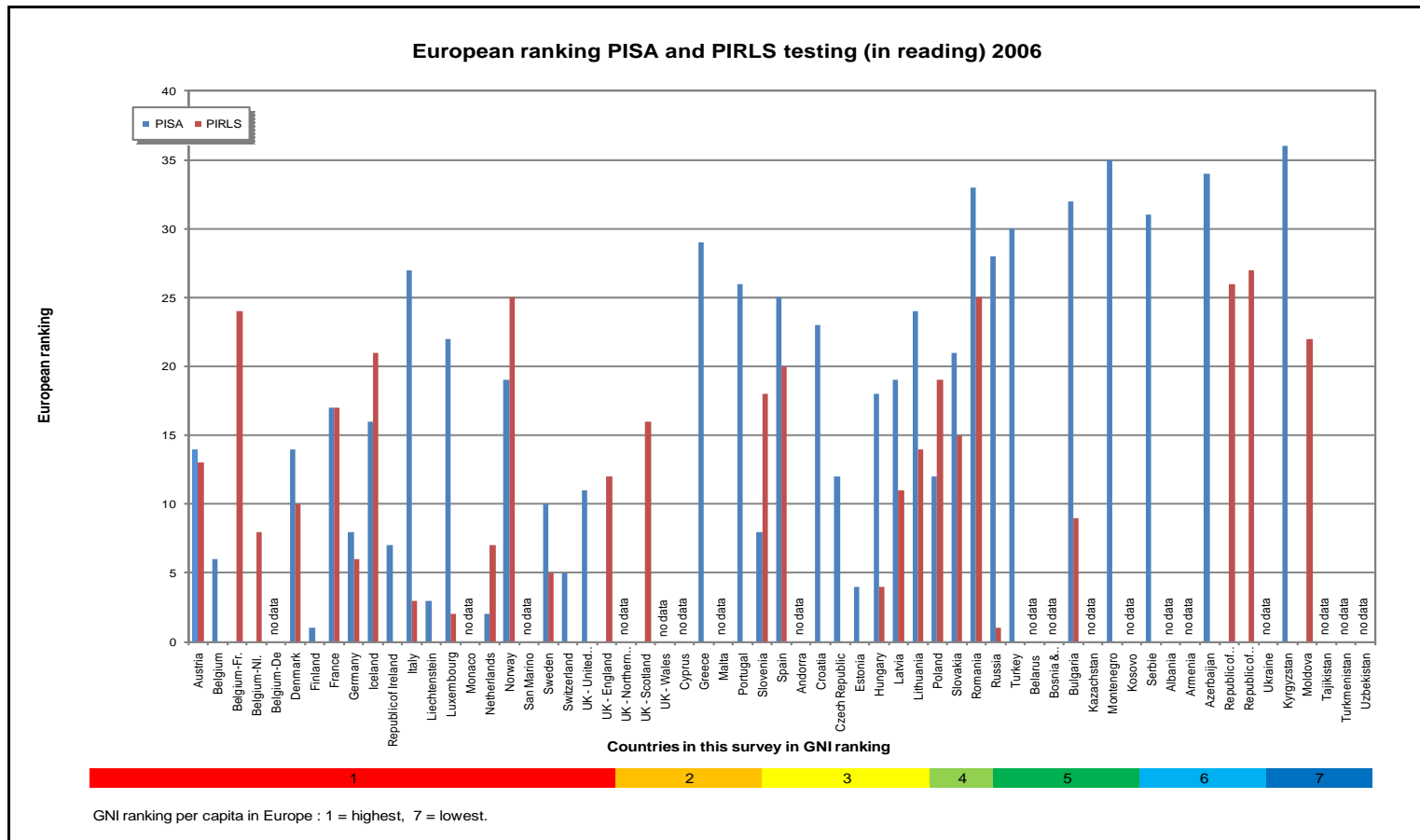
- Six countries in this study which took part in the PISA tests in 2006 scored above the norm: Belgium (entire country), Finland, Liechtenstein, Netherlands, Switzerland and Estonia.
- Five countries in this study which took part in the PIRLS tests in 2006 scored above the norm: Italy, Luxembourg, Sweden, Hungary and Russia, however UNESCO (2009a, p. 111) has commented on the equity of Russia's score.

Because not all countries participated in all the tests for all years, it is difficult to make direct comparisons. Nevertheless, in order to derive an indication of quality of education, scores in the top 30% in both tests in 2006, e.g. the Rep. of Ireland, Sweden, Netherlands and the Flemish speaking community of Belgium, were investigated. Their scores indicate that quality of education remains fairly consistent throughout the primary and secondary school levels. These data could also be used to indicate that, in countries which score below the norm on one or both tests, not enough attention is being paid to essential reading skills throughout pupils' school careers. In view of the growing importance of literacy, including new literacies, this fact should give cause for serious concern at international level. Some countries which scored quite well in the PIRLS tests for reading scores (pupils of +/- 9 or 10 years of age) showed a clear decline in their score in the PISA reading scores (15-year-old pupils). This may indicate that not enough attention has been paid to the reading skills of older pupils in these countries. Investigations have revealed that there are many extenuating circumstances which affect these scores, however, in this study, these scores are only being used to provide an indication of a possible scenario.

Graph 4

European ranking per country in this study : PISA and PIRLS testing (in reading) 2006

(N.B. the lower the column, the higher the ranking)



The introduction of ICT into schools in each individual country, including ICT policy and the use of ICT in the school library and information centre (SLIC) Some information about ICT policy can be found in the European Schoolnet Insight Reports (European Schoolnet, 2008, Portal), however not all countries in this study provide information to these reports, which supply a lot of information about technical aspects in the use of ICT. Mention is sometimes made of ICT lessons in the curriculum, but this often refers to the use of specific (technical or administrative) programmes such as Microsoft Office in the presentation of school tasks or projects. The Insight Reports also confirm that pupils learn how to make use of media such as pictures, art, films etc. in presentations and are taught simple programming, or the application of statistical programmes. Unfortunately, instruction in media, information and new literacy skills and in the ethical use of content which is obtained by means of ICT is seldom mentioned.

Also, even more importantly, while the Insight Reports refer to instruction for teachers in ICT skills, they record that these are often very short, technical courses. No reference is made to the problems which many teachers encounter in the use of ICT as an educational tool (see Chapter 10, page 69. There is no explanation about how teachers who are expected to teach either information or technical ICT skills to pupils have obtained their qualifications and expertise in these skills. The insinuation is that teachers have gained these skills ‘naturally’, however Probert’s research (2009) contradicts this viewpoint. The ICT ‘experts’ in schools are often people who have gained their skills ‘along the way’, without any specific professional training or qualifications, or during short courses. Their skills have not been officially tested. Their professed knowledge was gained while they were also carrying a heavy teaching load in their own subject. While these ICT skills and knowledge may have been enough when computers first started to be introduced into the schools in the 1960’s, today (2009) the information society has become very complex and competitive. This present study indicates that a high level of training and competency is needed in order to teach technical ICT and content (media and information literacy) skills to pupils. The school’s policy statement should record the way ICT is used within the school as an educational tool and should include information about the way in which the school’s information policy is co-ordinated in a professional manner⁴⁸.

The EMPIRICA 2006 study (Korte and Hüsing, 2006) provided information about the introduction of ICT into the schools. It refers to the benchmarking (comparisons) of access and use of ICT in European schools in 2006. Once again,

⁴⁸ See Final Conclusions, Chapter 23.

not all countries in this research took part in this study. The report contains (quantitative) statistics about a lot of technical aspects – hardware and software - related to the introduction of ICT into the schools, for example:

The total physical number of computers per hundred pupils (%) at various levels within the school (see Table 18, page 213). There is no reference to the quality of these computers, their capacity (memory), or their age. The reliability of the computers or of the school network is not mentioned. Nothing has been said about the location of these computers within the school, i.e. how many are used for administrative and managerial purposes and how many are actually used as educational tools. While school administration has seen great changes and improvements since the introduction of ICT within the schools, this was not the primary objective. ICT was introduced into schools: ‘to enhance the reach and quality of teaching and learning’ (UNESCO, 2009d).

The total number of computers with an internet connection Table 19, page 214 shows the percentage of schools, per country, with an internet connection, and the percentage of school libraries with a broad band internet connection (Korte and Hüsing, 2006) and (IFLA/FAIFE, 2007, Portal), however this information appears to be inconsistent. Five countries: Denmark, Norway, Iceland, Germany and Slovenia have consistent information. No reference is made to the reliability of the internet connections or filtering of information (Filter, 2006), (Johnson, Levine, Smith and Smythe, 2009). Although it may be presumed that these internet connections allow for better communication and access to information from inside and outside the school, the reliability of these facilities was not recorded. Informal interviews indicate that these systems are often ‘down’- i.e. not working. Also, no information is given about how these internet connections are used either as educational tools by the teachers and pupils, or for administrative purposes. The referenced reports only record their existence (quantitative data). The data from library resources (IFLA/FAIFE, 2007, Portal) does, however, specifically refer to the availability of information in official, national and local languages.

Three simple illustrations - Tables 18, 19 and 21 (below) show that countries which provide high levels of ICT technology in schools are usually the countries with the highest GNI per capita (coloured in red). These countries usually have the highest ratio of computers and internet access per pupil, however these are quantitative and not qualitative data.

Table 18

Comparison of certain ICT facilities in schools in 2006, for countries in this study

Country	Nr. computers per 100 pupils in European schools 2006	% schools with computers in classrooms - 2001	% schools with computers in classrooms - 2006
Denmark	27,30%	31,00%	32,00%
Norway	24,20%	Unknown	84,00%
Netherlands	21,00%	31,00%	92,00%
UK - (not specified)	19,80%	54,00%	95,00%
Luxembourg	19,80%	36,00%	88,00%
Sweden	17,40%	47,00%	86,00%
Finland	16,80%	49,00%	77,00%
Austria	16,20%	24,00%	65,00%
Iceland	15,30%	Unknown	68,00%
France	12,50%	26,00%	77,00%
Cyprus	12,40%	Unknown	89,00%
Malta	11,00%	Unknown	52,00%
Ireland	10,30%	42,00%	89,00%
Belgium (not specified)	9,70%	41,00%	77,00%
Hungary	9,60%	Unknown	19,00%
Spain	9,50%	24,00%	48,00%
Czech Republic	9,30%	Unknown	48,00%
Germany	8,90%	12,00%	66,00%
Italy	8,00%	5,00%	32,00%
Slovenia	8,00%	Unknown	93,00%
Estonia	7,30%	Unknown	28,00%
Greece	6,50%	8,00%	18,00%
Slovakia	6,70%	Unknown	19,00%
Poland	6,40%	Unknown	23,00%
Portugal	6,40%	26,00%	81,00%
Latvia	5,90%	Unknown	41,00%
Lithuania	5,90%	Unknown	48,00%

Reference: KORTE & HÜSING, 2006. See bibliography, Appendix VI.

Table 19

Percentage of schools, per country, with an internet connection, and the percentage of school libraries with a broadband internet connection

Country	% schools with broadband Internet 2006. KORTE & HÜSING, 2006	% school libraries with broadband Internet 2007, (IFLA/FAIFE, 2007, Portal).	Insight Report European Schoolnet, 2008 School libraries reported	Insight Report % schools with PC's in school library 2006
Denmark	95,00%	81-100%	Yes	71%
Norway	89,00%	81-100%	Yes	54%
Netherlands	92,00%	No data provided	Yes	27%
UK - (not specified)	75,00%	81-100%	Yes	49%
Luxembourg	77,00%	81-100%	Yes	33%
Sweden	85,00%	41-60%	Yes	24%
Finland	90,00%	81-100%	Yes	14%
Austria	69,00%	81-100%	Yes	17%
Iceland	92,00%	81-100%	Yes	49%
France	75,00%	No data provided	Yes	36%
Cyprus	31,00%	41-60%	Yes	41%
Malta	95,00%	41-60%	Yes	21%
Ireland	66,00%	81-100%	Yes	11%
Belgium (not specified)	74,00%	81-100%	Yes	23%
Hungary	77,00%	81-100%	Yes	37%
Spain	81,00%	No data provided	Yes	40%
Czech Republic	63,00%	81-100%	Yes	20%
Germany	63,00%	61-80%	Yes	23%
Italy	69,00%	41-60%	Yes	25%
Slovenia	85,00%	81-100%	Yes	89%
Estonia	95,00%	61-80%	Yes	34%
Greece	13,00%	No data provided	Yes	7%
Slovakia	40,00%	Less than 20%	Yes	4%
Poland	28,00%	41-60%	Yes	39%
Portugal	73,00%	No data provided	Yes	61%
Latvia	67,00%	41-60%	Yes	67%
Lithuania	33,00%	41-60%	Yes	62%
Belgium - de	No data provided	81-100%	Yes	No data provided
Liechtenstein	No data provided	No data provided	No data provided	No data provided
Monaco	No data provided	81-100%	No data provided	No data provided
San Marino	No data provided	81-100%	No data provided	No data provided
Switzerland	No data provided	41-60%	No data provided	No data provided
Andorra	No data provided	81-100%	No data provided	No data provided
Croatia	No data provided	81-100%	No data provided	No data provided
Romania	No data provided	No data provided	No data provided	No data provided
Russia	No data provided	Less than 20%	No data provided	No data provided
Turkey	No data provided	Less than 20%	No data provided	No data provided
Belarus	No data provided	No data provided	No data provided	No data provided
Bosnia & Herzegovina	No data provided	41-60%	No data provided	No data provided
Bulgaria	No data provided	Less than 20%	No data provided	No data provided
Kazakhstan	No data provided	Less than 20%	No data provided	No data provided
Montenegro	No data provided	Less than 20%	No data provided	No data provided
Kosovo	No data provided	No data provided	No data provided	No data provided
Serbia	No data provided	21-40%	No data provided	No data provided
Albania	No data provided	Less than 20%	No data provided	No data provided
Armenia	No data provided	No data provided	No data provided	No data provided
Azerbaijan	No data provided	No data provided	No data provided	No data provided
Republic of Georgia	No data provided	No data provided	No data provided	No data provided
Republic of Macedonia	No data provided	No data provided	No data provided	No data provided
Ukraine	No data provided	Less than 20%	No data provided	No data provided
Kyrgyzstan	No data provided	No data provided	No data provided	No data provided
Moldova	No data provided	Less than 20%	No data provided	No data provided
Tajikistan	No data provided	No data provided	No data provided	No data provided
Turkmenistan	No data provided	No data provided	No data provided	No data provided
Uzbekistan	No data provided	No data provided	No data provided	No data provided

	Information from educational source
	Conflicting information
	No data provided
	Information from library source

Percentages of teachers who used computers in the class during the last 12 months:

No qualitative questions were asked about **how** these teachers used the computers. The purpose of the usage is very unclear⁴⁹.

Percentage of computers in the school library: Table 19, page 214 and Table 20, page 216 show the number of school libraries which have been reported to this study by different sources and the percentage of schools with computers in the school libraries. The information is often conflicting. Once again, this thesis queries the definition of the 'school library' in the questionnaires, which were completed by teachers and school leaders. An answer to an E-mail was sent to the researchers who were involved with this Empirica study (Korte and Hüsing, 2006) verified that no definition was given for the term 'school library' and once again the interpretation of this term was left to the discretion of the interviewees. This implies that often the interviewees were not referring to school libraries as defined in Chapter 3, page 27 and page 33 of this dissertation. Also, no information was given regarding the use of the computer(s) in the school library, i.e. for administrative purposes (library administration) or by pupils, during the application of new forms of learning. Informal interviews (face-to-face or by E-mail and CMC) indicate that these computers are often used for administrative purposes only.

⁴⁹ See Chapter 10, page 69 and also Cuban (2003).

Table 20

Number of school libraries reported to this study by different sources and the percentage of schools with computers in the school libraries

Country	Number of school libraries IFLA /FAIFE World Report 2007 and other sources (See Appendix III).	Insight Report School libraries reported (European Schoolnet, 2008)	% schools with computers in school library. (Korte & Husing, 2006)	Insight Report % schools with PC's in school library 2006 (European Schoolnet, 2008)
Denmark	All schools	Yes	69%	71%
Norway	3196	Yes	Unknown	54%
Netherlands	Report not returned	Yes	31%	27%
UK - (not specified)	2058 secondary school libraries	Yes	51%	49%
Luxembourg	36	Yes	Unknown	33%
Sweden	4300	Yes	15%	24%
Finland	No information provided	Yes	13%	14%
Austria	Unknown	Yes	5%	17%
Iceland	All primary & secondary schools	Yes	Unknown	49%
France	Report not returned	Yes	47%	36%
Cyprus	138	Yes	Unknown	41%
Malta	Estimated secondary school libraries 65	Yes	Unknown	21%
Rep. of Ireland	No information provided	Yes	9%	11%
Belgium (not specified)	No information provided	Yes	25%	23%
Hungary	4357	Yes	Unknown	37%
Spain	Report not returned	Yes	6%	40%
Czech Republic	4151	Yes	Unknown	20%
Germany	Unclear	Yes	19%	23%
Italy	1800	Yes	4%	25%
Slovenia	684	Yes	Unknown	89%
Estonia	451	Yes	Unknown	34%
Greece	Report not returned	Yes	8%	7%
Slovakia	5483	Yes	Unknown	4%
Poland	15200	Yes	Unknown	39%
Portugal	Report not returned	Yes	34%	61%
Latvia	1099	Yes	Unknown	67%
Lithuania	1312	Yes	Unknown	62%
Belgium - de	8	Yes	No data provided	No data provided
Liechtenstein	Report not returned	No data provided	No data provided	No data provided
Monaco	3	No data provided	No data provided	No data provided
San Marino	5	No data provided	No data provided	No data provided
Switzerland	47 libraries of specialised high schools	No data provided	No data provided	No data provided
Andorra	25	No data provided	No data provided	No data provided
Croatia	1264	No data provided	No data provided	No data provided
Romania	Report not returned	No data provided	No data provided	No data provided
Russia	66000	No data provided	No data provided	No data provided
Turkey	19684	No data provided	No data provided	No data provided
Belarus	Report not returned	No data provided	No data provided	No data provided
Bosnia & Herzegovina	204	No data provided	No data provided	No data provided
Bulgaria	1465 (estimate 1), 2599 (estimate 2)	No data provided	No data provided	No data provided
Kazachstan	6852	No data provided	No data provided	No data provided
Montenegro	174 primary school libraries, 47 secondary school libraries	No data provided	No data provided	No data provided
Kosovo	Report not returned	No data provided	No data provided	No data provided
Serbia	1700	No data provided	No data provided	No data provided
Albania	1700	No data provided	No data provided	No data provided
Armenia	1353	No data provided	No data provided	No data provided
Azerbaijan	Report not returned	No data provided	No data provided	No data provided
Republic of Georgia	Report not returned	No data provided	No data provided	No data provided
Republic of Macedonia	Unknown	No data provided	No data provided	No data provided
Ukraine	20600	No data provided	No data provided	No data provided
Kyrgyzstan	2133	No data provided	No data provided	No data provided
Moldova	1433	No data provided	No data provided	No data provided
Tajikistan	Report not returned	No data provided	No data provided	No data provided
Turkmenistan	Report not returned	No data provided	No data provided	No data provided
Uzbekistan	9500	No data provided	No data provided	No data provided

Not included in this table:
Belgium (French speaking community)
Separate countries within the U.K.

Information from educational source
Conflicting information
No data provided
Information from library source

Table 21 below shows that it is usually the countries with the highest GNI per capita which have the highest percentage of computers in the classroom (quantitative data).

Table 21

Percentage of schools with computers in classrooms, 2006 and 2001

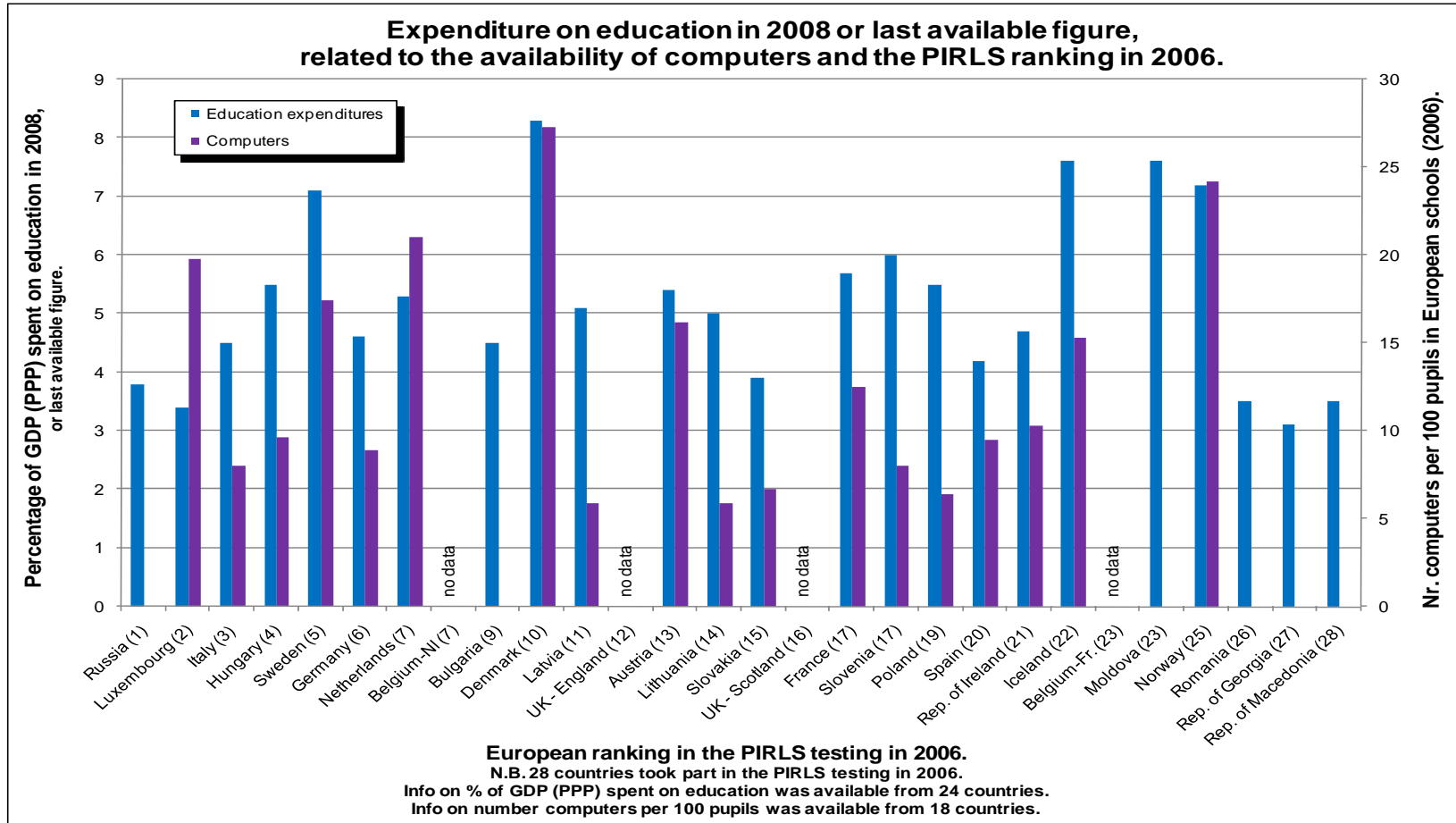
Country	% schools with computers in classrooms - 2006	% schools with computers in classrooms - 2001
UK - (not specified)	95,00%	54,00%
Slovenia	93,00%	Unknown
Netherlands	92,00%	31,00%
Ireland	89,00%	42,00%
Cyprus	89,00%	Unknown
Luxembourg	88,00%	36,00%
Sweden	86,00%	47,00%
Norway	84,00%	Unknown
Portugal	81,00%	26,00%
Finland	77,00%	49,00%
France	77,00%	26,00%
Belgium (not specified)	77,00%	41,00%
Iceland	68,00%	Unknown
Germany	66,00%	12,00%
Austria	65,00%	24,00%
Malta	52,00%	Unknown
Spain	48,00%	24,00%
Czech Republic	48,00%	Unknown
Lithuania	48,00%	Unknown
Latvia	41,00%	Unknown
Denmark	32,00%	31,00%
Italy	32,00%	5,00%
Estonia	28,00%	Unknown
Poland	23,00%	Unknown
Hungary	19,00%	Unknown
Slovakia	19,00%	Unknown
Greece	18,00%	8,00%

Reference: KORTE & HÜSING, 2006. See bibliography, Appendix VI.

When these statistics were compared with international assessments of academic achievement, there is little evidence that the actual **provision** of and expenditure on ICT facilities can be related to an increase in academic achievement (see Graph 5, page 218, Graph 6, page 219 and Graph 7, page 220).

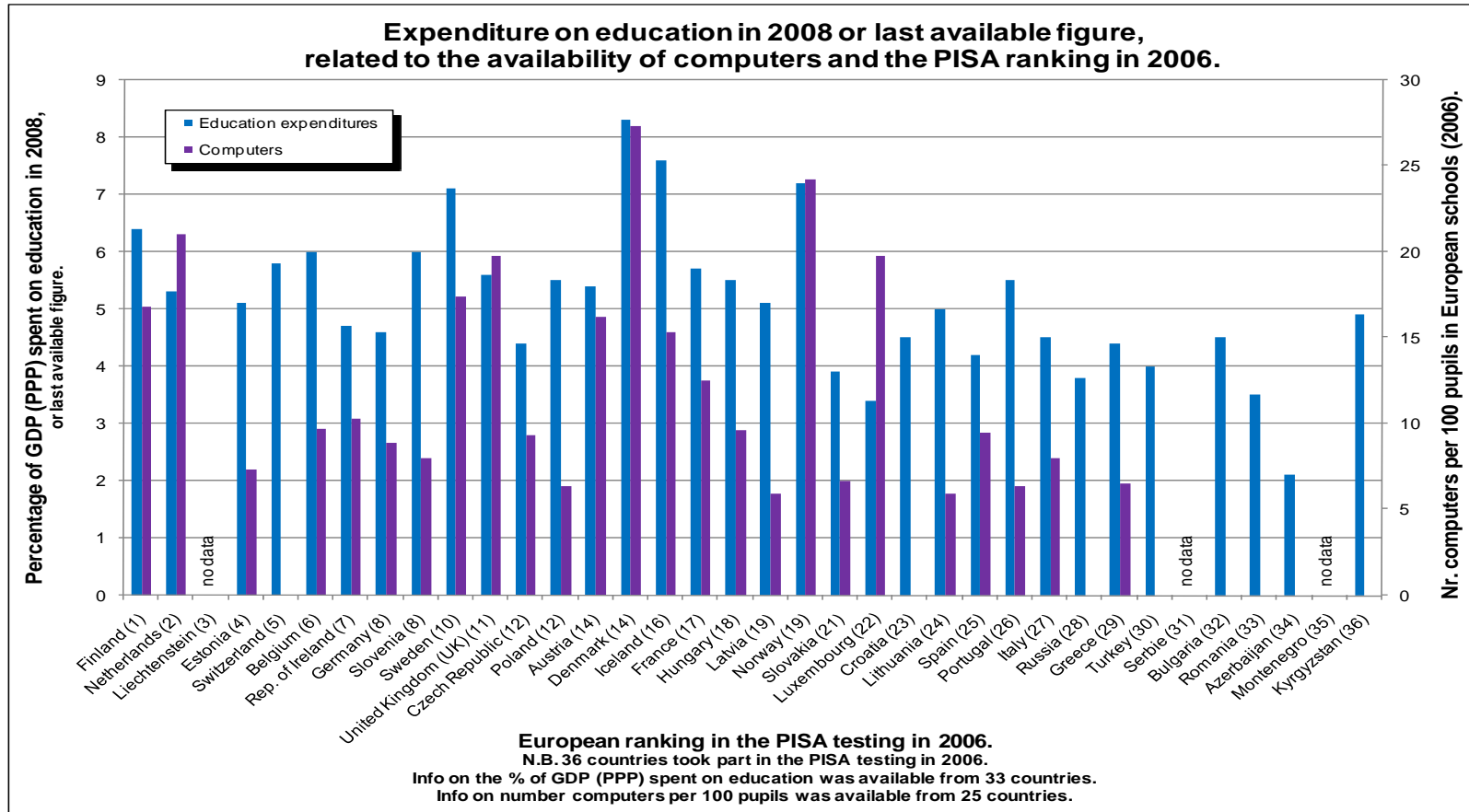
Graph 5

Percentage of GDP spent on education in 2008 or last available figure related to the availability of computers per 100 pupils and the PIRLS ranking in 2006



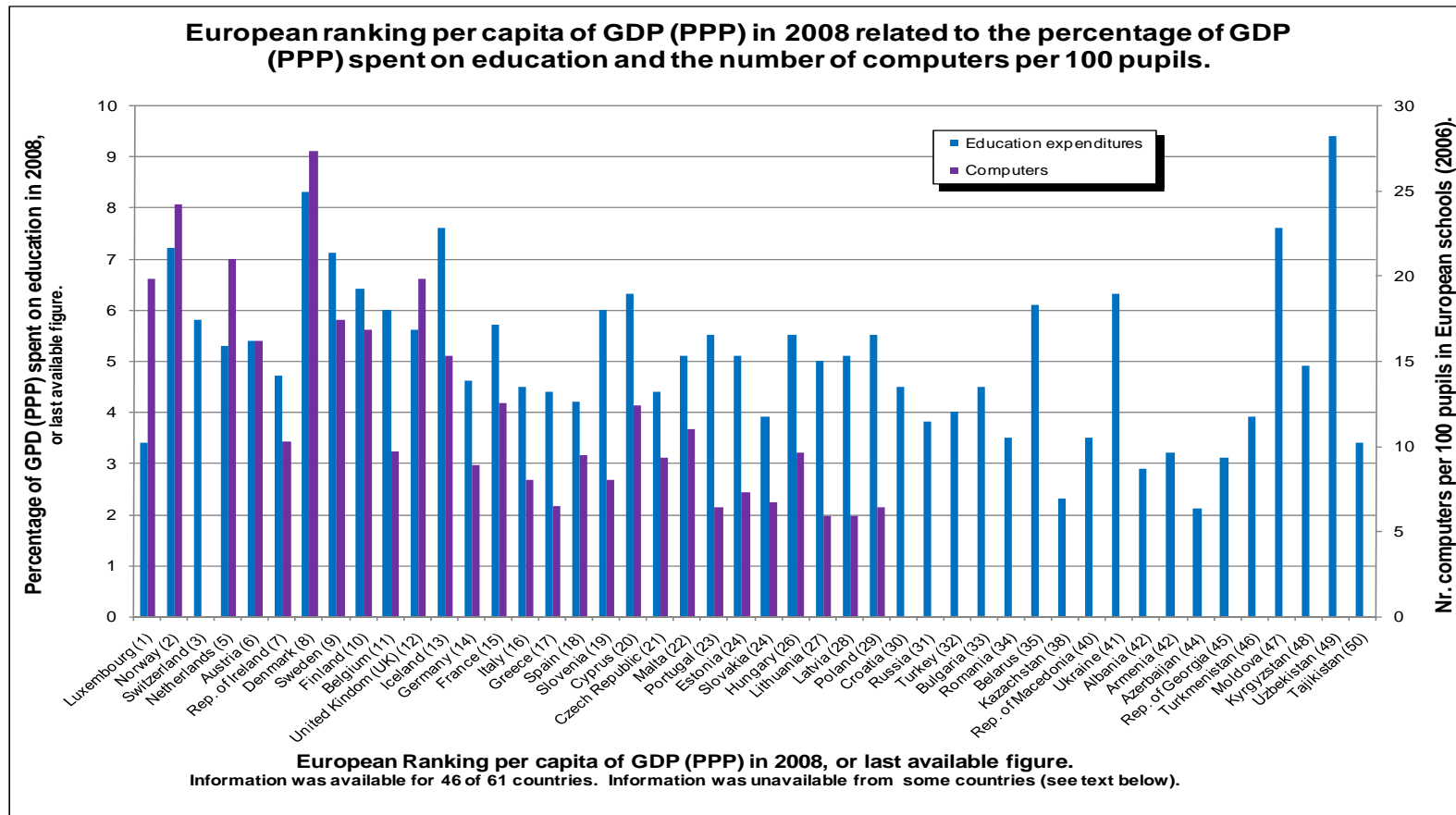
Graph 6

Percentage of GDP spent on education in 2008 or last available figure related to the availability of computers per 100 pupils and the PISA ranking in 2006



Graph 7

European ranking per capita of GDP in 2008 (or last available figure) related to the percentage of GDP spent on education in 2008 (or last available figure) and the availability of computers per 100 pupils in 2006



In Graph 7, page 220, information was unavailable either with regard to the European Ranking per capita of GDP (PPP) in 2008 (or last available figure) or the percentage of GDP (PPP) spent on education in 2008, from the following countries: Andorra, the separate language communities of Belgium, Bosnia & Herzegovina, Kosovo, Liechtenstein, Monaco, Montenegro, San Marino, Serbia and the separate countries of the United Kingdom. For this reason, these countries have been excluded from this table.

Table 22 below shows a percentage of teachers who, according to the referenced Empirica study, used computers in the class during a period of twelve months, however the way in which these PC's were used (as educational tools) is not specified.

Table 22

Total percentage of teachers who used computers in the class in the last twelve months, including European ranking

Country	Total % of teachers who used computers in class in the last 12 months - all school types	Ranking: Total % of teachers who used computers in the class in the last 12 months. all school types
Austria	87,90%	UK - (not specified)
Belgium (not specified)	69,00%	Denmark
Cyprus	75,00%	Sweden
Czech Republic	78,30%	Netherlands
Denmark	94,60%	Norway
Estonia	59,70%	Austria
Finland	85,10%	Finland
France	65,50%	Ireland
Germany	78,00%	Iceland
Greece	35,60%	Czech Republic
Hungary	42,80%	Germany
Iceland	79,50%	Cyprus
Ireland	81,70%	Malta
Italy	72,40%	Italy
Latvia	34,90%	Slovakia
Lithuania	59,30%	Luxembourg
Luxembourg	70,20%	Portugal
Malta	74,50%	Belgium (not specified)
Netherlands	90,00%	Spain
Norway	89,40%	Slovenia
Poland	61,40%	France
Portugal	69,50%	Poland
Slovakia	70,30%	Estonia
Slovenia	67,60%	Lithuania
Spain	68,20%	Greece
Sweden	90,90%	Latvia
UK - (not specified)	96,40%	Hungary

Reference: KORTE & HÜSING, 2006. See bibliography, Appendix VI.

[Media and information literacy objectives per country and the role played by the school library and information centre \(SLIC\)](#) Information about media literacy objectives can be found in the study carried out by the European Commission (2007, Portal). Once again, not all countries in this research participated in the referenced study, however the individual country reports in Appendix III mention the media literacy objectives in education, for each participating country. While educational policy makers throughout the world acknowledge the importance of media literacy in our society, the referenced study fails to provide clear international definitions of media literacy which are acceptable to educators and academics at international level. The study presents information literacy as being a part of digital literacy - a (small) part of media literacy. This definition is unacceptable to many, since international reports and research have provided evidence that the specific use of information literacy skills plays an important role in lifelong learning, in the acquisition of knowledge and academic achievement, and is also an essential 21st century learning skill.

[Specific information about libraries and school libraries and information centres \(SLICs\), at national and individual level](#) Each individual country report in Appendix III contains specific (available) information about school libraries and information centres, contained from many different sources, including a description of the differences in (school) library structures throughout Europe. Table 23 (page 223) below shows that a total of 191,730 school libraries (quantitative statistics) were reported by the countries in this survey, serving approximately 115,000,000 children (Population Reference Bureau, 2009). The statistics shown in Table 23 are incomplete and can only be used to provide an indication of the actual number of school libraries. Factors which influence these figures and the reliability of this data have already been described.

Table 23Reported number of school libraries : 2007/2008 (in countries in this study)

Total number of school libraries reported 2007/2008		
	Country	Number
1	Albania	1700
2	Andorra	25
3	Armenia	1353
4	Austria	No information provided
5	Azerbaijan	No information provided
6	Belarus	No information provided
7	Belgium	Unclear
8	Belgium (Dutch speaking)	No information provided
9	Belgium (French speaking)	No information provided
10	Belgium (German speaking)	8 (secondary school libraries)
11	Bosnia & Herzegovina	204
12	Bulgaria	1465 or 2599
13	Croatia	1264
14	Cyprus	138
15	Czech Republic	4151
16	Denmark	1605
17	England (see also U.K.)	Unclear
18	Estonia	451
19	Finland	No information provided
20	France	No information provided
21	Republic of Georgia	No information provided
22	Germany	No information provided
23	Greece	No information provided
24	Hungary	4347
25	Iceland	192
26	Republic of Ireland	No information provided
27	Italy	1800
28	Kazachstan	6852
29	Kosovo	No information provided
30	Kyrgyzstan	2133
31	Latvia	1099
32	Liechtenstein	No information provided
33	Lithuania	1312
34	Luxembourg	36 (secondary school libraries)
35	Republic of Macedonia	No information provided
36	Malta	65 (estimated secondary school libraries). No data primary schools.
37	Moldova	1433
38	Monaco	3
39	Montenegro	221
40	Netherlands	No information provided by LWSVO or National Library
41	Northern Ireland	Unclear
42	Norway	3196
43	Poland	15200
44	Portugal	2063
45	Romania	9389
46	Russia	66000
47	San Marino	5
48	Scotland (see U.K.)	Unclear
49	Serbia	1700
50	Slovakia	5483
51	Slovenia	648
52	Spain	No information provided
53	Sweden	4300
54	Switzerland	47 in specialist high schools
55	Tajikistan	No information provided
56	Turkey	19684
57	Turkmenistan	No information provided
58	Ukraine	20600
59	United Kingdom (UK)	2058 secondary school libraries
60	Uzbekistan	9500
61	Wales	Unclear

Note: This is quantitative information (not qualitative).
See Appendix III per country for the information source.

Total number of school libraries reported 191730

Approximately 38% of countries in this survey (23 countries) failed to return statistics or returned unclear information about the number of school libraries in that country. 15 of these countries are located in Western Europe. 13 of these 15 Western European countries are part of the group of the countries in this survey with the highest GNI per capita (colour coded in red – see Table 13, page 193). Six of these 15 countries were either separate countries within the U.K. (a figure was received from the U.K. as a whole) or separate language communities of Belgium. This indicates that 8 countries in the highest category of GNI per capita did not provide data: Austria, Belgium, Finland, France, Germany, Rep. of Ireland, Liechtenstein, and the Netherlands. This could imply that these countries do not have a strong school library tradition, do not place importance on school libraries and/or do not collect data on school libraries.

As mentioned above⁵⁰, when the IFLA/FAIFE World Report 2007 (IFLA/FAIFE, 2007, Portal) was published, it provided unexpected information about school libraries in a total of 28 countries which had until then been almost 'invisible' to the international library community. Various institutions from these countries returned information about school libraries to this report. This information was of particular interest with regard to school libraries in countries which were part of the former U.S.S.R. (Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan). During the time that these countries were part of the U.S.S.R., interesting things happened in the school libraries (as explained below), and for this reason all these countries have been included in this research, even though some of them are actually located in Central Asia. Other countries came under Communist influence after World War 2 (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, East Germany (DDR), Hungary, Rep. of Macedonia, Poland, Romania, Serbia, Slovakia and Slovenia)⁵¹. Communist influence also affected attitudes to school libraries in these countries. Table 24 below shows the statistics about school libraries in 28 countries were obtained via the IFLA/FAIFE World Report 2007.

⁵⁰ See Chapter 22, page 173.

⁵¹ See Table 8 page 183 and Table 24, page 225.

Table 24

Reported number of school libraries in countries from the former U.S.S.R and in countries which came under Communist influence after World War 2

Countries in former USSR and under Communist influence after World War 2.		
Estimate - Nr. school libraries reported in IFLA/FAIFE World Report 2007.		
1	Albania	1700
2	Armenia *	1353
3	Azerbaijan *	No information provided
4	Belarus *	No information provided
5	Bosnia & Herzegovina	204
6	Bulgaria (estimate Nr. 1)	1465
	Bulgaria (estimate Nr. 2)	2599
7	Croatia	1264
8	Czech Republic (Czechoslovakia)	4151
9	Estonia *	451
10	Republic of Georgia *	No information provided
11	Germany (East Germany DDR)	See country report Germany
12	Hungary	4347
13	Kazakhstan *	6852
14	Kyrgyzstan *	2133
15	Latvia *	1099
16	Lithuania *	1312
17	Rep. of Macedonia	No information provided
18	Moldova *	1433
19	Poland	15200
20	Romania	No information provided
21	Russia *	66000
22	Serbia	1700
23	Slovakia	5483
24	Slovenia	648
25	Tajikistan *	No information provided
26	Turkmenistan *	No information provided
27	Ukraine *	20600
28	Uzbekistan *	No information provided

* Member of former U.S.S.R.

In order to find out more about the characteristics of these particular school libraries, the following questions were asked: How can these school libraries be described? What kind of facilities do they have? When were they set up? How can they be compared with school libraries in countries which have already supplied information? Did the conditions in these libraries comply with the conditions described by IFLA/UNESCO (1999 and 2002)? What happened to these school libraries after countries achieved independence from the U.S.S.R or when Communist influence ceased?

While some countries on the list have now joined the European Union and have, to some extent, provided information to this research via reports and public sources, others had not. Also, some countries which were part of the former U.S.S.R. have been included in this research, even though they are actually located in Central Asia. An attempt was made to contact the institution, from each country which provided information to the IFLA/FAIFE World Report 2007 for more information and data. In some cases, this was provided. In other cases, information has been supplied by other organisations⁵².

According to Francis (1971), the countries listed in Table 24, page 225 placed importance on their school libraries, for two major reasons. The first priority was that citizens should be literate in both Russian and in their own language. Statistics on adult literacy show in Table 25, page 228 show that this strategy was successful. In 1917, in some countries in the U.S.S.R., almost 100% of the population were illiterate. By placing emphasis on libraries and school libraries, and by sending suitable books from Moscow, children and young people had access to reading material through libraries and school libraries. Secondly, increased literacy was used as a means of Communist indoctrination. The evidence indicates that the school libraries were usually run by teacher librarians who had a clear place in the school system. Francis (1971) confirms that these teacher librarians were often trained at university level.

Long before the Russian Revolution in 1917, Lenin had been thinking and writing about the need to harness libraries to the struggle for mass education and political awareness (Francis, 1971). Prior to the Revolution, libraries and paid librarians were almost non-existent. If and when school libraries were available, they were run by teachers, in addition to their teaching duties. If libraries did exist, they were starved of funds, space and qualified staff. Under Lenin's influence, libraries and book stocks were nationalised. Training facilities were set up for student librarians. High expenditure on library development was advocated. Francis (1971) confirms that in 1970, the Soviet Union had a wide network of different kinds of libraries with vast and valuable resources, and goes on to describe the great increase in the number of school libraries, especially at secondary and technical schools. This publication contains clear statistics of the growth of (school) libraries, per country in the U.S.S.R. and of the available facilities, and also includes library loans statistics.

Francis (1971) provides specific information about library staff in libraries in all the U.S.S.R. republics, including their level of training. Ninety percent of all library workers had received higher (tertiary) or secondary education. One amazing statistic is

⁵² See Appendix III, per individual country and also Table 10a, page 189 and Table 10b, page 190.

that in the 1965/66 school year, 50,000 people obtained higher and secondary library training. According to Francis (1971), 10,000 specialist librarians graduated from higher educational establishments and technical schools annually.

More than 30 years ago, *Library Service to Children : An International Survey* was published by the Section of Children's Libraries of IFLA (Ray, 1978). This publication contains a chapter on library services for children in the U.S.S.R. (Ganitskaya and Frolova, 1978), which confirms that the U.S.S.R. set up a unified state-wide library system for all kinds of libraries, including a network of libraries for children and young people, supervised by the U.S.S.R. Ministry of Education and the Ministry of Culture. In the early eighties, plans were also drawn up for the development of school and children's libraries, including the improvement of book supplies, in Siberia, the Far East and the Central Asian republics and Kazakhstan. These libraries were aimed at 'preparing children for life and providing a socially useful labour force'. The U.S.S.R. introduced compulsory, universal education throughout the region; over 80% of all pupils attended secondary schools. According to Gabitskaya and Frolova (1978), 'all schools have libraries where pupil can borrow books including free textbooks'. School libraries were provided to 'raise the quality of studies'. Ganitskaya and Frolova describe the establishment of hundreds of new school and children's libraries in the Ukraine, Turkmenistan, Uzbekistan, Kirghizia and Armenia during the sixties and seventies.

In the U.S.S.R, people spoke approximately 52 different languages. According to Ganitskaya and Frolova (1978), multilingual children's literature was available in all these languages. Each year, more than 100 publishing houses printed 300,000 children's books which were distributed throughout the U.S.S.R. using a centralised system. School libraries were provided with adequate funding from the school budget to purchase books and other materials. A ratio of 10-12 books per pupil (especially in the cities) is mentioned, however this ratio may include textbooks.

Although many may disagree with the political motives for their establishment, these school libraries clearly contributed to academic achievement (see Table 25, below). Unfortunately, this research confirms that these libraries are now quite often in a poor state of repair, for various reasons. Since the dissolution of the Soviet Union, many have encountered dire financial problems, since they are no longer funded sufficiently and no longer received books from Moscow.

Table 25

Adult literacy statistics per country, 2007 or 2008 (or last available figure)

Country in this survey		% Adult Literacy 2007 or 2008	Country in this survey		% Adult Literacy 2007 or 2008
1	Albania	98,7	33	Luxembourg	100
2	Andorra	100 ?	34	Republic of Macedonia	96,1
3	Armenia	99,4	35	Malta	92,8
4	Austria	98	36	Moldova	99,1
5	Azerbaijan	98,8	37	Monaco	99
6	Belarus	99,6	38	Montenegro	99 ?
7	Belgium	99	39	Netherlands	99
8	Belgium (Dutch speaking)	?	40	Norway	100
9	Belgium (French speaking)	?	41	Poland	99,8
10	Belgium (German speaking)	?	42	Portugal	93,9
11	Bosnia & Herzegovina	96,7	43	Romania	97,3
12	Bulgaria	98,2	44	Russia	99,4
13	Croatia	98,1	45	San Marino	96
14	Cyprus	97,6 ?	46	Serbia	95
15	Czech Republic	99	47	Slovakia	99,6
16	Denmark	99	48	Slovenia	99,7
17	Estonia	100	49	Spain	97,4
18	Finland	100	50	Sweden	99
19	France	99	51	Switzerland	99
20	Republic of Georgia	100	52	Tajikistan	99,5
21	Germany * (see note below)	99	53	Turkey	87,4
22	Greece	96	54	Turkmenistan	98,8
23	Hungary	99,4	55	Ukraine	99,4
24	Iceland	99	56	United kingdom (U.K.)	99
25	Republic of Ireland	99	57	U.K. - England	?
26	Italy	98,4	58	U.K. - Northern Ireland	?
27	Kazachstan	99,5	59	U.K. - Scotland	?
28	Kosovo	?	60	U.K. - Wales	?
29	Kyrgyzstan	98,7	61	Uzbekistan	99,4
30	Latvia	99,7			
31	Liechtenstein	100			
32	Lithuania	99,6			

Former member of the U.S.S.R.
 Came under Communist influence after World War 2.

Note 1. The Former DDR (East Germany) came under Communist influence.
 Source of statistics Adult Literacy: CIA Factbook 2007. (CIA, 2007). Please note that some definitions of adult literacy vary slightly.

Recent interviews have revealed that new national governments now want people to read in their own national language (and not Russian). In some countries, very little (children's) literature is available in these languages. According to the individual country reports, many of the countries mentioned above are still proud of their school libraries. Attempts are being made to renovate them and bring them up to standards defined by IFLA/UNESCO (1999 and 2002). Some countries have received international aid in order to do this. Also, in many of these countries, teacher librarians are still being trained at tertiary level. However, on a negative note, during informal interviews at international conferences, some school librarians reported that they were referred to quite openly by their colleagues as 'clerks who have been relegated to the

storage rooms called (school) libraries'. This comment seems to partially refer to the fact that school librarians are also responsible for the distribution of textbooks in some countries. Some interviewees from the countries mentioned in Table 24, page 225 have asked questions about the role of school librarians throughout Europe and want to know whether or not they are 'pedagogical workers'.

More needs to be learned about these 'silent' libraries. CMC research methods will make it possible to ask new, specific questions, in order to gauge the quality of these libraries, and if necessary, to try to offer them assistance where required. Mutual co-operation between the library world and the world of education will be imperative if these investigations are to be successful. People who provided information for this section of the research sometimes lived in remote places and were less familiar with western library and educational processes. In some of these places, the political situation was very unpredictable. However, once contact had actually been made, they went to a great deal of time and trouble to provide information (in English) to this study. While these libraries may not always have money to spend on extensive ICT facilities, they were set up to provide a certain quality in education and the evidence is that they continue to desire to do so. This research has revealed positive attitudes – not only co-operation and friendliness but also a passion and determination amongst educators – in order to prepare children for the new role which they will play as world citizens in the third information age (UNESCO, 2009a). It can therefore be concluded that these school libraries mentioned in Table 24, page 225 continue to contribute to educational quality, within the limitations of their facilities and financing.

[The school librarian and information specialist, including this person's role within the school, qualifications, job description etc.](#) Schneiderjürgen (2007) describes differences in the training of (school) librarians throughout Europe. During this research a short study was carried out about the role of the school librarian within schools in each individual country, his or her qualifications, and the availability of a national job description. Specific questions have also been asked about the current training of school librarians. Answers have been recorded as part of the paradigmatic model, in the Table at the end of each individual country report.

[A review and analysis of the paradigmatic differences](#) Parameters described in Chapter 19, page 122 have been used as criteria to determine the successful implementation of a school library and information centre in 61 countries. A review of the paradigmatic differences makes it possible to compare some of the qualitative and

quantitative conditions in school libraries in these countries with those which exist in the SLIC at the Kalsbeek College. It therefore becomes possible to determine whether or not school libraries in these 61 countries could implement the KILM, if they so desired.

While the original objectives of the matrix and sub-matrix remain fairly constant, the circumstances or parameters surrounding them are continuously changing, not only at the Kalsbeek College but also in each of the 61 countries which have been included in this study, due to the fast and continuous changes which are taking place within the information society. The impact of the changing social context affects these parameters and also influences the way in which the school library and the work of the school librarian and information specialist can influence the quality of education and academic achievement. The ability of the school leadership, teachers and library staff to adapt to the changes in the parameters is of utmost importance.

Validation Earlier surveys of school libraries and extensive face-to-face and CMC interviews have been used to validate the results of this study at European level. Table 26, page 231 provides a simple comparison of the ENSIL surveys with the, Singh and LibEcon international school library surveys, as described Chapter 3, page 32.

Table 26

Participation in international school library surveys, per country

Countries in ENSIL research 2008	Took part in Singh Survey 1993	LibEcon Millennium Report 2000
1 Albania	No	No data provided
2 Andorra	No	No data provided
3 Armenia	No	No data provided
4 Austria	Yes	No data provided
5 Azerbaijan	No	No data provided
6 Belarus (White Russian Rep.)	No	No data provided
7 Belgium	Yes	No data provided
8 Belgium (Flemish/Dutch speaking)	N/a	No data provided
9 Belgium (French speaking)	N/a	No data provided
10 Belgium (German speaking)	N/a	No data provided
11 Bosnia & Herzegovina	No	No data provided
12 Bulgaria	Yes	Yes
13 Croatia	Yes	No data provided
14 Cyprus	No	No data provided
15 Czech Republic	Yes	Yes
16 Denmark	Yes	Yes
17 Estonia	Yes	Yes
18 Finland	Yes	No data provided
19 France	Yes	No data provided
20 Republic of Georgia	No	No data provided
21 Germany	Yes	Yes
22 Greece	No	No data provided
23 Hungary	No	Yes
24 Iceland	No	Yes
25 Republic of Ireland	No	Yes
26 Italy	Yes	No data provided
27 Kazakhstan	No	No data provided
28 Kosovo	No	No data provided
29 Kyrgyzstan	Yes	No data provided
30 Latvia	Yes	No data provided
31 Liechtenstein	Yes	No data provided
32 Lithuania	Yes	Yes
33 Luxembourg	Yes	No data provided
34 Republic of Macedonia	No	No data provided
35 Malta	Yes	No data provided
36 Moldova	No	No data provided
37 Monaco	Yes	No data provided
38 Montenegro	N/a	No data provided
39 Netherlands	Yes	No data provided
40 Norway	Yes	Yes
41 Poland	Yes	No data provided
42 Portugal	No	Yes
43 Romania	No	No data provided
44 Russia	No	No data provided
45 San Marino	No	No data provided
46 Serbia	No	No data provided
47 Slovakia	Yes	Yes
48 Slovenia	No	Yes
49 Spain	No	No data provided
50 Sweden	Yes	No data provided
51 Switzerland	No	No data provided
52 Tajikistan	No	No data provided
53 Turkey	No	No data provided
54 Turkmenistan	No	No data provided
55 Ukraine	No	No data provided
56 United Kingdom (U.K.)	Yes	Yes
57 U.K. England	N/a	No data provided
58 U.K. Northern Ireland	N/a	No data provided
59 U.K. Scotland	N/a	No data provided
60 U.K. Wales	N/a	No data provided
61 Uzbekistan	No	No data provided

Interviews Extensive face-to-face and CMC interviews took place. Academic experts in the field of school librarianship, academic achievement, information literacy and lifelong learning, from a number of different universities throughout the world were interviewed personally. These experts were asked for their opinion with regard to a number of specific hypotheses (see Chapter 22, page 180).

Discussions about the objectives of this research and some of the conclusions which have been reached were also held with academics, school leaders, school librarians, teacher librarians and other experts from many different countries during national and international conferences, which were organised by the LWSVO (Dutch Working Group of School Librarians in Secondary Education) and Kennisnet in the Netherlands; the European Network for School Libraries and Information Literacy (ENSIL), in Amsterdam, Rome and Wels (Austria); the International Association of School Librarianship (IASL) - in Dublin, Hong Kong, Lisbon and Abano Terme (Italy). the European Council for International Schools (ECIS) in Berlin; the International Federation of Library Associations (IFLA) – in The Hague and in Seoul, and also during the first European Conference on School Libraries, in Wels, Austria. During these discussions it became apparent that, in some countries, recent changes in school libraries have taken place, at many different levels.

The researcher also maintains a personal network of experts (using CMC, including E-mail and other Web 2.0 technologies) and continuously receives information and data relating to day-to-day practices in primary and secondary school SLICs. Information received via these interviews and communications have been mentioned in the individual country reports where appropriate.

Answers to the research questions at European level

Question 1. What is the present state of school libraries at European level? What is their mission?

Answer: Since many of the countries in this survey do not use a specific definition for what a school library actually is, there is no specific way in which this question can be answered. Chapter 22 has revealed a great diversity in 'school libraries'. While some are of excellent quality and are run by trained personnel, others are merely a box of books in a school cupboard. The mission of the school library has not been clearly defined in many countries. However, data collected in the individual country reports provide information and data about school libraries in each of the individual countries

in this survey. The application of the paradigmatic model made useful comparisons possible.

Question 2. What are the goals of the school library in a digital Europe?

Answer: This role varies from country to country, as described in the individual country reports. In countries which fall into the middle or low income bracket, emphasis is placed on the importance of the school library, however its role is often concerned with literacy goals and the distribution of books and textbooks. In some countries with a high GNI per capita, the school library and the library staff play an important role in new forms of learning and the implementation of ICT (as an educational tool) in an interdisciplinary way throughout the school. However, some countries with a high GNI do not have a strong school library tradition and are relatively unaware of the advantages which a good SLIC can bring to educational quality and academic achievement.

Question 3. Would it be possible to introduce the sub-matrix known as the KILM into these school libraries?

Answer: Firstly, this would primarily depend upon the educational vision and leadership qualities of the school leadership, to provide a school policy statement which included the introduction of the KILM. This person would then implement this policy into the school community. Secondly, the implementation of the KILM would depend upon the quality of the library staff and thirdly on the facilities which are available within the school and the school library.

Question 4. What are the critical success factors for the implementation of the KILM at European level?

Answer: These are described below.

[Critical success factors and conclusions to this study at European level](#) The original reason for this research at European level was to find out whether or not the sub/matrix known as the KILM, which places an emphasis on the SLIC as the heart of the school's learning environment, could be applied in other school libraries in countries throughout Europe. The most important factor in the implementation of the KILM is the educational vision of the school leadership, and its ability to implement change management throughout the school. Without this, the KILM cannot be implemented. In many of the countries in the survey, it would not be possible to

implement the KILM, even though the educational vision of the school leadership is in place, since the facilities and/or the trained library staff needed to apply the KILM are unavailable. Nevertheless, many school libraries in these countries in this survey do have qualitative aspects which can enhance educational quality and academic achievement. The Final Conclusions to this research will provide further clarification.

During this research at European level, it has become apparent that the following criteria and conclusions are critical:

Definitions of the school library and information centre (SLIC), and the work carried out by the school librarian and information specialist and other library staff vary greatly. The quality of the SLIC does not necessarily depend on quantitative questions which were asked in the first ENSIL survey. In some international research reports definitions of the 'school library' and 'school librarian' were left to the discretion of the school leader or teacher who completed the questionnaire – international definitions were not applied⁵³. For this reason, some statistics are unreliable. Definitions should not be left to the interpretation of school leaders and teachers. For this research, international, qualitative definitions (IFLA/UNESCO, 1999 and 2002) are applicable. Where necessary, these international definitions should be updated and made available in official European languages for school leaders, teachers and school librarians throughout Europe.

Surveys of school libraries at national and international (European) level Accurate information about school libraries is urgently needed so that reliable studies can be carried out to gauge the importance of school libraries in education in the 21st century. National and international (school) library associations and national and international educational associations should co-operate and work closely together during these surveys. They should first agree on a set of indicators and definitions which should be used during these surveys, at all levels. It should be possible to carry out reliable national surveys via internet, using free software.

Reliable quantitative and qualitative information for a national or international survey of school libraries is very difficult to collect, as confirmed by the Dutch national surveys (Chapter 21) and the three international surveys which have been described in Chapter 3, page 32. The design of the questionnaire and the role of the person who completes it affects the data which is received, as follows:

Who sent out the survey (an educational institution or a library institution)? This is relevant to the kinds of questions which are asked. The level of the survey is also

⁵³ See Chapter 3, page 27 and page 33.

important (e.g. local, state, national, European or international level). A combined survey which is relevant to both educational and library institutions is desirable.

Who completed the survey – was the survey completed by a person or institution from the educational process or the library process; was the person who completed the survey authorised to do so, at local, national or international level? What is this person's level of knowledge on the subject? Does the person have knowledge of both processes?

Has a recent national survey of school libraries been held in the country in question, thus providing reliable information? The success of a national survey depends on the type of quantitative or qualitative questions which are asked and the definitions which are provided. The language or languages of the survey are also important.

National (school) library association: Does the country have a national school library association (and has a current address and URL been provided to the international community)?

The following questions are also very important:

Does the country have a statutory school library law⁵⁴ which states that every school should have a school library and information centre? Have international criteria been applied to the definitions in this law?

Is there a nationally recognised job description for all school levels for school librarians in the country and does it comply with IFLA/UNESCO definitions (1999 and 2002)? There are clear misunderstandings on the part of school leaders, teachers and other staff about the actual work which the school librarian and information specialist carries out. The potential of school library work (as demonstrated in countries such as the U.S.A., Canada and Australia) in the teaching of media, information and new literacy skills as part of the curriculum and in contributing to the educational quality and academic achievement is sometimes misunderstood. Clarification is needed and clear national job descriptions need to be written.

Are school librarians and information specialists still being trained in the country at tertiary level (combining a library certification with a teaching accreditation)? If so, at which universities? How many qualified school librarians are working in each individual country? Do they have the same employment conditions, including salary and working hours as other teachers in the school?

⁵⁴ See Table 9a, page 185 and 9b, page 186.

The information contained in the individual country reports shows that there is a critical shortage of (young) school librarians and information specialists in many countries throughout Europe and that there is an urgent need for training programmes, at tertiary level. Short training courses are taking place as stop-gap measures. People who do not have adequate knowledge of either pedagogy or library and information science (LIS) are being employed in school libraries in some countries. An online programme for the retraining of school librarians who are already in service is also necessary, in order to bring their qualifications up to the required level, if and when necessary.

How does the school library and information centre and the school librarian and information specialist influence educational quality? Parents, teachers and national governments are interested in the quality of education and the academic achievement of their children (UNESCO, 2009a). Academic achievement is a vital factor in a person's success in adult life. Educators and parents need to be aware that international research has confirmed that the SLIC and the work of the trained school librarian and information specialist influences academic achievement, as confirmed during the application of the KILM sub/matrix at the Kalsbeek College.

The factors mentioned above have been reviewed in the paradigmatic model and are described in the individual country reports, thus making some comparisons possible at European level. In no way are these reports intended as criticism of decisions which have been made in different countries, however they are used in an attempt to equate and compare the information which has been supplied. A number of countries have presented evidence to the international community which confirms their willingness to make improvements in the quality of education in their country and to comply with international guidelines.

Why is the training and quality of the teaching and library staff so important in education? The training of school librarians and information specialists (teacher librarians) is of utmost importance in education and has become even more important since the introduction of ICT (as an educational tool and as a means for improvement in the quality of education). The quality of the teaching and library staff is not only dependent upon their level of education but also on employment conditions and on their willingness to learn new skills and undertake professional development.

The teaching and library staff needs constant support and retraining in order to cope with the new educational challenges caused by the introduction of ICT into the schools. Recent work by UNESCO (2008b) has provided some (simple) international guidelines for this training, however these need further clarification. Clear guidelines

relating to innovations within ICT, affecting the pedagogical use of ICT also need to be provided for the educational community. This research has cast doubt on the ICT skills of some teachers. Although teachers may have received a (relatively) high level education, they may lack an affinity towards technical ICT, media, information and new literacy skills; they do not acquire these skills naturally. Interviews confirmed that not only older teachers lack ICT skills but that young teachers also sometimes have no affinity towards ICT and have difficulty in applying it effectively to their teaching. Teachers cannot be expected to teach skills which they have not learned themselves. Few countries have carried out carefully evaluations of the skills which teachers need in these areas. Also, the administrative use (by teachers and other staff) of ICT within the school is continuously changing; training and retraining in this area needs to be provided, so that they can keep up to date. Perhaps these aspects should also be included in a national policy statement.

Do school librarians and information specialists receive the support which they need from the educational establishment? These staff members represent only a small percentage of those who work in the educational process. They have a relatively 'weak' position in (large) schools where there could be between 20 to 200 teachers and one school librarian. This person can often be outvoted during the school's democratic process. During informal interviews, school librarians have mentioned a feeling of isolation within the school. Because of the important role which the SLIC and the qualified school librarian can now play in the educational process. The school leadership and national policy makers may need to intervene to clarify the role of the school librarian and information specialist at local, national or international level.

All these questions need to be carefully answered at national policy level, school leadership level, by the members of the school community and by parent. This research at European level has also provided the following important information. Education quality is affected by many different factors, including cultural and social factors. Some countries which have few financial resources and have very little access to ICT have nevertheless attempted to make improvements in educational quality, e.g. the standard of literacy, and in the number of years of compulsory education. In many cases, high standards of adult literacy have been achieved, as confirmed by international organisations.

The actual amount of education which children actually receive at primary and secondary level (i.e. the number of teaching hours) is an important factor when assessing educational quality.

It goes without saying that investment in education plays an important role in educational quality, however, available money needs to be invested wisely, in programmes which will enhance academic achievement. Countries which have made large investments in education and especially in supplying ICT facilities to schools have not necessarily shown an increase in educational quality and achievement, when gauged by international assessment tests. A great deal of money has been invested in the implementation of ICT within the schools, however this research provides evidence that the total investment or expenditure on education (calculated as a percentage of the GDP per capita) has not increased dramatically during recent years. This would seem to imply that there has been a 'shift' in expenditure – i.e. less money than usual has been spent in traditional areas of education while more may be being spent on ICT facilities. Although this investment in ICT (as an educational tool) may be essential, the effect of a 'shift' in expenditure on education should be examined by a further study at international level, since this 'shift' may affect educational quality.

Investment in ICT within the schools needs to be investigated and clarified. A clear differentiation needs to be made between costs which have been incurred for ICT used for administrative and managerial purposes and those which have been incurred in the use of ICT as an educational tool, in order to improve the quality of education within the school. This thesis suggests that research at national level should be carried out so that a clear picture of these expenditures can be provided. Countries which have less to spend on education but who are taking steps to introduce ICT into the schools in a careful way, can take advantage of the lessons learned by the countries with more financial resources.

The country reports show that a number of countries lag behind in the establishment of a national ICT policy for education, as recommended by Leu, Kinzer, Coiro and Cammack, (2004). Among other things, this policy document should define the primary goals of the application of ICT in schools for use as an educational tool for the acquisition of knowledge. ICT for administrative and managerial purposes are secondary goals. This policy statement should also clarify the ICT training and skills required by school staff members. A national policy may be in conflict with educational reforms regarding the autonomy of individual schools; these questions should be discussed carefully at all levels.

This research has provided useful information about education and school libraries in countries which were formerly part of the U.S.S.R or which came under Communist influence after World War 2. Some of these countries have the basis for good school libraries. A further study could investigate whether or not the quality of

some of these libraries has decreased due to lack of funding since independence. Steps should be taken to retain existing quality. International aid may be needed. Also, when more ICT is introduced into these schools, useful lessons could be learned from the experiences of some of the other countries in this survey.

Complex 21st century learning skills which are currently being defined by educators and academics (in 2009), should be integrated into the curriculum and need to be taught in an interdisciplinary (multilingual) way by experts, in the same way that other 'normal' subjects are taught. This thesis proposes that these skills should be taught by the certified school library and information specialist (teacher librarian). Schools which make more and more use of ICT need the help and assistance of trained experts, in both an educational sense and in a technical sense and also in the application of educational content and knowledge management.

The country reports reveal that some countries, (e.g. Denmark and France), recognise the fact that when an accent is placed on the SLIC (at the heart of the interdisciplinary learning environment) and on the work of the certified school librarian and information specialist, some of the problems mentioned above may be (partially) resolved. Also, an increase in educational quality is to be expected. Other countries are now having serious discussions at national level about these issues, and improvements in the application of the SLIC are expected in the near future.

The indications are that school librarians and information specialists from all over Europe, from different cultures and different backgrounds, are willing to join together to help and support each other in their endeavours. They did so in order to make this research possible, resulting in this dissertation which reveals the value of a good school library and a qualified school librarian in the present educational landscape in Europe. This research at European level has resulted in a fascinating virtual journey to school libraries in 61 countries. The help of the 'virtual friends' whom the researcher 'met' along the way has been greatly appreciated.

Part 4 – Final Conclusions

Chapter 23 : Final Conclusions

This international research creates a bridge between two different disciplines – Comparative Education (Sociology) and Library and Information Science (LIS) – and has attempted to provide evidence about how the knowledge of participants on one discipline can influence the other, in order to increase educational quality and academic achievement in digital Europe. It discusses major changes which occurred in education (at primary and secondary school level) towards the end of the twentieth century and suggests that, by spending more time on the educational and operational infrastructure throughout the entire school, improvements could be made in the educational quality and academic achievement of pupils. It also proposes that these changes in the school's infrastructure may also result in lower ICT and administrative costs.

Figure 11

Major changes in education in industrialised countries towards the end of the 20th century

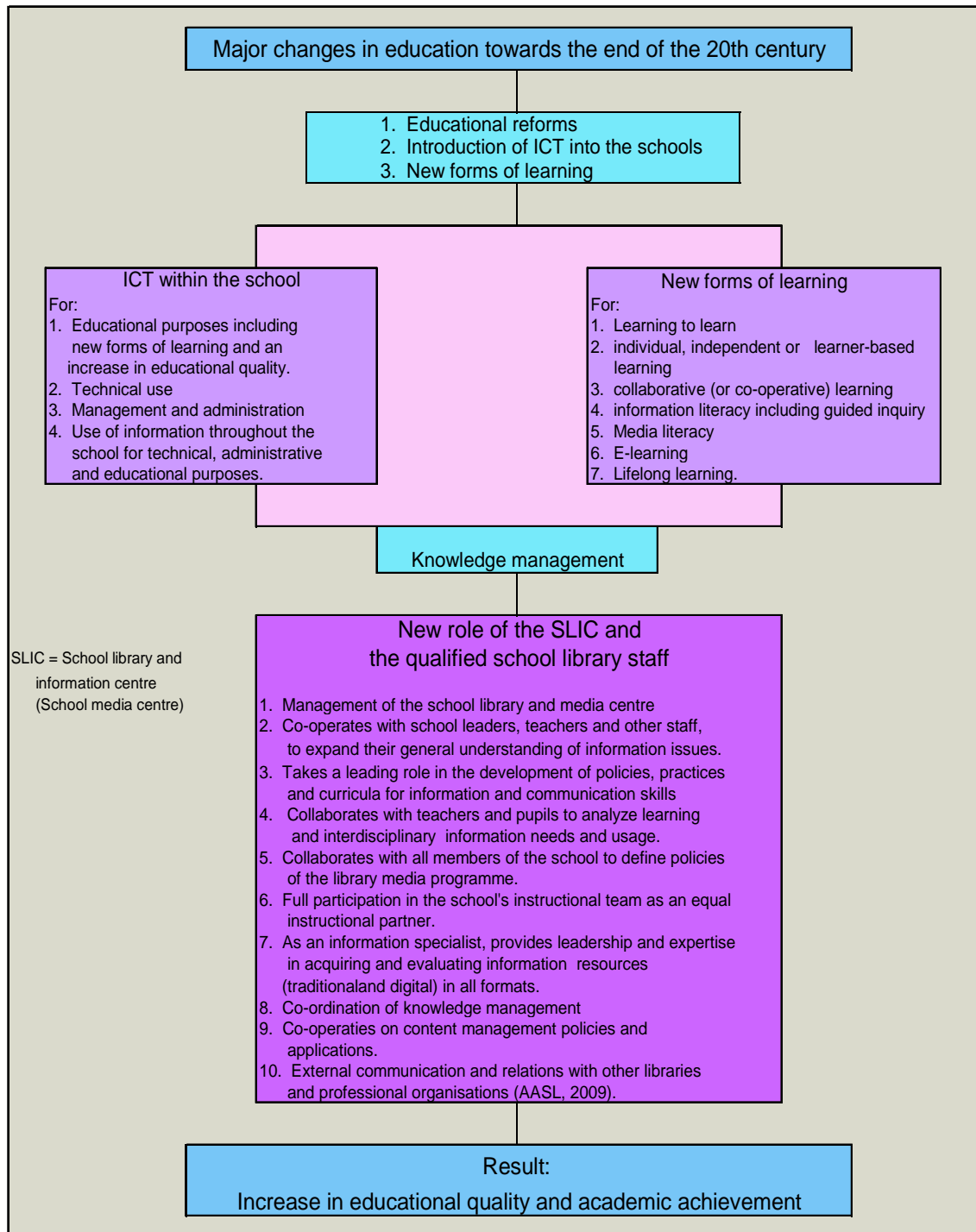


Figure 12

Roles and tasks of the various stakeholders during the introduction, implementation and application of ICT into (secondary) schools

(See also Figure 12a and 12b)

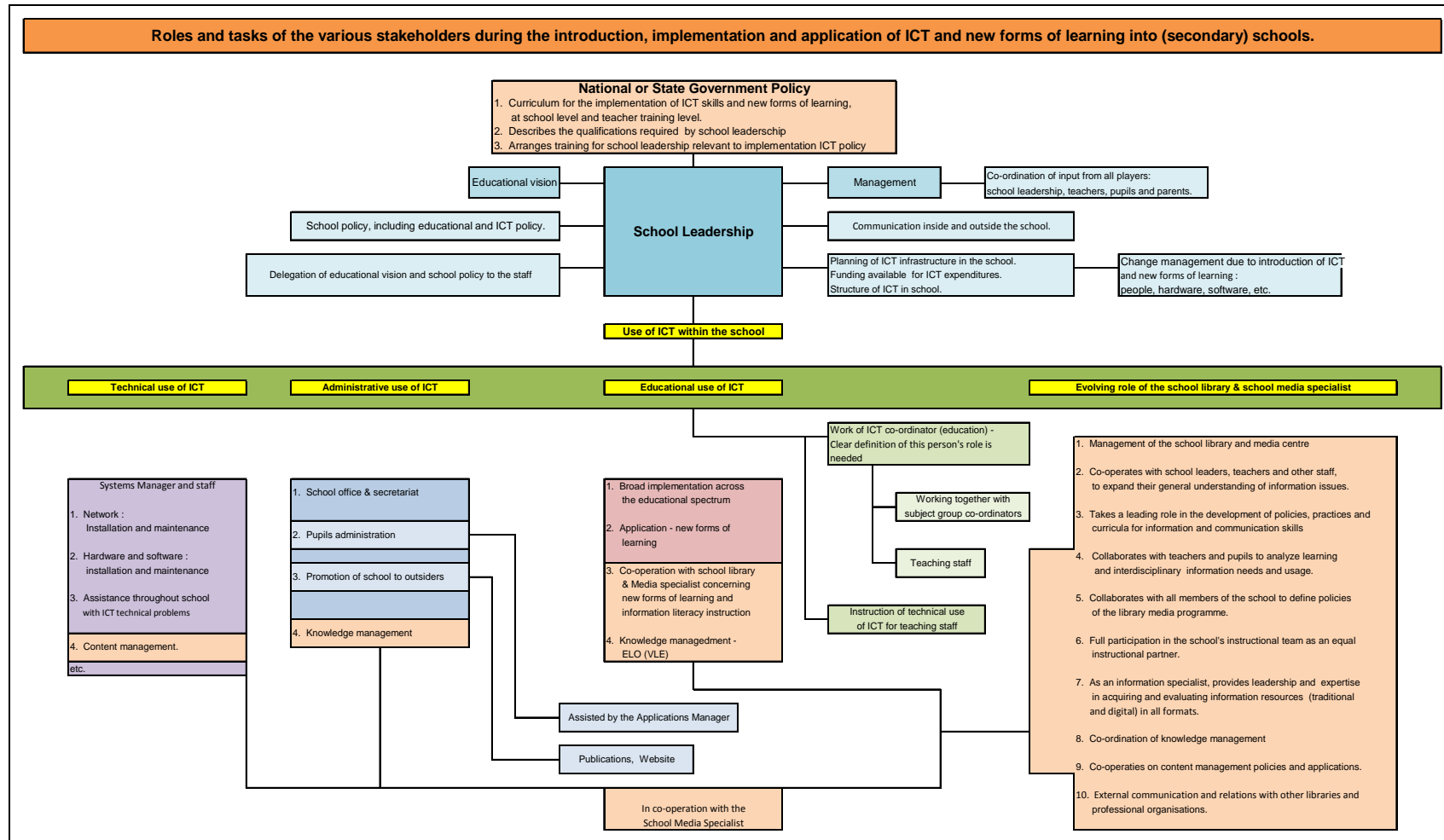


Figure 12a

Infrastructure : National or State Government Policy and the Role of the School Leadership

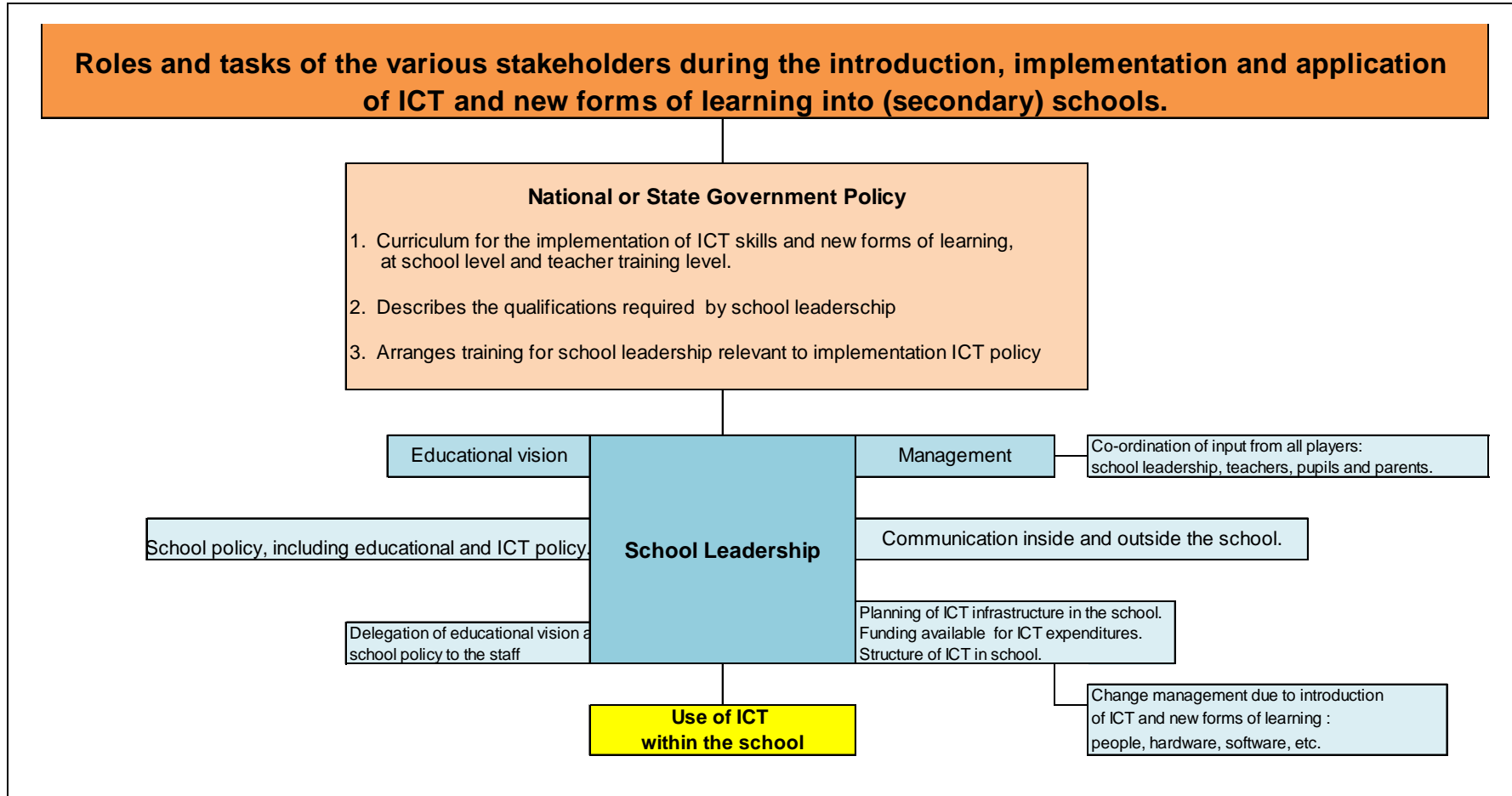


Figure 12b
Infrastructure : Use of ICT within the school

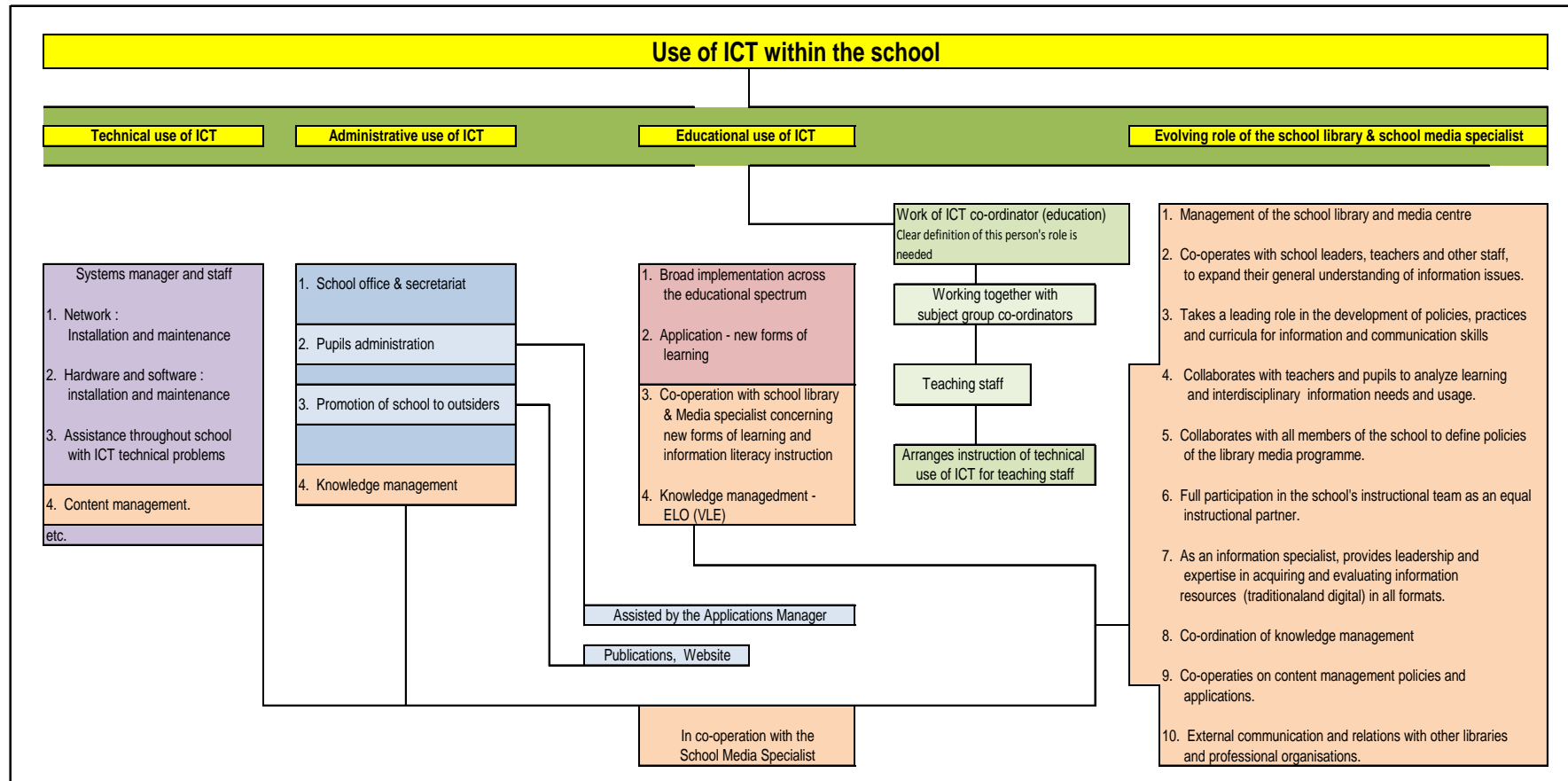


Figure 13

Objectives of school libraries and information centres within the school in 2008

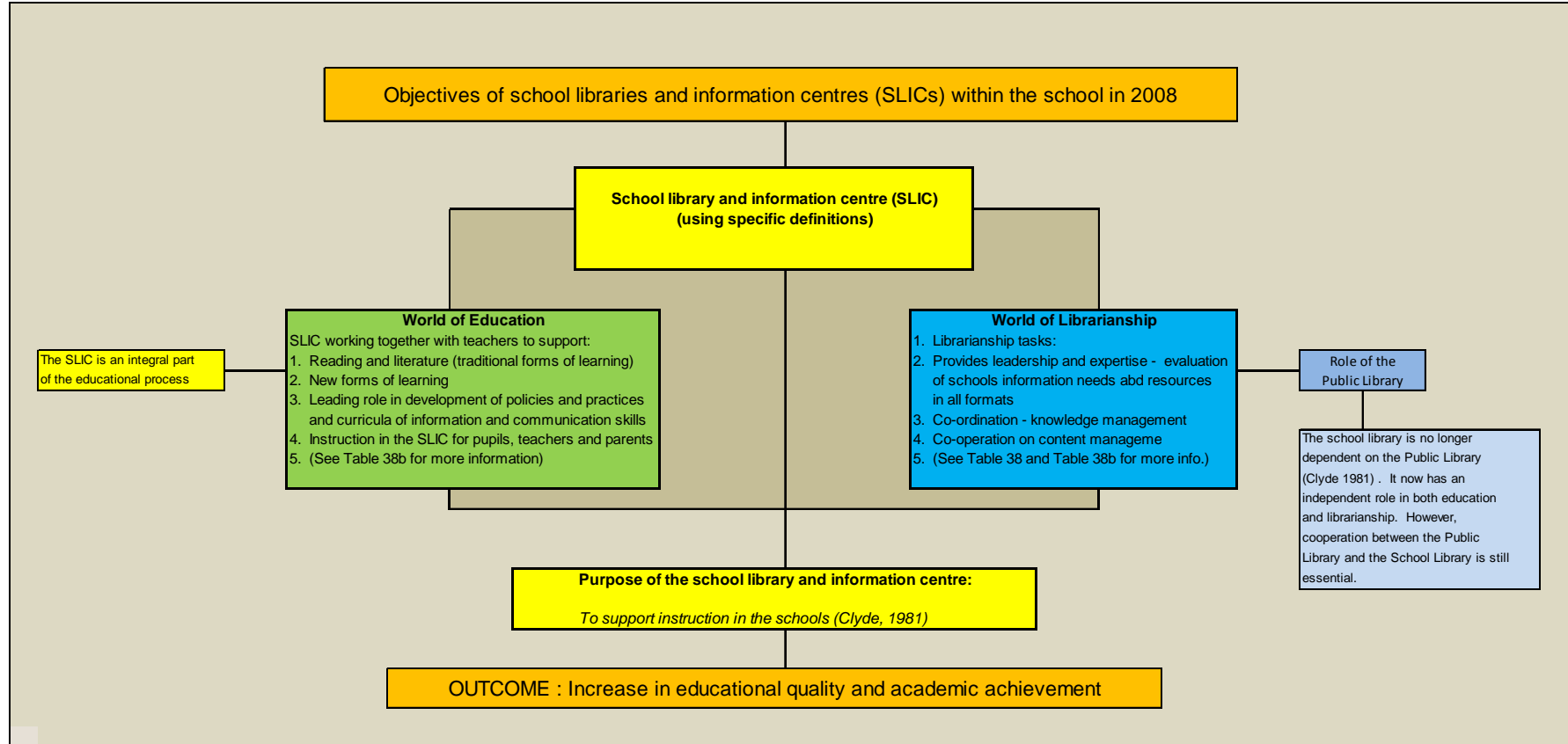
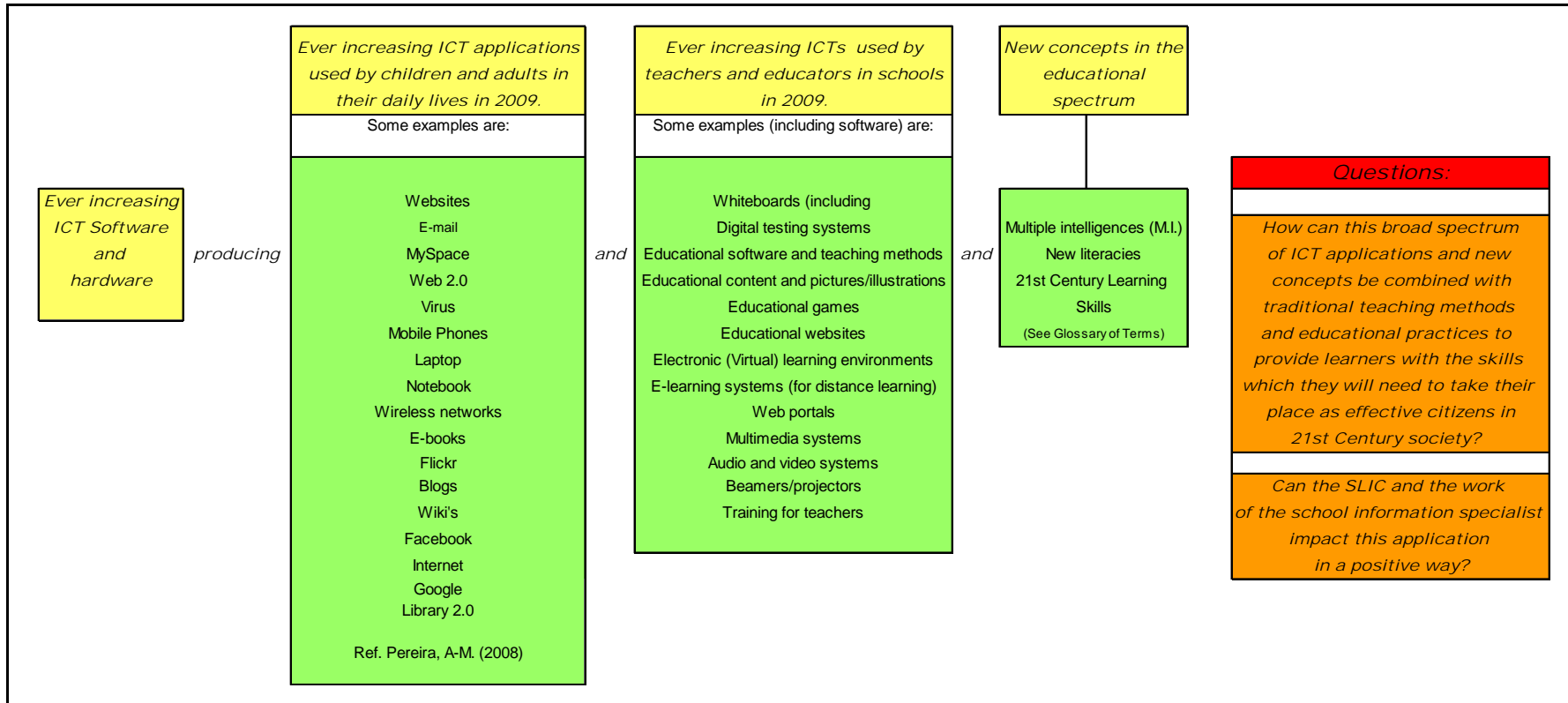


Figure 14

Application of a broad spectrum of ICT applications plus new and traditional educational concepts to promote effective 21st century learning



Note that social changes, including the increase in part-time (female) school staff will also affect this picture.

During the latter part of the twentieth century, education entered a period of change, caused by the implementation of educational reforms, the use of ICT and educational technology and the introduction of new forms of learning into schools. These changes occurred simultaneously. It was agreed at international level that students in countries throughout the world need to learn the 21st century skills which will enable them to take their place in the third information age as productive citizens and lifelong learners. With this in mind, large amounts of national income were made available and have been spent on the application of ICT into schools, for communication, for managerial and administrative purposes, for the acquisition of knowledge, and for the application of new forms of learning. This thesis questions whether or not there was sufficient expertise inside and outside the school in order to implement all these simultaneous changes effectively.

Initially, the introduction of ICT into education was greeted with great excitement and expectations. It was enthusiastically introduced into schools by teachers (and sometimes parents) who could be described as 'computer hobbyists'. This new technology would make learning more interesting and enjoyable. It became apparent that ICT could be used in the implementation of new forms of learning, for pupils at all levels of the academic scale. An increase in academic achievement at all school levels was expected. Less emphasis was placed on traditional academic subjects such as reading, literacy, languages etc., although some teachers tried to use new technologies while teaching these subjects. So much emphasis was placed on the new technologies themselves, that traditional subjects became "less important" and fewer teaching hours were available for them in the roster.

During this study, it gradually became apparent that, since the initial introduction of ICT into schools and the enthusiasm and excitement which surrounded this occurrence, a new set of circumstances have arisen in the educational spectrum. The introduction of educational reforms, new forms of learning, ICT and educational technology into schools have raised certain question and problems, and solutions need to be sought. The Final Conclusions provide a clear vision for approaching and solving these problems. They presents a model (the KILM) for co-operation throughout the (traditional or virtual) school, using the SLIC as a basic element, in order to provide stability and structure as the school community ventures forth into this period of continuing educational change and challenges. The impact which these changes will have on schools in the 21st century needs to be carefully studied and (new) educational policies need to be formulated. Figure 11 (page 241) describes changes which have taken place in schools towards the end of the 20th century. Figure 12, page 242, 12a,

page 243 and 12b, page 244 illustrate the way in which ICT can be introduced, implemented and applied throughout the school in a successful way. Figure 14, page 246 provides a guide for the application of ICT and educational technology to promote educational quality. The role of each of the stakeholders is clarified. The SLIC is part of two different processes – the library process and the educational process. Figure 13, page 245 explains this statement in a simple way and illustrates the SLIC's objectives.

Although international evidence clearly indicates that ICT technical skills need to be acquired as part of a group of 21st century learning standards, this study could find no clear evidence that these new technologies actually influence the acquisition of knowledge in a positive way. This thesis concludes that while a great deal of money has been spent on the **provision** of ICT within the schools, the effectiveness of this investment is not obvious in terms of educational quality. An increase in academic achievement cannot be verified. Emphasis has been placed on the quantitative 'provision' of ICT hardware and software, and not on its application as an educational tool. A further qualitative study needs to be carried out concerning the actual usage of ICT as an educational tool and the results which have been achieved in this area, in order to place this matter into its correct perspective. Data at European level shows that the amount of Purchasing Power Parity (PPP) of Gross Domestic Product (GDP) spent on education has remained fairly constant (see Table 14, page 195 and Table 15, page 197). A further study should look at the costs, to date, of the introduction of ICT into education (not only as an educational tool but also for school management, administration and communication), in order to see if there has been a 'shift' in the total expenditure on education and whether or not this shift has affected educational quality.

The results of this research show that the use of ICT in education is becoming increasingly complex. Specific expertise is needed at different levels throughout the school in order to effectively implement the changes mentioned above. School leaders, educators and teachers are being asked to make decisions about, apply, learn skills and use tools which, in fact, are outside their area of proficiency. In fact, some school leaders, teachers and educators who were unprepared for the continuing changes in educational policy and in the educational use of ICT in the school, are offering resistance. This research and Probert (2009) confirm that these problems are not age-related. This lack of expertise affects the successful introduction of some important new forms of learning. Johnson, Levine, Smith and Smythe, (2009) agree that the information society is in a constant state of change and point to critical challenges for the use of ICT and educational technology in primary and secondary schools, including the need for formal instruction in key new skills. The person who

teaches these skills needs expert knowledge and constant re-training in order to keep abreast of the constant changes and complexity in ICT. These are not skills which can be acquired arbitrarily, in short courses. The question is asked: 'Who should be responsible for teaching media, information and new literacy skills to both teachers and pupils?' In some countries it is agreed that media, information and new literacy skills should be imbedded in the curriculum and should be taught by a professional teacher who has gained credentials in this subject. In others it is an 'extra' subject which is taught 'on the fly', by teachers with no specific credentials in this particular subject. In these cases, the critical importance of these new 21st century learning skills has not been recognised or understood by national policy makers or by the school leadership..

School libraries are now being recognised as very special, important libraries. They differ from other kinds of libraries because they are part of two different but not separate processes – the educational process and the library (or information) process – and require trained staff with different, specific qualifications. They provide an learning environment (traditional and also online) where pupils can learn and practice 21st century skills. The school librarian is also in a position to teach and coach both teachers and pupils in essential 21st century learning skills. The modern school library and information centre (SLIC) - which meets certain quality definitions - and its staff is a dynamic educational engine for the knowledge and information society. It should play a formal role in the educational process and in educational quality, and should not be delegated to an inferior position in either of these processes. This important role needs to be recognised at international and national level by politicians and also by both the library and the educational communities.

International research confirms that the certified school librarian and information specialist (teacher librarian), who is trained at tertiary level in both pedagogy and in library and information science, can affect this situation in a positive way. The correct implementation and optimal use of the school library and information centre (SLIC) can influence educational quality, learning outcomes and academic achievement in this new educational arena. Although the research shows that some school librarians in many countries in Europe do not have LIS training at tertiary level, or a teaching accreditation, it confirms their dedication and commitment to their work and their willingness to undertake additional training. This should be provided where necessary.

While some countries outside Europe, including the U.S.A., Canada and Australia, recognise the importance of the SLIC and the work of the school librarian and information specialist, in many countries in Europe the work and role of the school librarian and information specialist has often been considered to be a less important.

The research shows that the SLIC still has an impact on literacy scores. More research needs to be carried into 'new literacies' and the actual reading comprehension which takes place using ICT, e-readers and other educational technology.

One of the objectives of the initial research at the Kalsbeek College was to describe problems which have arisen in primary and secondary schools during this period of change, and to find out whether or not the implementation of innovations within the school library and information centre could effectively enhance the changing educational process throughout the school as a whole⁵⁵, the ultimate goal being an increase in educational quality and academic achievement. During this original research at local level, the sub-matrix (KILM), as part of an educational strategy for the entire school, evolved. The KILM has already been described as a structural combination of a management system, educational and library (information) disciplines. The successful conclusions to the initial research show that the evolving role of the SLIC, as part of a school-wide educational strategy, does, in fact, provide many answers.

National and international interest in the application of this sub-matrix described resulted in further research. Two broader empirical studies took place at Dutch national and European level. This data-driven collaborative analysis, role analysis and output research will hopefully enable future forecasts of organisational change. The implementation of the actual KILM has become a model for the vision of the school leadership – the wish to provide a learning environment which will facilitate the changes which are taking place within the school – educational reform, the introduction of ICT and also the introduction of new forms of learning, while at the same time maintaining traditional educational values. The KILM provides a structure for assistance and support to teachers in this period of major change. Co-operation throughout the entire school community, as described in Figure 12, page 242 is essential.

The research has also shown that educators and librarians are willing to co-operate and collaborate at local, national and European level, in order to solve these internationally recognised problems. This research therefore advocates a clear vision of co-operation at all these levels between politicians and the educational and library (information science) sectors, in order 'to empower young people as learners, developers, contributors, entrepreneurs and decision-makers' (IFLA, 2008b), so that they can effectively take their place in 21st century society. During this study, the following conclusions have also been reached:

⁵⁵ See the Preface, page 15.

Educational quality and academic achievement Parents and educational systems aim for educational quality and academic achievement for their children (UNESCO, 2009a). Parents want their children to fulfil their potential. The results of this research indicate that since the introduction of ICT into the schools, educational quality has not increased; in fact, it may have declined⁵⁶. Johnson, Levine and Smythe, (2009) question how assessments can take place at different levels in an adequate way. The correct application and exploitation of ICT facilities is much more important than the initial investment in hardware and software (Kennisnet, 2006). A balance between the use of ICT, the implementation of new forms of learning and 21st century learning skills is essential. Only then will there be an increase in academic achievement.

A national policy for ICT in education While educational reforms recommended autonomy for individual schools, this research suggests that a national government policy would have offered more structure during the introduction of ICT, educational technologies, new forms of learning and 21st century skills into the schools. Some governments have now become aware of this fact and are implementing (national) reforms. The conclusions to Chapter 20 make it clear that not only quantitative factors but also qualitative factors are important in the implementation of the KILM. These qualitative factors which have been retained in some countries in the European survey are: the clear structure of and decisive goals for education, defined by the government at national, state and local level; the desire to retain or increase educational quality in the schools; and the provision of the means to achieve these objectives.

The role of the school leadership This research reveals that, while national educational policy directives are also significant, the educational vision of the school leadership is perhaps the most critical factor in the implementation of educational reforms, ICT and new forms of learning throughout the school of the 21st century. The school leadership guides the school through this period of change which has been described. The introduction and use of educational reforms, ICT as an educational tool, educational technology and new forms of learning in some schools has not been as successful as was initially anticipated and expected. The autonomy of individual schools and the (lack of) quality of some members of the school leadership may have contributed to this fact. Not enough thought was given to the way in which the changes should have been implemented throughout the school as a whole. Sufficient expert

⁵⁶ See Graph 2, page 205, Graph 3, page 207 and Graph 4, page 210.

advice may not have been available; in some instances it was provided but not taken. A new national educational policy in Australia attempts to address the qualifications and abilities of school leaders and their role in education, not only at (school) management level, but also at an academic level, in order to try to assess whether or not they are able to carry out these important tasks (Ferrari, 2010).

[The importance of the 'information' \(content\) side of ICT in schools](#) The use of information for the acquisition of knowledge in the third information age is becoming so complex that it needs to be taught in a structured way. Although it is possible to access information using ICT for relatively simple applications, its use for sophisticated purposes, in a number of different languages, is a complex process. The use of (digital) information by pupils and some teachers can be described as 'naive'.

[The importance of definitions](#) Before this study could be carried out effectively, it was essential to establish clear definitions for a number of important terms and concepts, including the 'school library', the 'school librarian', 'educational quality' and 'academic achievement', as described in Section I.

[Diversity of school libraries throughout Europe](#) There is a wide, sometimes unexpected diversity in the school libraries in the 61 countries in this survey.. Differences occur due to various (unavoidable, social, cultural, financial, political) circumstances, as explained in the conclusions to Chapter 22 and in the individual country reports.

[Primary and secondary school libraries](#) The initial, local study began at secondary school level, however in the Dutch national and European studies, some information has also been provided about primary school libraries. It would be valuable to study the differences in the role of school libraries in primary and secondary schools, although clear international definitions would be needed and reliable information and data would need to be collected on these two specific kinds of libraries.

[The effect of the school library and information centre](#) Chapter 22 describes the major impact which educational reforms, new forms of learning and the introduction of ICT into schools have had on school libraries and information centres, especially in countries in Europe which have a high level of financial resources. In many cases, emphasis was placed on quantitative factors (the availability of ICT and educational technology) and not on qualitative factors regarding its application. Figure 11, page

241 and Figure 12, page 243 illustrate these changes in a simple way and offer some suggestions and solutions, related to the infrastructure and co-operation within the school. These Tables show how the trained school librarian, while co-operating and working together with different stakeholders throughout the school, can impact the effect of the changes mentioned above in a positive way. School libraries in middle income and low income countries will gradually be impacted. They could learn a lot from the mistakes which were made by some high income countries.

[A new learning environment](#) The school library and information centre in 21st century digital Europe is a new learning environment which plays an important role in two different processes – the educational process and the library process (Figure 13, page 245). Both processes affect the way in which the SLIC can fulfil its potential. Co-operation should occur at local school level, national level, European level and international level. Figure 11, page 241 and Figure 12, page 242 show how the trained school librarian, while co-operating and working together with different stakeholders throughout the school, can impact the effect of changes which are taking place.

This study reveals that if the use of the school library and information centre is integrated into the educational policy of the school, and when there is clear co-operation between the library and teaching staff, there is nearly always an increase in standards of literacy, in educational quality and in academic achievement. Schools which have good ICT facilities, but where the school library has not been implemented in a structured way into the educational policy of the school by the school leadership, may fall behind when these definitions for academic achievement are applied.

[Knowledge management within the school](#) Expected future changes in the complexity of the ICT situation within the school, described by Johnson, Levine and Smythe, (2009) will mean that issues such as knowledge management and the need for a professional approach to information storage will need to be carefully studied. Once again, the skills of a trained information specialist seem to be indicated.

[Relationships and co-operation with other libraries](#) The SLIC provides a link between the education and the library and information science communities. It is no longer a subsidiary of the public library, instead, it is now an integral part of the educational process within the school itself. It needs to be on the school premises, open at least during school hours if not longer, with an accredited staff which has been trained in both library science and education. Since they all libraries have some similar

(literacy) goals and interests. co-operation with other library organisations is still valuable and worthwhile.

Co-operation between national and international organisations This study has also revealed a certain lack of co-operation between international library and educational organisations. Since the SLIC and the work of the school librarian and information specialist are part of two different processes, they need help and support from national and international organisations which are concerned with these processes, however, during interviews, certain aspects of ‘competition’ were noticed. School librarians and information specialists have mentioned that they are regarded as being relatively unimportant in the international library community. They also mentioned disinterest of some teachers and educational authorities in the work which they do. This thesis expresses the hope that, as a result of this research, ways will be found for national and international educational and library organisations to co-operate in a more effective way, in an atmosphere of mutual respect, in order to support the important, essential work of school libraries and information centres in 21st century education. A further study could examine different forms of co-operation.

Training programmes for the school librarian and information specialist Specific training programmes for school librarians and information specialists, which should provide tertiary level accreditation in both education and library and information science (LIS) are urgently needed. Existing programmes should receive help in revitalising their existing programmes. Short, sometimes commercially oriented courses are not the answer to this problem, but may be helpful on the short term.

Critical Challenges After this research was concluded, other important, research relating to new literacies, 21st century learning skills and the teaching of these skills in the classroom has been published. Johnson, Levine and Smythe (2009, p. 1) try to ‘identify and describe emerging technologies likely to have a large impact on teaching, learning, research, or creative expression within education around the globe’, in primary and secondary education. They identify ‘technologies to watch’ in the 2009-2010 educational environment, e.g. collaborative environments and online communications tools will gain importance. They mention mobiles and cloud computing on the mid-term horizon and on the far horizon smart objects and the personal web are recognised.

Johnson, Levine and Smythe (2009. p. 1) also report that during discussions, teachers mentioned two themes where problems could arise: assessment of

collaborative work that includes blogs, podcasts, and videos, and the difficulty in establishing how much each individual student contributed to or learned from a collaborative project. The second theme was filters, i.e. some new technologies which cannot be used in the school environment because they are filtered. Johnson, Levine and Smythe (2009, p. 1) speak of the need for

‘formal instruction in key new skills (new literacies), including information literacy, visual literacy, and technological literacy. New skills are required of students in writing and communication, different from those of even a few years ago. Students and teachers are both finding it necessary to be technologically adept, to be able to collaborate on a global scale and to understand content and media design. Issues of assessment and integration of new literacies across the curriculum, and of teacher training, are complicated by the overarching need for a fuller understanding of what constitutes new literacy skills. ...

Schools are still using materials developed to teach the students of decades ago, but today’s students are actually very different in the way they think and work. Schools need to adapt to current student needs and identify new learning models that are engaging to younger generations. ...

There is a growing recognition that new technologies must be adopted and used as an everyday part of classroom activities, but effecting this change is difficult. ...

A key challenge is the fundamental structure of the K-12 education establishment.’

Changes in both pedagogical insight and in the curriculum will become essential. The report also reminds the reader that teachers have continuously shown that they have difficulty in realising these changes (Cuban, 2003). The following question remains: Who will teach these new literacies and technological skills?

This successful and fruitful research has, in fact, raised many more questions for future studies. Teachers and educators need to be aware of the evolving picture of the use of ICT by children and young people is described by Wijnberg (2007), so that effective 21st century learning can take place. Figure 14, page 246 partially describes the ever increasing use of ICT as an educational tool and educational technology, and also recognises new (educational) concepts of multiple intelligences, new literacies and new 21st century learning skills. It confirms that schools will continue to face challenges not only in the educational process but also in the use of information within the school, not only due to the continuing introduction of new technologies, but also because of the introduction of new educational concepts into the school curriculum.

Finally, the following quotation is a profound illustration of the opportunity for success or failure:

‘An instrument can teach, it can illuminate; yes, and it can even inspire. But it can do so only to the extent that humans are determined to use it to those ends. Otherwise it is merely wires and lights in a box’.

This statement was made by Edward R. Murrow, at the RTNDA Convention in Chicago, Illinois on October 15, 1958 (Harcup, 2009). At the time he was talking about the new media, television.

Part 5 – Recommendations

Chapter 24 : Recommendations

The most important recommendation of this study is that two different disciplines or processes - the educational process and the library (information) process (as described in Figure 12, page 242) - should work closely together at local, national and international level, in order to achieve an improvement in educational quality and academic achievement in a globalised society. Some recommendations for each specific process are:

From the point of view of the library world National (school) library associations should be encouraged to carry out regular national surveys of school libraries in their own country. Data collected at national level would not only be useful for national policy strategies, but would also provide accurate quantitative and qualitative information for international surveys. Before data collection commences, clear (international) definitions should be provided and should not be left to the discretion of interviewees. New (free) software makes this possible and relatively simple. These surveys should contain qualitative and quantitative questions. They should not only survey the actual physical and digital facilities which school libraries have, but they should also collect data about library staffing and the way in which the educational quality is enhanced by the use of the library, including some indicators described by Heany (2009). Since school libraries are special libraries which have a specific function within the educational process, data related to education and pedagogy should also be collected.

A lobby at national and international level is suggested, for the implementation of a statutory national school library law.

The establishment of national school library associations in countries where they do not exist, is recommended. In some cases there are financial questions which make this difficult, however, according to Clyde (1981) the school library should no longer be dependent upon the public library. It now plays an independent role in both education and librarianship.

Also, the education of young school librarians and information specialists at tertiary level needs to be urgently addressed. Graduates should receive accreditation in both education and library and information science (LIS). Students also need an incentive to follow this training (the prospect of a 'good' job at the end of the training).

From the point of view of the world of education Regular qualitative and quantitative studies should be carried out at local, national and international level, in order to ascertain how ICT and educational technology is actually being used as an educational tool (Cuban, 2003). Costs should be reviewed in relationship to increase in educational quality.

A further study is needed to clearly define the structure of the school of the 21st century, so that 21st century learning skills can be implemented effectively, in order to increase educational quality and academic achievement. New forms of learning, new literacies and 21st century learning skills should also be examined and applied appropriately. This structure should clearly clarify the qualifications and training of those who carry out designated tasks within that structure. Figure 12, page 242 gives a possible example. The study should also define the need for testing and re-training at all levels, and describe how often this re-training should take place.

The use of media and ICT has become an integral part of everyday life. It is essential that the school community learns to use these evolving technologies in a careful and thoughtful way. While technical ICT skills form a part of the school curriculum (in the Netherlands), other information, media, and new literacy skills do not. These essential 21st century learning skills should become a part of the school curriculum and should be taught by a qualified person. The decision to include these new subjects in the curriculum should be made at national level and should not be left to the discretion of the school itself.

A further study at international level should review the skills and qualifications of effective school leaders in a school in the 21st century. The responsibilities of these school leaders and their need for educational vision have increased since the introduction of educational reforms, the use of ICT and educational technology and new forms of learning into the schools. If necessary, additional training should be provided.

The entire school community should receive continuous, specific, (compulsory) instruction and re-training, in order to keep up with the continuously evolving changes in education and in society which have come about since the introduction of ICT into our lives. The effect of a bonus scheme, which would motivate participants to complete their training quickly, should be investigated at national and international level.

Appendix I : Data related to the local research.

Questionnaire distributed at Kalsbeek College as Research Pilot

- A. Distribution letter to Section Principles and class mentors asking pupils in exam classes to complete the questionnaire. 2 September 1999.
- B. Questionnaire dated 27 September 1999.

Use of the school library and the public library by pupils in the final examination class at the Kalsbeek College, Woerden. .

- Question 1. Total number of pupils per town or village related to their examination level:
- Question 2. Use of the school library:
How often do you use the school library?:
every day
1-3 times per week
1-3 times per month.
less than 3 times per month
never
other
- Question 3. Use of the Public Library in town or village of residence:
Do you sometimes use the public library in your town or village of residence?:
1 x each week
1 x per month
Less than 1 x per month
Never
Other

Comparison - Use of the school library / public library in town of residence

- Question 4. Use of a different public library:
Do you sometimes use a public library in a different place?
Yes
No
- Question 5. Use of the school library:
Why do you go to the school library?:

To read newspapers and magazines.
often
sometimes
never
- To borrow books for my reading list.
often
sometimes
never

For book reviews / to make copies (
often
sometimes
never

Information for projects / presentations.
often
sometimes
never

To use the Internet
often
sometimes
never

To borrow CD's / CD-ROM's / to watch video's.
often
sometimes
never
Other Remarks

Use of the public library

Question 6. Use of the public library: Why do you go to the school library?:

To read newspapers and magazines.
often
sometimes
never

To borrow books for my reading list.
often
sometimes
never

For book reviews / to make copies (
often
sometimes
never

Information for projects / presentations.
often
sometimes
never

To use the Internet
often
sometimes
never

To borrow CD's / CD-ROM's / to watch video's.
often
sometimes
never
Other Remarks

Question 7. Membership of the public library : Are you a member of the public library or do you use somebody else's pass?

I am a member

I use my parents' pass

I use my brother's or sister's pass

I use a friend's pass

Other (I don't use a pass – I don't use the public library).

Question 8. Possibility for a cheaper subscription to the public library : If you aren't a members of the public library, would you become one if it cost less money?

Yes

No

Maybe

Not filled in

Publications written by the Media-education committee and distributed to all members of the teaching staff and all pupils in the lower and the upper school, Kalsbeek College in 2004.

'How to write a research paper'.

It describes how pupils should go about doing research for and then present a paper or make a presentation. It also describes the criteria marking

N.B.. This document has recently been revised. Copies are available in English or Dutch upon request.

Appendix II : Data related to the Dutch national surveys and research.

Dutch National Survey, 2005.

- Question 1. Function and age of the school librarian
- Question 2. Function and education of the school librarian
- Question 3. Do you have enough education to carry out all your duties adequately?
- Question 4. Give your opinion about the following questions which are related to your technical ICT skills and your information literacy (content) skills.
- Question 5. Are you prepared to carry out further training as an information specialist?
- Question 6. Are you interested in a teaching accreditation?
- Question 7. I am satisfied with my present job and don't want any changes
- Question 8. Comments (open question)

Appendix III : Individual Country Reports.

Format

Each individual country report is formatted as follows:

- (1) A table (Table 10) summarising the specific conclusions,
- (2) A section containing country observations and comments,
- (3) Specific references for that country.

Note that references which are applicable to all countries are shown in Table 10a and 10b.

Table 10.

Specific Conclusions - Name of Country		Information received
1	Population ranking:	
2	GNI ranking per capita	
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	
4	Adult literacy	
5	Compulsory education	
6	Primary school and secondary school enrolment	
7	School attendance of children from minority groups	
8	PISA score	
9	PIRLS score	
10	Statistics of use of ICT in schools	
11	ICT in the school library 2006	
12	ICT policy in schools	
13	Media literacy	
14	Libraries – general information	
15	LibEcon Millennium Study 2000	
16	School libraries and information centres	
16a	Returned ENSIL surveys	
16b	Number of school libraries	
16c	National school library law	
16d	National school library association	
16e	National survey of school libraries	
16f	Training of teacher librarians	
16g	School libraries with internet access to users	

Table 10a.

References which were used to answer questions 1-15 in Table 10 for each individual country.

Specific conclusions per country		Information received from one or more of the following resources
1	Population ranking	CIA World Factbook 2007 and 2008, Internet World Stats 2008, World Gazetteer 2007. Summarised in Table 11.
2	GNI ranking per capita	World Bank 2008a and 2008b. Summarised in Table 13.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	CIA World Factbook 2007 and 2008, UNESCO, 2007 and 2008. EUROSTAT 2005 and 2006, European Commission 2006. Summarised in Table 14 and 15.
4	Adult literacy	UNICEF 2004, CIA World Factbook, 2007, IFLA/FAIFE World Report 2007, UNDP 2008b. Summarised in Table 25.
5	Compulsory education	World Bank 2008a, World Bank 2005b, UNESCO 2008. Summarised in Table 17.
6	Primary school and secondary school enrolment	UNICEF 2004, World Bank 2008a, UNESCO 2008, Bayou, Gouel and Sauvageot 2005.
7	School attendance of children from minority groups	COE 2008 (Last available report), Amnesty International 2007 (last available report).
8	PISA score	OECD (Organisation for Economic Co-operation and development), 2006
9	PIRLS score	PIRLS 2007, IEA (International Association of Educational Achievement) 2006.
10	Statistics of use of ICT in schools	Korte & Hüsing 2006. Summarised in Table 18.
11	ICT in the school library 2006	Korte & Hüsing 2006.
12	ICT policy in schools	European Schoolnet 2008, per individual country.
13	Media literacy	European Commission 2007
14	Libraries – general information	IFLA/FAIFE World Report 2000 and 2007
15	LibEcon Millennium Study 2000, Singh study 1993	Singh 1993, LibEcon, 2000. Summarised in Table 26.

Table 10b.

References which are used to answer specific questions (16a – 16g) about school libraries, and provide information on education and educational policy in each individual country.

Specific conclusions per country Specific information about School Libraries		Information received from one or more of the following resources
16a	Returned ENSIL surveys	See Chapter 22, p. xxx of main document
16b	Number of school libraries	Information returned to ENSIL surveys plus IFLA/FAIFE World Report 2007
16c	National school library law	Information returned to ENSIL surveys
16d	National school library association	Schniederjürgen (Editor, 2007). IASL 2008 (Portal) plus information returned to ENSIL surveys
16e	National survey of school libraries	Information returned to ENSIL surveys
16f	Training of teacher librarians	Information returned to ENSIL surveys plus EUROEDUCATION.Net 2008, EURYDICE database 2008
16g	School libraries with internet access to users	IFLA/FAIFE World Report 2007
	Other information	
	General (social) information about each country, relative to this study	CIA World Factbook 2007 and 2008, EUROSTAT 2005 and 2006, Internet World Stats 2008, World Gazetteer 2007
	General information on education and educational policy in each country	British Council 2008 (last available report), Eurydice 2008 (last available report), Country Studies 2008 (last available report), EUROEDUCATION.Net 2008 (last available report).

<u>Table of contents</u>	<u>Page.</u>
1. Albania	7
2. Andorra	8
3. Armenia	9
4. Austria	11
5. Azerbaijan	13
6. Belarus	15
7. Belgium (general report – language community not specified)	17
8. Belgium (German-speaking community)	19
9. Belgium (French-speaking community)	21
10. Belgium (Flemish-speaking community)	23
11. Bosnia and Herzegovina	26
12. Bulgaria	28
13. Croatia	30
14. Cyprus	32
15. Czech Republic	34
16. Denmark	37
17. Estonia	40
18. Finland	43
19. France	46
20. Georgia	49
21. Germany	51
22. Greece	56
23. Hungary	59

24. Iceland	62
25. Rep. of Ireland	64
26. Italy	68
27. Kazakhstan	71
28. Kosovo	73
29. Kyrgyzstan	76
30. Latvia	78
31. Liechtenstein	81
32. Lithuania	83
33. Luxembourg	85
34. FYR of Macedonia	87
35. Malta	89
36. Moldova	92
37. Monaco	94
38. Montenegro	96
39. Netherlands	98
40. Norway	101
41. Poland	106
42. Portugal	109
43. Romania	113
44. Russian Federation	117
45. San Marino	120
46. Serbia	122
47. Slovakia	126
48. Slovenia	129
49. Spain	132

50. Sweden	135
51. Switzerland	138
52. Tajikistan	140
53. Turkey	144
54. Turkmenistan	148
55 and 56. United Kingdom (England) plus information for the UK as an entire country, in cases where no specific country was mentioned.	150
57 United Kingdom (Northern Ireland)	157
58 United Kingdom (Scotland)	161
59 United Kingdom (Wales)	163
60 Ukraine	166
61 Uzbekistan	169.

Name of country: Albania - AL

Indicators which are relevant to this study.

- Member of the Council of Europe
- Potential member of the European Union (EU)

Specific conclusions – Albania

1	Population ranking:	38 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI world rank – 115 25.4% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 45 2.9% of GDP
4	Adult literacy	98.7% (see note in Other Conclusions)
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	Achieved UPE or soon will.
7	School attendance of children from minority groups	See para 9d.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRA study
11	ICT in the school library 2006	Did not take part in EMPIRA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Returned ENSIL surveys	No
16b	Number of school libraries	1,700
16c	National school library law	Yes
16d	National school library association	Unknown
16e	National survey of school libraries	Unknown
16f	Training of teacher librarians	No
16g	School libraries with internet access to users	Less than 20%

With the help of international projects, it would appear that Albanian government is attempting to improve the standard of education in this country. It should be noted however, in para 2, that there is a sharp decrease in education at the end of compulsory education.

Specifically, the introduction of school libraries into a large number of (primary) schools is a very important factor in the attempt to meet these objectives. Information about the number of (primary) school libraries and the surrounding activities is very encouraging.

Information about the structure of the educational system in Albania may be unreliable.

UNICEF reports have cast doubts on the adult literacy figures which have been provided.

It should be noted that although information was provided about Albania for the IFLA/FAIFE World Report 2007, the responding institution requested to remain anonymous. This fact casts doubt on some of the information which has been provided in the IFLA/FAIFE World Report.

Specific References: Albania

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

UNICEF (United Nations Children's Fund), New York, N.Y. (2008)
http://www.unicef.org/infobycountry/albania_42945.html Accessed on 4 May 2008

UNICEF (United Nations Children's Fund), New York, N.Y. (2008a)
http://www.unicef.org/infobycountry/albania_background.html Accessed on 4 May 2008.

UNICEF (United Nations Children's Fund), New York, N.Y. 2008c. http://www.unicef.org/albania/education_6445.html
Accessed on 4 May 2008

Name of country: **Andorra - AD**

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – Andorra

1	Population ranking:	50 from 54 (entire) countries in this survey
2	GNI ranking per capita	Unknown
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 46 2.3% of GDP
4	Adult literacy	Unclear – see Para 2.
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	Not information available about UPE. Statistics are relatively low. .
7	School attendance of children from minority groups	See notes in “Other Information”.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	25
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	81-100%

Andorra is a small country. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

Not a lot of information is available, in English about the quality of the education of Andorra’s children, or about the introduction of ICT into the schools.

The percentage of GDP which Andorra spends on education is considerably lower than in many other countries in this survey – it scores as number 46 in the European ranking.

A bit more is known about libraries and school libraries in Andorra. There are 25 schools with school libraries; a large percentage of these school libraries are connected to the Internet, and that local internet content is very well represented. It is now known whether these school libraries are in primary or secondary schools. Nothing is known about the training or retraining of teacher librarians in Andorra.

Specific References: Andorra

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

None.

Name of country: **Armenia - AM**

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions - Armenia.

1	Population ranking:	40 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI world rank – 123 50.9% of population below national poverty line
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 43 3.2% of GDP
4	Adult literacy	99.4%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	Not information available about UPE. Statistics are relatively low. .
7	School attendance of children from minority groups	See para 10f.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Did not return information to IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	1353
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

Armenia is a poor country. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

Very little current information is available in the English language about schools in Armenia. Some information about the structure of the educational system in Armenia may be unreliable.

The following facts have been confirmed:

- There was 100% adult literacy in Armenia as early as 1960.
- Until the end of the communist era, Armenian education followed the standard Soviet model.
- Today schools in Armenia are free of charge and children are taught in the Armenian language.

Some information about libraries and school libraries in Armenia is available, for example there are 1353 school libraries in Armenia in 2000. Taking into account this figure which was supplied in 2000 (1,353) and the number of primary and secondary schools supplied by the Country Studies Report (1,307), it could be assumed that most primary and secondary schools have a library.

It may be assumed that these school libraries were established during the communist era. Nothing is known about their facilities or collection. It is possible that not a great deal has changed in these libraries since the communist era through lack of funding. Nothing is known about the language of languages of the collection (Armenian?, Russian?, other minority languages?)

Also, nothing is known about the training or re-training of teacher librarians in Armenia.

Specific References: Armenia

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

WORLD BANK 2005. *Expanding Opportunities and building competencies for young people : A new agenda for secondary education, Chapter 8: A structure of Education Systems and Compulsory Education.*
http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079967208/547671-1120139762595/appendix_A.pdf Accessed on 28 September 2008.

Name of country: Austria/Österreich/Oostenrijk - AT

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Austria

1	Population ranking:	22 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 19
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 19 5.4% of GDP
4	Adult literacy	98%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	Unclear
8	PISA score	Increase in scores in 2006 – European score 14 of the 36 European countries which took part in 2006
9	PIRLS score	European score 13 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	Supplied by European Schoolnet and by Bayou, 2005 – see below.
11	ICT in the school library 2006	17% in 2006
12	ICT policy in schools	Supplied by European Schoolnet – see below.
13	Media literacy	See conclusions below
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 but no specific information about school libraries
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unclear
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See para 12.
16h	School libraries with internet access to users	81-100%

It is one of the wealthier countries in this survey and ranks as number 20 (world rank) in order of GNI per capita July 2008 (in US dollars), Atlas method. Its European ranking is number 13.

The percentage of GDP which Austria spends on education is lower than in many other prosperous countries. Statistics show that in 2001, Austria spent more of its GDP on education than in 2005, thus it has decreased its expenditure on education.

The information shown in the above report records statics which could be said to be similar to those reported by a number of other prosperous countries in Europe. In some instances, however, it could be said that education is “lagging behind”. Of course, various reasons for low scores in certain reports are described in detail in the specific reports.

The Federal Ministry for Education, the Arts and Culture has set as its objectives:

“an optimal use of e-learning and ICT, development of first class contents and new teaching and learning methods, coverage of new target groups among teachers and learners as well as provision of ICT tools for the modernisation of the school management.

Media Literacy is one of the integrated principles in Austrian education, It is specified in the media education decree of the ministry of education, science and culture. Media education, as a part of media pedagogy, has been an educational principle since 1973. A new Fundamental Decree on Media Education, published in

2001, aims at critically and analytically integrating into education both the traditional mass media and the net media, particularly the internet.

A new policy for educational reform is described in para 9 (e).

A description of ICT facilities in schools has been provided. Expenditure on these facilities is high, however the researcher would point out that although these facilities are physically present in the schools, there is no indication of:

- the quality of this equipment
- whether or not the equipment is actually working properly on a daily basis,
- the skills of teachers in the use of this equipment, and most important of all
- how pupils use this equipment to acquire knowledge and research skills. .

Austria has set learning objectives have been established for the teaching of media literacy, information literacy and research skills in the library.

According to the information which has been received, it could be concluded that Austria does not have a strong tradition of school librarianship in primary and secondary schools. Very little information about school libraries in lower secondary schools or primary schools, in the English language, has been found, however, strangely enough, information about the use of computers in school libraries in Austria was available. However the word “school library” has not been defined, and therefore the school principals who has completed the questionnaire have interpreted this term in his or her own way.

A team of multimedia school librarians (teachers) have attempted to implement multimedia school libraries into 450 upper secondary schools (allgemein bildende höhere schulen) . The description of these centres, including the work carried out by the teachers who run them, is unavailable in English. It is unclear where and when the teachers who work in the multimedia school libraries obtained their library qualifications. Also, no information has been found about the co-operation between the library and other subject groups throughout the school. An Austrian expert stated that the school librarian would need to become a pedagogical advisor for other teachers throughout the school. No evidence has been found (in English) that this has occurred.

The training of school librarians was described as follows: University librarians have an academic degree. So called “Fachhochschulen” offer some sort of training for librarians and information management (<http://www.fh-burgenland.at>) . School librarians in Austria are always teachers who have some training for running a school library. This explains why there is no special association for school librarians.

Specific References: Austria

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

ENIL (European network of information literacy), 2008.

<http://www.ceris.cnr.it/Basili/EnIL/gateway/austria/groupMSL.jhtm> Accessed on 21 June 2008.

EUROSTAT. European Commission , 2005. *UOE and National Accounts, 2005. Key Data on Education in*

Europe, 2005. http://eacea.ec.europa.eu/ressources/eurydice/pdf_images/052ENXX010D01x0101f.pdf

Accessed on 1 October 2008.

EUROSTAT. Europese Gemeenschappen , 2006. *Belangrijke feiten en cijfers over Europa en de Europeanen.*

(Important facts and figures about Europe and the Europeans). Brussels : Europese Commissie.

FEDERAL Ministry for Education, Science and Culture (BMBWK) (2003). *The multimedia school library.*

ENIL Network. <http://www.ceris.cnr.it/Basili/EnIL/gateway/austrai/multimedia.htm> Accessed on 10 February 2008.

IASL (International Association of School Librarianship, 2002. *Assembly of Associations Communiqué 2002. Country:*

*Denmark.*The 2002 IASL Conference, Petaling Jaya, Malaysia

http://www.iasl-online.org/events/conf/reports/conference_report2002.html Accessed on 13 November 2008.

LIBRARY SERVICE FOR SCHOOLS (Bibliotheken-Service für Schulen) <http://www.buchzeit.at> Accessed on 24

January 2008.

School Libraries Work : *Academic Research Paper.* (2006). Scholastic Library Publishing.

http://www.scholastic.com/librarians/printables/downloads/slw_2006.pdf Accessed on 24.11.07

Name of country: Azerbaijan - AZ

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – Azerbaijan

1	Population ranking:	23 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 126 49.6% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 48 2.1% of GDP.
4	Adult literacy	98.8%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	NER (Net Enrolment Rates) of 85%. Not expected to meet the Millennium development goals for universal primary education (UPE) by 2015.
7	School attendance of children from minority groups	Unclear
8	PISA score	Low scores – well below the norm. European score 34 of the 36 European countries which took part in 2006
9	PIRLS score	Did not take part in this test.
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Azerbaijan did not take part in the IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	Unknown
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	Unknown

Azerbaijan is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research. Also, it did not take part in the IFLA/FAIFE World Report 2007. It can be concluded that very little current information is available in the English language about schools in Azerbaijan. However, from the information shown above, the following is known:

- There was 98.8% adult literacy in Azerbaijan in 2007.
- The percentage of GDP which Azerbaijan spends on education is very low, and appears to have decreased since 2004 - it scores as number 48 in the European ranking.
- Lack of funds is a problem which is frequently mentioned in the information contained above. This is somewhat surprising as it could be argued that Azerbaijan has certain advantages from its oil income.
- Until the end of the communist era, education in Azerbaijan followed the standard Soviet model.
- The primary and secondary school enrolment rate gives cause for concern.

- Of the 36 countries (in Europe, including former members of the USSR) which took part in the PISA testing 2006, Azerbaijan scored poorly and was placed at 34. However, it should be noted that not all countries covered by the study took part in the PISA testing 2006.

Since 1999, signs of economic recovery and stability have been accompanied by greater state attention to and investment in education. However, in 2008 UNESCO has expressed concern Azerbaijan will meet the Millennium Development Goals for Universal Primary Education.

The Council of Europe (Azerbaijan is a member) – ECRI (European Commission against Racism and Intolerance) – has raised questions about the availability of education to children of non-citizens without legal status and about the teaching of minority languages.

Although it has been established that school libraries exist in Azerbaijan (NAZAROVA, 2000), very little up-to-date information could be found about them (in English). It may be assumed that these school libraries were established during the communist era, but nothing is known about their present facilities or collection. Nazarova (NAZAROVA 1998) reports that very little has changed in these libraries since the communist era. The researcher attempted to contact Nazarova in order to obtain recent information, but was unsuccessful.

The education of (school) librarians takes place at an independent library school at Baku State University. The researcher has attempted to contact the Department of Library Studies at this university, and has requested further information (in English). At the time of writing, this has not been received.

The researcher was fascinated by the descriptions of the ancient libraries which existed in this country, and its library tradition and culture (NAZAROVA, 2000) and if possible, would like to carry out a further study on libraries in this country.

Specific References: Azerbaijan

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

BAKU STATE UNIVERSITY, Department of Library Studies, 2008. <http://www.ceebd.co.uk/ceed/un/az/az003.htm>
Accessed on 28 August 2008.

NAZAROVA, Muzhgan, 2000. *Library-based programs to promote literacy : do they exist in Azerbaijan?* Jerusalem, Israel : 66th IFLA Council and General Conference, Jerusalem, Israel, 13-18 August, 2000
<http://www.ifla.org/IV/ifla66/papers/124-176e.htm> . Accessed on 10 February 2008.

NAZAROVA, Muzhgan, 1998. *Libraries in Azerbaijan: Reaching Forward* . Libraries: Global Reach – Local Touch . Chicago : American Library Association, <http://azla.aznet.org/azla/Archive/Reaching/reaching.html> Accessed on 4 August 2008. <http://www.ifla.org/IV/ifla66/papers/124-176e.htm> . Accessed on 10 February 2008.

Name of country: Belarus - BY

Indicators which are relevant to this study.

- Candidate member of the Council of Europe (12.03.1993)

Specific conclusions – Belarus.

1	Population ranking:	20 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 102 41.9% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 10 6.1% of GDP.
4	Adult literacy	99.6%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	Belarus is expected to meet the Millennium development goals for universal primary education (UPE) by 2015.
7	School attendance of children from minority groups	Unclear
8	PISA score	Did not take part in this test.
9	PIRLS score	Did not take part in this test.
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Belarus did not take part in the IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	Unknown
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

Belarus is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research. It has been a candidate member of the Council of Europe since 1993.

The percentage of GDP which Belarus spends on education is much higher than in other countries in the same economic category – it scores as number 10 in the European ranking. This would seem to indicate that this country places much importance on the education of its children. Belarus is expected to achieve the NER Millennium Goals for UPE (Universal Primary Education), even though the growth rate is low. This is due to the fact that the number of children in the country has reduced dramatically after 1990, possibly as a result of the Chernobyl catastrophe.

Although Belarus obtained independence from the Soviet Union in 1991, it has retained closer political and economic ties to Russia than any of the other former Soviet republics.

Very little information is available, in English, about education in Belarus. No specific information about school libraries in Belarus, in the English language, was located.

Belarus continues to be affected by the aftermath of the Chernobyl accident.

Specific References: Belarus

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

UNICEF (United Nations Children's Fund) (2008)

http://www.unicef.org/infobycountry/belarus_background.html Accessed on 4 May 2008.

Name of country: Belgium/Belgique/België (general report – language community not specified) - BE

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

N.B. In the interest of clarity, the researcher has prepared three different summaries about Belgium, because the great differences in the situations in education and (school) libraries in the Flemish, French and German speaking communities of Belgium, plus a general report which contains information which was found but where no specific language community was mentioned.

Special Conclusions - Belgium (entire country).

1	Population ranking:	16 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 21
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 11 6.0% of GDP
4	Adult literacy	99%
5	Compulsory education	13 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See notes in “Other Information”.
8	PISA score (entire country but excluding the German-speaking community)	See para 3 – decrease in scores in 2006 – European score 6 of the 36 European countries which took part in 2006
9	PIRLS score	See testing of individual communities
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	23% in 2006
12	ICT policy in schools	See individual communities
13	Media literacy	Belgium (entire country) did not take part in this survey.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 but no specific information about school libraries. Separate information, per Community
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Separate information, per Community
16c	Number of school libraries	Unclear
16d	National school library law	Separate information, per Community
16e	National school library association	Separate information, per Community
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	Separate information, per Community

Some of the information shown above is relevant to the entire country of Belgium. In other cases, the separate language Communities (Flemish, French and German-speaking), which are responsible for education within their own individual community, have also submitted individual reports. The results in these individual reports differ greatly from one Community to the next. For this reason, in this study, a separate report has also been submitted on each individual Community.

It is important to note that Belgium (Flemish and French Communities) scored very well in the PISA testing in 2003 and 2006, although the overall score (including the reading score) was lower in 2006 than it was in 2003, Also the Flemish Community scored well in the PIRLS 2006 testing.

Statistics show that in 2001 Belgium (entire country) spent more of its GDP on education than in 2004 (CIA, 2007), thus it has decreased its overall expenditure on education.

Education of school librarians in Belgium. A list of institutions offering library and archive education can be found on the VVBAD website http://www.vvbad.be/00e_instap/Opleidingen.html). Most of these 'library schools' are not part of colleges for higher education. The list only mentions institutions in Flanders and Brussels. Relevant information on library or archive education in Wallony. (French speaking Belgium) has not been located.

Please refer to the separate conclusions for the three different Communities.

Specific References: Belgium (entire country)

General references are explained on pages 4-8 of this document. Specific references for Albania are as follows:

None.

Name of country: Belgium/Belgique/België (German-speaking community) - - BE

Indicators which are relevant to this study.

The entire country of Belgium is:

- Member of the Council of Europe (the entire country)
- Member of the European Union (EU) – (the entire country)

N.B. In the interest of clarity, the researcher has prepared three different summaries about Belgium, because the great differences in the situations in education and (school) libraries in the Flemish, French and German speaking communities of Belgium, plus a general report which contains information which was found but where no specific language community was mentioned.

Specific conclusions – Belgium (German-speaking Community)

1	Population ranking:	The German-speaking Community of Belgium has a population of approx. 73,000 people (slightly larger than the population of Andorra), which ranks as nr. 50 from 54 (entire) countries in this survey
2	GNI ranking per capita	See information Belgium (entire country)
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	See information Belgium (entire country)
4	Adult literacy	See information Belgium (entire country)
5	Compulsory education	See information Belgium (entire country)
6	Primary school and secondary school enrolment	See information Belgium (entire country)
7	School attendance of children from minority groups	See information Belgium (entire country)
8	PISA score (German-speaking community, 2005))	The scores of the German-speaking community in 2003 were very slightly below the norm, except in Maths.
9	PIRLS score	The German-speaking community did not take part in the PIRLS study (2006 report)
10	Statistics of use of ICT in schools	Unavailable in the referenced report - See information Belgium (entire country)
11	ICT in the school library 2006	Unavailable in the referenced report - See information Belgium (entire country)
12	ICT policy in schools	Unavailable in the referenced report - See information Belgium (entire country)
13	Media literacy	The German-speaking community did not take part in this survey.
14	Libraries – general information	The German-speaking community did not return individual information to the IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	8 (secondary school libraries)
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	No
16g	Training of teacher librarians	Training course being prepared
16h	School libraries with internet access to users	100%

It is important to note that the German-speaking Community of Belgium did not take part, as a separate entity, in many of the studies which are mentioned above.

However, the interest of the educational authorities in the quality of education is very important. They have made statements regarding the need for greater professionalism on the part of teachers and school leaders.

They also recognize that educational methods need to be adapted to meet the needs of pupils and society. Also, they are of the opinion that the qualifications of secondary school teachers need to be reconsidered. They have also expressed interest in an external evaluation of secondary schools are being considered. Testing of these ideas will begin in school year 2008-2009.

In the opinion of the researcher, these attitudes show a definite interest in the real situation in secondary schools today, and how this can be improved in order to influence educational quality and academic achievement. Although the size of the community and the number of secondary schools in the community make it simpler to implement these kinds of educational reforms, nevertheless these attitudes are commendable.

Information about school libraries in primary schools has not been found.

It would also be interesting to see whether or not the statistics for the use of ICT in schools in Belgium (entire country) (Korte en Hüsing, 2006) vary from the statistics the German-speaking Community (the specific statistics for secondary schools in the German-speaking Community may be higher), but these questions would need to be checked in a further study.

The implementation of the school library and information centre in secondary schools as a means for educational quality and academic achievement shows initiative and vision. However the researcher would like to know the extent of the actual library science knowledge of the teachers who are running the school libraries. More details about the actual library science courses which they have taken (length of course, level, quality, name of the institution providing these courses) are desirable, in order to establish whether or not these teachers have the balance of teaching and library skills which are specified in the IFLA/UNESCO School Library Manifesto and the IFLA/UNESCO School Library Guidelines.

It is to be hoped that these initiatives, implemented by the Ministry of Education of the German-speaking community of Belgium, will continue.

Specific References: Belgium (German-speaking community)

EURYDICE, 2008. *National summary sheets on education systems in Europe and ongoing reforms. Country : Belgium – German-speaking Community.* Brussels : Directorate-General for Education and Culture.

Name of country: Belgium/Belgique/België (French-speaking community)- BE

Indicators which are relevant to this study.

The entire country of Belgium is:

- Member of the Council of Europe
- Member of the European Union (EU)

N.B. In the interest of clarity, the researcher has prepared three different summaries about Belgium, because the great differences in the situations in education and (school) libraries in the Flemish, French and German speaking communities of Belgium, plus a general report which contains information which was found but where no specific language community was mentioned.

Specific conclusions – Belgium (French speaking Community).

1	Population ranking:	See information Belgium (entire country)
2	GNI ranking per capita	See information Belgium (entire country)
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	See information Belgium (entire country)
4	Adult literacy	See information Belgium (entire country)
5	Compulsory education	See information Belgium (entire country)
6	Primary school and secondary school enrolment	See information Belgium (entire country)
7	School attendance of children from minority groups	See information Belgium (entire country)
8	PISA score (French-speaking community).	See information Belgium (entire country)
9	PIRLS score	European score 23 in 2006 of the 27 European countries which took part in 2006. The French-speaking community's score was the norm. This score was lower than that of the Flemish-speaking community.
10	Statistics of use of ICT in schools	Unavailable in the referenced report - See information Belgium (entire country)
11	ICT in the school library 2006	Unavailable in the referenced report - See information Belgium (entire country)
12	ICT policy in schools	See para 6.
13	Media literacy	The French-speaking community did not take part in this survey.
14	Libraries – general information	The French-speaking community did not return individual information to the IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

It is important to note that Belgium (Flemish and French Communities) scored very well in the PISA testing in 2003 and 2006, although the overall score (including the reading score) was lower in 2006 than it was in 2003. The French Community scored quite a lot lower than the Flemish Community in the PIRLS 2006 testing. From these statistics, it could be concluded that the standard of education in the French-speaking community is lower than in the Flemish-speaking community,

General background information, supplied to the Eurydice database in 2008 by the French Community refers to school reforms, which should:

- a. *Increase in the education level of the school population,;*
- b. *Improved performance;*
- c. *Increase the amount of time in which the pupils receive lessons;*
- d. *Better preparation of teachers;*
- e. *Give pupils and teachers tools to acquire knowledge*

The objectives (a), (b) and (d) above are extremely important in the context of this research. Further information about concrete priorities for reform in 2006/2007 are to be found in the referenced Internet link (Contrat pour l'école, 2006).

A report has been found on the use of ICT in schools in the entire country Belgium (entire country) – (Korte & Hüsing, 2006).

A separate report on the overall ICT policy in schools the French Community (European Schoolnet, 2008) has also been located.

Information supplied to the European Schoolnet in 2003 (European Schoolnet, 2003), describes the general objectives with regard to the introduction of ICT into schools, but very clearly accentuates the autonomy of schools in this regard. It refers to the training of teachers with regard to the **technical** use of ICT, but learning objectives such as the teaching of media literacy, information literacy and research skills in the library are not mentioned. International research provides evidence that the academic achievement improves when students learn these skills)

It has been difficult to locate information about school libraries in the French Community. There does not appear to be a school library association for this Community. Any reference which this researcher could find, in English, about school libraries in the French Community was more than 10 years old.

Specific References: Belgium (French-speaking community)

- ASSOCIATION Belge de Documentation. Groupe "Formation de Utilisateurs" et ReCoDa (Ed.). 1997. *La bibliothèque*
a. *Compte rendu du colloque organise le 15 octobre 1996. Bruxelles. Gembloux: ABC.u coeur de projet pédagogique*
- BERNARD, Paulette (editor), 1997. IFLA (International Federation of Library Associations). *Resource book for School Libraries and Resource Centers*. IFLA Publications 79. Munich : K. G. Saur
- BODART, Jacques ... et al. 1995. *Bibliothèque, Centre de documentation et d'information: guide pour une action de qualité*. Liege : Fédération de l'enseignement fondamental catholique, Secrétariat général de l'enseignement catholique. 21 p.
- CONTRAT POUR L'ÉCOLE, 1997. *Contract for School*. <http://www.contrateducation.be/index.asp> and http://www.contrateducation.be/contrat_presentation.asp Accessed on 16 August 2008.
- CONTRAT POUR L'ÉCOLE, 2006. *Contract for School*. <http://www.contrateducation.be/bddcstrateg/documents/fichiers/dossier%20de%20presse%20rentree%20scolaire%202006.pdf> Accessed on 16 August 2008.
- EUROPEAN SCHOOLNET, 2008. Country report: Belgium (French Community). http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.
- EUROPEAN SCHOOLNET, 2008. Country: Belgium (French Community). <http://www.europeanschoolnet.org/ww/en/pub/eun/network/belgium.htm> Accessed on 25 August 2008.
- EURYDICE, 2008. *National summary sheets on education systems in Europe and ongoing reforms. Country : Belgium – French speaking Community*. Brussels : Directorate-General for Education and Culture.
- PARENT, Yvette. 1991. *Bibliothèques publiques et bibliothèque scolaires en Communauté française de Belgique*. In: *Actes du Séminaire international sur la création de modèles de jumelages institutionnels à l'intention de bibliothèques de Susdet du Nord*, Ottawa 20-21 juin 1991., Ottawa : Banque Internationale d'information sur les états francophones, pp. 41-46.

Name of country: Belgium/Belgique/België (Flemish / Dutch-speaking community) - BE

Indicators which are relevant to this study.

The entire country of Belgium is:

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Belgium (Flemish-speaking Community)

1	Population ranking:	See information Belgium (entire country)
2	GNI ranking per capita	See information Belgium (entire country)
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	See information Belgium (entire country)
4	Adult literacy	See information Belgium (entire country)
5	Compulsory education	See information Belgium (entire country)
6	Primary school and secondary school enrolment	See information Belgium (entire country)
7	School attendance of children from minority groups	See information Belgium (entire country)
8	PISA score (Flemish-speaking community).	See information Belgium (entire country)
9	PIRLS score (Flemish-speaking community).	European score 8 of the 24 European countries which took part in 2006. The Flemish-speaking community's score was well above the norm (higher than that of the French-speaking community).
10	Statistics of use of ICT in schools	Unavailable in the referenced report - See information Belgium (entire country)
11	ICT in the school library 2006	Unavailable in the referenced report - See information Belgium (entire country)
12	ICT policy in schools	See para 6.
13	Media literacy	The Flemish-speaking community did not take part in this survey.
14	Libraries – general information	The Flemish-speaking community returned IFLA/FAIFE World Report 2007 but there was not a lot of information given about school libraries
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes – entire country
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unknown
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	No
16g	Training of teacher librarians	See Vermeulen, 2008 and report for the French speaking community.
16h	School libraries with internet access to users	81-100%

The Flemish Community of Belgium could be considered to have a high quality educational system. This is reflected in the PISA testing in 2003 and 2006 (entire country, excluding German-speaking community), although the overall score (including the reading score) was lower in 2006 than it was in 2003. Also the Flemish Community scored well in the PIRLS 2006 testing.

General background information, supplied to the Eurydice database in 2008 by the Flemish Community refers to school reforms, which should:

- a) *Increase in the education level of the school population,;*

- b) *Improved performance;*
- c) *Increase the amount of time in which the pupils receive lessons;*
- d) *Better preparation of teachers;*
- e) *Give pupils and teachers tools to acquire knowledge*

The objectives a), b) and e) stated above are extremely important in the context of this research. Further information about concrete priorities for reform in 2006/2007 are to be found in the referenced Internet link (Contrat pour l' école, 1997).

A report has been found on the use of ICT in schools in the entire country Belgium (entire country) (Korte & Hüsing, 2006).

A separate report on the overall ICT policy in schools the Flemish Community (European Schoolnet, 2008) has also been located. Information supplied to the European Schoolnet in 2003 (Insight, 2003) , describes the general objectives with regard to the introduction of ICT into schools, but very clearly accentuates the autonomy of schools in this regard. It refers to the training of teachers with regard to the **technical** use of ICT, but learning objectives such as the teaching of media literacy, information literacy and research skills in the library are not mentioned. International research provides evidence that the academic achievement improves when students learn these skills (School Libraries Work, 2006).

However, recent research carried out at the University in Gent (Tondeur, Braak & Valcke, 2006) reflects the fact that educators in the Flemish Community are beginning to look very carefully at what as actually happened during the introduction of ICT into schools, and how this has affected the pupils, the teachers, the school community as a whole and, most important of all, the quality of educational achievement within the schools. This thoughtful approach leaves room for further investigation into the role played by the school library and information centre (sometimes referred to above as an Open Leercentrum), run by a qualified school librarian (teacher-librarian) and information specialist. International research clearly shows that good school libraries, run by a professionally trained teacher-librarian, are responsible for raising the educational achievement within the school.

The information shown above indicates that school librarians (teacher-librarians with university level qualifications) are presently not being trained in Belgium. They have no clear place (salary or conditions) in the educational system of the Flemish Community. Reference to information provided by the German-speaking Community indicates that this small community has recognized the relevance of the work of teacher-librarians and is taking to steps to implement good school library practice in secondary schools. Learning objectives have been established for the teaching of media literacy, information literacy and research skills in the library.

It is very important to note that, within the situation which exists at the present time, the Flemish Associations of Librarians, Archivists and Documentalists. (VVBAD).has been most supportive of school librarianship. Also, groups of school librarians from the Netherlands (LWSVO - Dutch Association of School Librarians) and the Flemish Community sometimes join forces to promote school librarianship in both countries. This is possible as people from these two relatively small regions speak a common language (Dutch).

Specific References: Belgium (Flemish/Dutch -speaking community)

EUROPEAN SCHOOLNET, 2008. Country report: Belgium (Flemish Community).

http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Belgium (Flemish Community).

<http://www.europeanschoolnet.org/ww/en/pub/eun/network/belgium.htm> Accessed on 25 August 2008.

EURYDICE, 2008 . *National summary sheets on education systems in Europe and ongoing reforms. Country Belgium (Flemish Community). Brussels : Directorate-General for Education and Culture.*

Flanders Accessed on 9 June 2008.

IASL (International Association of School Librarianship, 2006. *Assembly of Associations Communique 2008. Country: Belgium. The 2008 IASL Conference, Lisbon, Portugal*

<http://www.iasl-online.org/members/communique/assofass2006c.htm#dbv> Accessed on 21 Aug. 2008

IEA. International Association of Educational Achievement. 2006. *PIRLS (Progress in International Reading Literacy Study) International Study Center, 2006. International Student Achievement in Reading. Chapter 1, exhibiy 1.1 : Distribution of Reading Achievement.* Boston, Ma : Lynch School of Education, Boston College.

TONDEUR, J, BRAAK, J. van and VALCKE, M. (2006) *Curricula and the use of ICT in education: Two worlds apart?* (Ghent : Department of Education, Ghent University. Published in British Journal of Educational Technology (Online Early Articles). doi:10.1111/j.1467-8535.2006.00680.x .
<http://www.blackwell-synergy.com/doi/abs/10.1111/j.1467-8535.2006.00680.x?cookieSet=1&journalCode=bjet> Accessed on 28.1.2007

VERMEULEN, Bruno. <http://iflasblog.wordpress.com/category/belgium/> Accessed on 21 June 2008.

Name of country: Bosnia and Herzegovina - BA

Indicators which are relevant to this study.

- Member of the Council of Europe
- Potential member of the European Union (EU)

Note: General comments. Bosnia and Herzegovina remains divided in two semi-autonomous entities, the Republika Srpska and the Federation of Bosnia and Herzegovina. The international community continues to exert significant influence over the political process.

Specific conclusions – Bosnia and Herzegovina

1	Population ranking:	34 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 108 19.5% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	Unknown
4	Adult literacy	96.7%
5	Compulsory education	12 years
6	Primary school and secondary school enrolment	Information unavailable. NER (Net Enrolment Rates) relatively low in the past.
7	School attendance of children from minority groups	Unclear
8	PISA score	Did not take part in this test.
9	PIRLS score	Did not take part in this test.
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007. The responding institution was the National and University Library of the Republic of Srpska.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	204
16d	National school library law	Unknown
16e	National school library association	See below.
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	41-60%

The instability of the situation in Bosnia and Herzegovina makes a correct assessment of the situation in education and in school libraries in this country very difficult. This was confirmed by informal interviews in 2008 (mentioned above).

The country's human rights record remains poor; there are still serious problems. International organisations are attempting to help so that improvements in the situation can be made.

In so far as school libraries are concerned, school librarians in Croatia have reported that they are trying to give (moral) support to their colleagues in Bosnia and Herzegovina whenever possible. No specific details are available.

Specific References: Bosnia and Herzegovina

ALBH (Association of Librarians of Bosnia and Herzegovina).

www.pulmanweb.org/documents/twinning/Bosnia%20and%20Herzegovina.doc Accessed on 16 August 2008.

UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.

UNICEF (United Nations Children's Fund) (2008). http://www.unicef.org/infobycountry/bosniaherzegovina_background.html Accessed on 4 May 2008

Name of country: Bulgaria – BG

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Bulgaria

1	Population ranking:	25 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 99 12.8% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 30 4.5% of GDP
4	Adult literacy	98.2%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	Unclear
8	PISA score	European score 32 of the 36 European countries which took part in 2006
9	PIRLS score	See para 4. High score. European score 9 in 2006 of the 27 European countries which took part in 2006.
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unclear. 2 completely different numbers - See below
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Less than 20%

According to the World Bank statistics, Bulgaria is the poorest member of the European Union.

Statistics show that in 2005 (CIA, 2008), Bulgaria spent more of its GDP on education than in 2001 (Eurostat, 2005), thus it has increased its expenditure on education.

Bulgaria is a country with a strong library tradition and interest in reading.

Although a considerable amount of interesting information has been found about education and libraries in Bulgaria, very little accurate information seems to be available about school libraries in this country. Although the researcher has sent a number of different requests to the National Library and to the Union of Librarians and Information Service Officers in Bulgaria (ULISO), during a period of 3 to 4 years, no specific information has been received.

Information about the number of school libraries in Bulgaria was received from two different sources – one source estimated 1,466 school libraries (IFLA/FAIFE, 2007, the other 2,599 (Bulgarian National Library, 2008).

Also, very little information is available about the introduction of ICT into schools in Bulgaria.

The percentage of GDP which Bulgaria spends on education is similar to the expenditure of countries in a similar income category. It scores as number 30 in the European ranking. It is possible that the percentage of GDP which Bulgaria spends on education has risen slightly since 2004.

It should be noted that Bulgaria's score in the PIRLS 2006 score was high (9 in the European ranking) but nevertheless, its score is lower than its score in the 2001 test. Also, its ranking in Europe was lower, however this is partly due to the fact that more European countries took part in the PIRLS testing 2006.

Specific References: Bulgaria

- BULGARIAN National Library – the Rodina Library). <http://www.rodina-bg.org/library-system.html>. Accessed on 9 February 2008.
- BULGARIAN students Upbeat to Free Textbooks, 2006. http://www.novinite.com/view_news/php?id=74019. Accessed on 18 August 2008.
- CHILDREN IN THE INFORMATION SOCIETY. http://cis-sacp.government.bg/sacp/CIS/content_en/secondconference/vaniagrashkina.htm Accessed on 18 August, 2008.
- CHILDREN @ YOUR LIBRARY, 2006. <http://www.ebib.info/2006/72/ianeva.php> Accessed on 18 August 2008.
- EUROSTAT. European Commission , 2005. *UOE and National Accounts, 2005. Key Data on Education in Europe, 2005.* http://eacea.ec.europa.eu/ressources/eurydice/pdf_images/052ENX010D01x0101f.pdf Accessed on 1 October 2008.
- EURYDICE, 2007. *National summary sheets on education systems in Europe and ongoing reforms. Country : Bulgaria.* Brussels : Directorate-General for Education and Culture.
- EURYDICE Database. (2008a) <http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008.
- IFLA/FAIFE World Report 2000 : *Libraries and Intellectual Freedom.* Country: Bulgaria <http://www.ifla.org/faife/report/bulgaria.htm> Accessed on 14 August 2008.
- MY CHILDHOOD'S BOOKS, 2005. http://www.novinite.com/view_news/php?id=54632. Accessed on 18 August 2008.
- NOVINITE, 2008. *Bulgaria's First Lady takes part in Book Festival Moscow.* http://www.novinite.com/view_archive.php?date=2003-9-30 Accessed on 18 August 2008.
- UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report.* Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.
- UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe.* 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.
- UNICEF (United Nations Children's Fund) (2008) http://www.unicef.org/infobycountry/bulgaria_background.html Accessed on 4 May 2008

Name of country: Croatia - HR

Indicators which are relevant to this study.

- Member of the Council of Europe
- Candidate member of the European Union

Specific conclusions – Croatia.

1	Population ranking:	35 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 66
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 29 4.5% of GDP
4	Adult literacy	98.1%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	99%. However para 9b states that it is unlikely that Croatia will achieve the NER Millennium goals for UPE by 2015
7	School attendance of children from minority groups	Unclear – see below.
8	PISA score	European score 23 of the 36 European countries which took part in 2006
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unclear. 2 completely different numbers – see below
16d	National school library law	Yes
16e	National school library association	Yes
16f	National survey of school libraries	Yes
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	81-100%

The population ranking of Croatia is number 35 when compared to the 54 (entire) countries taking part in this report (see Tabel 11).

Croatia has become a candidate for membership of the European Union. It is a middle-income nation with a stable market economy

The researcher has been unable to locate reliable, up-to-date information (in English) about schools in Croatia, however

- Croatia took part in the PISA testing 2006: its scores are below the norm, but nevertheless, the results which were obtained were similar to those of other middle income EU members in Europe.
- No information could be found (in English) regarding the introduction of ICT into the schools, or the amount of money which is being spent from the national budget for this purpose.
- Three different Human Rights' organizations have expressed concern about the exclusion from education of children belonging to the Roma minority.

In 2005, Croatia reported having 965 school libraries (in the IFLA/FAIFE World Report). This means that there is a $\pm 30\%$ increase over a two year period, according to para 7 (1). The researcher sent an E-mail requesting clarification and received an answer which stated that it was a matter of interpretation in the description of a school library.

The IFLA/FAIFE World Report, 2007 reports the following:

- There is only an average amount of local content in local languages on the Internet.
- Internet access is free of charge in school libraries.

It is very interesting to note that Croatia has a strong school library activities:

- There is a school library law which states that every school should have a school library, run by a trained librarian.
- In general, these school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto.
- Informal interviews reveal the funding for school libraries is poor.
- Croatia has returned the ENSIL questionnaires, which provide information about the collection and conditions in the average school library.
- A national survey has been held, which supports these figures.
- Croatia has an active association of school librarians, who meet together for re-training and conferences. Sometimes school librarians from other neighbouring countries (Slovenia, Bosnia and Herzegovina) also take part in these conferences and training sessions.
- School librarians are still being trained at university level in Croatia (University of Zagreb).

The researcher would especially like to thank the University of Zagreb for their assistance in providing (English) information for this report.

Specific References: Croatia

ENSIL Foundation, 2008. www.ensil.eu Accessed on 24 May 2008.

IFLA/FAIFE World Report 2000 : *Libraries and Intellectual Freedom*. Country: Croatia
<http://www.ifla.org/faife/report/Croatia.htm> Accessed on 14 August 2008.

UNESCO (United Nations Education, Scientific and Cultural Organisation), 1987. *From School Libraries to School Media Centres: Experiences, the Present Situation and Possible Improvement*. Editor: Celler, Z.
http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED351023&ERICExtSearch_SearchType_0=no&accno=ED351023 Accessed on 18 August 2008

UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.

UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.

UNICEF (United Nations Children's Fund) (2008)
http://www.unicef.org/infobycountry/croatia_background.html Accessed on 4 May 2008

Name of country: Cyprus/ Κύπρος/Kıbrıs - CY

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Cyprus.

1	Population ranking:	45 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 41
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 8 6.3% of GDP
4	Adult literacy	98%
5	Compulsory education	9 years (see note – para 10a)
6	Primary school and secondary school enrolment	95% (no NER data available).
7	School attendance of children from minority groups	Unclear
8	PISA score	Did not take part in testing
9	PIRLS score	Score in 2001 was under the norm. Cyprus did not take part in the 2006 testing.
10	Statistics of use of ICT in schools	See Korte & Hüsing (2006).
11	ICT in the school library 2006	41% in 2006
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	IFLA/FAIFE World Report 2007 was returned by the Cyprus University Library and not the Cyprus Library (National Library).
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	138
16d	National school library law	No
16e	National school library association	Unknown
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Librarians are usually trained outside Cyprus, usually in Greece. No specific information about school librarians was available.
16h	School libraries with internet access to users	41-60%

Cyprus is basically a very small country, with a population which belongs to two distinct ethnic groups. There is a Greek Cypriot majority and a Turkish-Cypriot minority.

The CIA Factbook (2007) records the following information:

“The entire island entered the EU on 1 May 2004, although the EU agreement - the body of common rights and obligations - applies only to the areas under direct government control, and is suspended in the areas administered by Turkish Cypriots. However, individual Turkish Cypriots able to document their eligibility for Republic of Cyprus citizenship legally enjoy the same rights accorded to other citizens of European Union states. The election of a new Cypriot president in 2008 served as the impetus for the UN to encourage both the Turkish and Cypriot Governments to reopen unification negotiations.”

The information shown above records statistics which could be said to be similar to those reported by a number of other countries in Europe where progress is being made towards economic prosperity. However, doubt has been cast on the source and accuracy of some of these statistics and whether or not they are applicable to the entire country.

In 2004, Cyprus spent 6.3% of its gross domestic product (GDP) per capita on education and ranked as number 8 in Europe for educational expenditure. This indicates that Cyprus takes education seriously. In so far as actual education is concerned, some of the supplied information appears to be conflicting. Cyprus did not take part in the PISA testing 2006, or in the PIRLS testing 2006. This makes it difficult to estimate the quality of education in Cyprus against international norms. Also, concerns have been expressed by the Council of Europe, ECRI, about the lack of educational equality for all children in Cyprus.

Very little information about school libraries in primary or secondary schools (in the English language) is available. Other information which has been supplied is unreliable (see para 11.). There has been no response to a query requesting clarification, which was sent to the Ministry of Education, via the University of Cyprus.

Specific References: Cyprus

EURYDICE Database. (2008)

<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008.

Name of country: Czech Republic / Česká republika - CZ

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Czech Republic

1	Population ranking:	17 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 56
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 33 4.4% of GDP
4	Adult literacy	99%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	Unclear
8	PISA score	European score 12 of the 36 European countries which took part in 2006
9	PIRLS score	Mean score in 2001 above the norm. – mean score 537, rank in Europe 10
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	20%
12	ICT policy in schools	European Schoolnet report available para 6.
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes (2005 and 2007 Survey)
16c	Number of school libraries	4,151 (IFLA/FAIFE, 2007) See also different figures, below.
16d	National school library law	See below
16e	National school library association	No
16f	National survey of school libraries	No
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	81-100%

The Czech Republic is a middle-income nation with a stable market economy.

In 2004, the Czech Republic spent 4.4% of its gross domestic product (GDP) per capita on education. It ranked as number 24 in Europe.

Statistics show that in 2001 (Eurostat, 2005), the Czech Republic spent less of its GDP on education than in 2004 (CIA, 2008), thus it has increased its expenditure on education.

The Czech Republic has an adult literacy score of 99% (men and women over 15 years of age who could read and write).

The Czech Republic took part in the PISA testing 2006: its scores are above norm, except in reading. The results which were obtained are higher than other middle income EU members in Europe.

The Czech Republic did not take part in the PIRLS testing in 2006. It did take part in 2001 – world ranking 12, European ranking 10.

The general public in the Czech Republic is very proud of the quality of education in their country and believe it to be higher (or better) than the systems in other countries. (British Council, 2008).

The introduction of ICT into schools in the Czech Republic is keeping abreast with the progress in other similar income countries (see para 5 and 6).

Two Human Rights' organizations have expressed concern about the exclusion from education of some children from minority groups.

It is very interesting to note that the Czech Republic has a quite strong school library activities:

- The National Library of the Czech Republic has co-operated with the ENSIL surveys (2005 and 2007).
- There has been no national survey of school libraries, and therefore some evidence requested by the ENSIL Questionnaire Nr. 1 (2004) may not have been available.
- Nevertheless, the National Library of the Czech Republic returned detailed information about the actual collection (for all types of schools) over a 3 year period.
- Since there has been no national survey, it is difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto.
- There is no specific school library law in the Czech Republic, however there is a school law , No. 561/2004 Sb., and an edict 108/2005 in which reference is made to school library services within the schools. In actual fact, the school director can decide whether or not the school has a school library.
- Although the Czech Republic does not have a national association of school librarians, the Association of Library and Information Professionals of the Czech Republic has a School Libraries Club
- The ENSIL Survey 2005, sent to the National Library the Czech Republic confirms the following:
 - that there is a school library in the average primary school, but that the average primary school does not have a trained school librarian:
 - that there is a school library in the average secondary school. About 50% of these school libraries are run by a trained school librarian;
 - that school librarians are still being trained at university level in the Czech Republic at 3 different universities.
- Number of school libraries in the Czech Republic (all school types, i.e. primary and secondary schools) in

2005:	4,382
2006:	4,204

 supplied by the Association of Library and Information Professionals of the Czech Republic (SKIP) to the IFLA/FAIFE World Report 2007 (see specific conclusions, Nr. 16c.
- The statistics which were provided in general showed a decrease in the use of the school libraries from 2005 to 2006, however the use of computers and the use of Internet in these libraries increased dramatically from 2002 to 2006.
- Number of librarians:

2002	322
2005	255
2006	404
- Number of school librarians with a LIS education:

2005	76
2006	80.
- There a no job description, at national level, which describes the work and qualifications of the school librarian.
- Two school libraries in the Czech Republic took an active part in International School Library Day in 2007.

- It is to be expected that many school librarians have gained new skills, thanks to access to the SLAM. GrandSLAM and SLAMIT EU Projects (see para. 10-d).

The researcher would especially like to thank the National Library of the Czech Republic for providing (English) information for this report.

Specific References: Czech Republic

- CZECH LIBRARY AND INFORMATION SCIENCE PORTAL, 2006. LIS Portal, Librarianship
Institute of the National Library of the Czech Republic.
http://knihovam.nkp.cz/english/sekce.php3?page=04_Special.htm Accessed on 4 August 2008.
- EUROPEAN SCHOOLNET, 2008. Country: Czech Republic.
http://www.europeanschoolnet.org/ww/en/pub/eun/network/czech_republic.htm Accessed on 25 August 2008.
- EURYDICE Database. (2008)
<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6>
Accessed on 6 August 2008
- GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf> Accessed on 2 September 2008.
- IASL (International Association of School Librarianship), 2007. <http://www.iasl-online.org/events/isld/index.htm>
Accessed on 5 November 2008.
- SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.
- SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008.
- UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report.* Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.
- WEBSITE OF POLISH SCHOOL LIBRARIES!
<http://www.schoollibraries.republika.pl/> Accessed on 21 August. 08

Name of country: Denmark/ Danmark - DK

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Denmark

1	Population ranking:	27 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 7
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 2 8.3% of GDP
4	Adult literacy	99%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	99%
7	School attendance of children from minority groups	Unclear
8	PISA score	Increase in scores in 2006 – European score 14 of the 36 European countries which took part in 2006
9	PIRLS score	European score 10 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006,
11	ICT in the school library 2006	71% in 2006
12	ICT policy in schools	See European Schoolnet, 2008a
13	Media literacy	Denmark did not take part in the 2007 European Media Literacy survey.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes (partially)
16c	Number of school libraries	1605.
16d	National school library law	Yes
16e	National school library association	Yes
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	81-100%

It is one of the wealthiest countries in this survey and ranks as number 7 (world rank) in order of GNI per capita July 2008 (in US dollars), Atlas method. Its European ranking is number 5. **It spends the highest percentage of its GNP on education of all the countries in this survey,** with the exception of Uzbekistan (however the figures for Uzbekistan date from 1991, so it can therefore be assumed that they need to be updated).

Nevertheless, statistics show that in 2001 (Eurostat, 2005), Denmark spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education.

In the information which appears above, it becomes clear that Denmark is well aware of the large financial investment which it has made in the introduction of ICT into schools throughout Denmark. The Ministry of Education is stimulating all participants in the educational process to use this investment so that pupils are able to acquire knowledge through the use of ICT. The emphasis has not been placed on ICT technical skills, but on interdisciplinary information and research skills. School librarians (teacher librarians) work together with teachers towards this objective.

It could be said that recent scores in the PISA test (2006) and in the PRILS test (2006) do not necessarily show that these initiatives have been effective. However, in the opinion of the researcher, the Ministry of Education is still in the process of instigating these educational ideals and reforms (Municipal School Library Association of Denmark, 2006).

Denmark deserves to be complemented for the thoughtful way in which it has introduced the use of ICT technology into the schools. It has taken into account the very important role which the school library and information centre (Multimediacentre) and the properly trained school librarian (teacher librarian, school information specialist) will play in schools in digital Europe in the 21st century,.

Training of school librarians (Hubert, 2008).

“Since August 2005, Danish school librarian education course has changed dramatically. It used to last two and a half months. Now it takes at least one year to complete.

Formerly the focus was placed on reading and the promotion of children’s and young adult literature. Now the focus has also been places on a broad variety of media skill. The curriculum for the new courses is the same throughout Denmark.

The new school librarian education course is designed to develop a variety of different school librarian functions. Pedagogical guidance and professional help with common educational matters, ICT and new Medias also have high priority.

The new Danish school librarian education is now set to 27 ECTS point (European Credit Transfer System) and it contains 3 modules.”

The discussion Group for school librarians in the north, managed by Mr. Niels Damgaard, provides a NING for news and discussions about the school libraries in the Nordic countries - in Norwegian, Danish, Swedish - and 5 groups in English <http://skolebibliotek.ning.com/> (Accessed on 26 March 2010).

Specific References: Denmark

BJØRN, Ole. 2005. *The Danish School-library System*. European Virtual School http://www.en.eun.org2/eun/en/vs-Library_vs/content.cfm?lang=en&ov=8355 Accessed on 21 February 2005.

DANISH MINISTRY OF EDUCATION, 2008 *The Folkeskole*. <http://eng.uvm.dk/publications/factsheets/fact2.htm> Accessed on 2 September 2008.

DANISH UNION OF LIBRARIANS, 2007. *A short presentation*. <http://www.bf.dk/dk/156BC72B-EEAA-4FEA-952E-C7EF1E4B7352.htm> Accessed on 20 August 2008.

EUROPEAN SCHOOLNET, 2008a. Country report: Denmark. http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008b. Country: Denmark <http://www.europeanschoolnet.org/ww/en/pub/eun/network/denmark.htm> Accessed on 25 August 2008.

GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf> Accessed on 2 September 2008.

HUBERT, Bernt. 2008? *The Danish School Librarian education under change*. <http://iflasblog.wordpress.com/2007/01/14/the-danish-school-librarian-education-under-change/> Accessed on 20 August 2008

IASL (International Association of School Librarianship, 2002. *Assembly of Associations Communique 2002*. Country: Denmark. The 2002 IASL Conference, Petaling Jaya, Malaysia http://www.iasl-online.org/events/conf/reports/conference_report2002.html Accessed on 13 November 2008

IFLA (International Federation of Library Associations and Institutions), (2008). <http://iflasblog.wordpress.com/2007/01/14/pupils-ict-licence-in-aller%c3%b8d-denmark/> accessed on 30 July 2008.

JØRGENSEN, T. 2002. *The pedagogically working school library : A picture of the Danish school libraries*. http://www.gslam.net/schoollibrary/The_pedagogically_working_s.pdf Accessed on 20 August 2008

KOMMUNERNES SKOLEBIBLIOTEKSFØRENING, 2008. www.ksbf.dk. Accessed on 25 June 2008.

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children’s Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

MINISTRY OF EDUCATION, DENMARK. 2000. Summary: <http://pub.uvm.dk/2000/aabne/24.htm> Accessed on 30 July 2008. English link: http://junior-pc-koerekort.dk/pdf_download/Pupils%20ICK%20Licence_information.pdf

MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, 2008.
<http://www.workindenmark.dk/Libraries>. Accessed on 20 August 2008.

SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.

SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008

Name of country: Estonia/Eesti/Estland - EE

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Estonia

1	Population ranking:	44 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 59 8.9% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 23 5.1% of GDP
4	Adult literacy	99.8%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	99%. Not expected to meet the Millennium development goals for universal primary education (UPE) by 2015 due to negative growth situation. See para 10c.
7	School attendance of children from minority groups	See notes in para 10e.
8	PISA score	High score. European score 4 of the 36 European countries which took part in 2006
9	PIRLS score	Did not take part in this test.
10	Statistics of use of ICT in schools	See para 5.
11	ICT in the school library 2006	53.3%
12	ICT policy in schools	See para 6.
13	Media literacy	See para 7.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes (partially)
16c	Number of school libraries	Unclear. See Final conclusions (para 15)..
16d	National school library law	Yes
16e	National school library association	No – a division of National Library Association
16f	National survey of school libraries	Yes
16g	Training of teacher librarians	See para 12 and 13.
16h	School libraries with internet access to users	61-80%

Estonia is a small country with a population of approximately 1,3 million people. It is a middle-income nation.

There are serious concerns, mentioned above, about the decline in the population in Estonia and the effect which this will have on the economy and the schools.

Statistics show that in 2001 (Eurostat, 2005), Estonia spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education

A great deal of information has been supplied (above) about schools and education in Estonia, as follows:

- Estonia has an adult literacy score of 99.8% (men and women over 15 years of age who could read and write).
- Estonia took part in the PISA testing 2006: it scored extremely well, especially in science.
- Estonia did not take part in the PIRLS testing in 2006.

- The Eurydice report (2008) does not mention the number of children per class. Speculation suggests that, because of the decline in the population, the ratio of children per teacher is low and that this affects the quality of teaching which children receive.
- Information shown above reports that the number of books published each year in the Estonian language is high.
- A great deal of information regarding the introduction of ICT into the schools has been recorded above. The information indicates that the present trend is to place importance on education excellence and the acquisition of knowledge through the use of ICT, Less importance is being placed on ICT technical skills (these have already been acquired).
- The COE (Council of Europe), ECRI (European Commission against Racism and Intolerance) has expressed concern about the exclusion from education of some children from minority groups.

In Estonia, it would appear that more emphasis is now being placed on the role which school libraries play in the (newly defined) educational process.

- There is a working group at the Ministry of Culture which is preparing strategic development plan for Estonian Libraries. Kõuts is taking part in this working group, as a representative of school libraries.
- A national survey of school libraries was held in 2008.
- It is difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto.
- The professional level of school librarians varies widely and this reflects seemingly in the functioning of the library.
- There is a law which states that every school should have a school library - the Law of Primary and Secondary School states in §15 (4) Koolis on raamatukogu. (There is a library at the school). That is all. The law was passed 15.09.1993 and came into force 10.10.1993.
- In actual fact, not every school has a school library. This depends on the number of children in the school. Source: E-mail from Jaanus Kõuts to Helen Boelens, dated 29 June, 2008.
- School librarians do not have their own national association. There is a school libraries section in the National Association of Librarians. .
- Mention has been made of re-training programmes for school librarians, but the researcher still needs to confirm that school librarians are still being trained at university level in Estonia. However it has been confirmed that there is a department of Library and Information Science at Tallinn University.
- 61-80% of school libraries in Estonia have Internet access for users.

In conclusion, this report shows that, despite certain problems which have already been mentioned above, Estonia takes education seriously and is attempting to provide its children with high quality education which results in a high level of academic achievement. It is constantly investigating different methods of achieving these goals.

Specific References: Estonia

BALTIC BUSINESS NEWS (BBN), 2008. *Estonian officials don't have a clue on what to save.*
21 July 2008. <http://balticbusinessnews.com> accessed on 21 August 2008.

EUROPEAN SCHOOLNET, 2008. Country : Estonia.
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Estonia
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/estonia.htm> Accessed on 25 August 2008.

- EUROPEAN SCHOOLNET, 2008. <http://www.koolielu.ee/pages.php/0702> Country: Estonia. Accessed on 2 August 2008.
- INSIGHT observatory for new technologies and education. 2008. http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Country: Estonia Accessed on 5 May 2008
- KÖUTS, JAANUS. 2008. *Training Estonian School Librarians*. Estonian Librarians Association, Section for School Librarians. <http://iflasblog.wordpress.com/category/estonia/> Accessed on 30 July 2008.
- TIGER LEAP Project, 2008. http://www.tiigrihype.ee/static/files/6.tiigrihype2007ENG_standard.pdf Accessed on 21 August 2008.
- UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008
- VIRKUS, Sirje. 1997. *Distance education as a new possibility for librarians in Estonia*. Information Research, Vol. 2 No. 4, April 1997. <http://informationr.net/ir/2-4/paper20.html> .

Name of country: Finland/Suomi – FI

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Finland.

1	Population ranking:	30 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 17
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 7 6.4% of GDP
4	Adult literacy	100%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	Unclear
8	PISA score	Excellent scores. See para 3 –European score 1 of the 36 European countries which took part in 2006
9	PIRLS score	Did not take part in this test.
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	14% in 2006
12	ICT policy in schools	See European Schoolnet, 2008.
13	Media literacy	See European Commission , 2008
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 but no specific information about the number of school libraries
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unclear
16d	National school library law	No
16e	National school library association	Yes
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unclear
16h	School libraries with internet access to users	81-100%

Finland is a small, prosperous country. It is one of the wealthier countries in this survey and ranks as number 17 (world rank) in order of GNP per capita July 2008 (in US dollars), Atlas method. Its European ranking is also number 11.

Nevertheless, statistics show that in 2001 (Eurostat, 2005), Finland spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education.

Finland has an adult literacy score of 100% (men and women over 15 years of age who could read and write).

Finland has an excellent reputation throughout the world as a country which place high priority on education (see para 11). It has exceptionally high scores in the PISA testing 2006 and 2003. Also reference to the above text confirms that it has similar scores in 2000.

Finland did not take part in the PIRLS 2006 testing.

Nevertheless, the above text confirms that Finland is not satisfied with its results, and continues to try to improve the quality of the country's education.

Regarding the introduction of ICT into schools in Finland, the above statistics show that Finland has taken this matter seriously and that schools are well-equipped with ICT hardware and software.

Questions could be raised about the quality of Media literacy instruction in schools. The competencies of teachers in this area are unclear. Nevertheless, the Ministry of Education has shown interest in looking into this situation and instigating improvements.

The situation in school libraries is less impressive. Finland does not have a strong tradition of school librarianship. Although the School Library Association in Finland has made a valiant effort to promote school librarianship and to explain its benefits for educational quality, it is unclear at the time of writing whether or not these efforts have been successful.

Statements have been made by the Ministry of Education in Finland about the need for school libraries, but these statements have not, in reality, been followed up.

Although Finland is proud of its expenditure on education, school libraries report that they have funding problems.

Reference to the information which has been obtained about school libraries, shows that 81-100% of (the large number of) school libraries in Finland have Internet access for users.

Since there has been no national survey, it is difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto

Finland does not have a school library law.

The School Library Association in Finland has prepared a national job description for the post of school librarian.

It is unclear whether or not school librarians are still being trained in Finland (librarianship with an educational qualification). Although the researcher wrote to many universities in Finland, asking for details about the question, the replies were unclear.

One Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups.

Bouma (2008) questions the ability of Finland to maintain the quality of its education system during the next decade.

Specific References: Finland

BOUMA, J.-d. 2008. *Aan de top met middenschool : Het Finse onderwijs is zo goed omdat Finland nog simple is, maar de modern gevaren drijven (At the top with middle school : Finnish Education is so good because Finland is still simple, but the modern perils are pushing their way in)..* Rotterdam : NRC Handelsblad. Saturday 19 April 2008

BUCKINGHAM, David, 2003. *Media Education: Literacy, Learning and Contemporary Culture.* Cambridge, U.K. : Polity Press.

BURNS, ANDREW and DURRAN, JAMES, 2007. *Media Literacy in schools : Practice, production and progression.* London : Paul Chapman Publishing.

EUROPEAN SCHOOLNET, 2008a. Country: Finland.
http://insight.eun.org/www/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008b. Country: Finland.
<http://www.europeanschoolnet.org/www/en/pub/eun/network/finland.htm> Accessed on 25 August 2008.

FRANTSIS, HANNELE, KAARINA KOLU AND SEIJA SALMINEN, 2002 : *A good school library.* Helsinki : Finnish National Board of Education and the School Library Association in Finland

KUPIAINEN, Reijo, Sara Sintonen and Juha Suoranta, 2008. *Decades of Finnish Media Education,* Helsinki : The Finnish Society of Media Education.

MINISTRY OF EDUCATION, FINLAND. 2007. *Proposal for an action programme for developing media skills and knowledge as part of the promotion of civil and knowledge society.*
http://www.minedu.fi/OPM/Julkaisut/2007/Ehdotus_toimenpideohjelmaksi_mediataitojen_ja_osaamisen_kehittamiseksi.html?lang=en Accessed on 7 September 2008.

NIINIKANGAS, LIISA., 2005 *Between the old and the new – Finnish school libraries since the early 1990s.*
www.lighthouse.fi. Accessed on 25 February 2007

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section
of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) .
Munich [etc.] : K. G. Sauer

READING FINLAND, 2001. Project of the Finnish National Board of Education, 2001-2004.
<http://www.oph.fi/english/pageLast.asp?path=447,65535,77331,77333,77341> Accessed on 9 October 2008.

Name of country: France/Frankrijk – FR

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – France

1	Population ranking:	4 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 24
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 14. 5.7% of GDP Comparison of expenditures in 2001 and 2005 shows that they have remained virtually the same.
4	Adult literacy	99%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Decrease in scores in 2006 test – European rank 14 of the 36 European countries which took part in 2006. Score under the norm.
9	PIRLS score	European score 17 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	36% in 2006
12	ICT policy in schools	See European Schoolnet 2005
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Did not return the IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Yes (in secondary schools?)
16e	National school library association	See FADBEN, 2006.
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

France is an important , powerful member of the European Union. It has a large population. The population ranking of France is number 4 when compared to the 54 (entire) countries taking part in this report.

Statistics show that in 2001 (Eurostat, 2005), France spent approximately the same amount of its GDP on education as it did in 2005 (CIA, 2008).

The EURYDICE database (2007) and British Council (2008) provide a description, in English, of the educational system in France.

France has an adult literacy score of 99% (men and women over 15 years of age who could read and write).

A review of the PISA and PIRLS scores would seem to indicate that academic achievement of pupils in France is decreasing, although extenuating circumstances may be related to this decrease.

Regarding the introduction of ICT into schools in France, statistics and information (Korte & Hüsing, 2006, and European Schoolnet, 2005) show that France has taken this matter seriously and that schools are well-equipped with ICT hardware and software.

Various philosophical questions could be raised about the quality of Media literacy instruction in schools. The competencies of teachers in this area are unclear. Nevertheless, the Ministry of Education has a definite policy for the inclusion of media literacy instruction in the curriculum (European Commission, 2007)

According to Durpaire (2006) - the general inspector of national education in France in 2006 – basic skills that every pupil should have before leaving formal education include information and communication technologies. The informational skills and competencies are not the domain of a specific discipline of the secondary education, except for the students of the communication and information area. ... For ten years now, several training tools are being used in order to change the traditional ways of teaching. Recently, the B2i – certificate on Internet and informatics – has been instituted to validate the competencies on the use and processing of information through the new information tools.... The French educational system is also characterized by the existence of a teacher librarian in each school. This teacher librarian, more than a documentation and information technician, is an integrant member of the pedagogical team.

France is proud of its Resource Centres (CDI's) in lower-secondary and upper-secondary schools (for pupils from 11 – 18 years) and an attempt has been made to assess the effectiveness of these centres (FABDEN, 2006, Liquète, 2003b and 2007, Ray (Editor), 1978). Every public secondary school has a CDI, run by a qualified information specialist (teacher librarian), however informal interviews have indicated that this information represents the ideal situation and may not, in fact, be a clear picture of the actual situation.

FABDEN, 2006 confirms that the School Documentation and Information Centre is a multimedia information centre where all students can learn how to work with documents and acquired information skills. In France, the school documentalists perform a double role as a teacher and a specialist of information sciences certified by the "CAPES". They are in charge of a multimedia resource centre, catalogue the information and are responsible for its circulation. They participate in the pedagogical, educational and cultural activities of the school and develop plans in coordination with the administrative and pedagogical team. They teach students how to do different forms of research, how to ask for databases, how to use new technologies, multimedia as well as Internet. They promote reading, giving out information, associating the "CDI" with national and regional events, devoted to books often in partnership with local libraries. They communicate within the school and the surroundings, in particular with museums, local authorities, and business representatives. FABDEN (www.fadben.asso.fr). came into existence in 1972.

Although the researcher has sent numerous requests to the National Library of France for specific information about school libraries which is essential to this study, replies have not been received. This could be due to the fact that the requests were sent in the English language.

France did not return the IFLA/FAIFE World Report 2007, and this also means that certain information about school libraries and information centres is unavailable for this report.

It is difficult to ascertain whether or not school libraries comply with the guidelines set out in IFLA/UNESCO 1999 and 2002.

A job description (in English) of the work carried out by the school librarian (information specialist, documentalist) is unavailable.

It is unclear whether or not school librarians are still being trained in France (librarianship with an educational qualification). Although the researcher wrote to a number of universities in France, asking for details about this question, the replies were unclear.

One Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups.

Specific References: France

CERISIER, J-F. 2008. *Training young people in the use of digital media: the highs and lows of establishing the Information Technology and Internet Proficiency Certificate (B2i) in France*. Distance et savoirs – Hors série/2008. <http://www.distanceandaccesstoeducation.org/contents/DS2008-Cerisier-Devauchelle-Nguyen-Rizza-en.pdf> Accessed on 8 November 2008.

DUPAIRE, Jean-Louis, 2006. *Information Literacy : the French approach*. <http://www.iasl-online.org/events/conf/2006/conference2006-speakers.html> Accessed on 8 November 2008.

EUROPEAN SCHOOLNET, 2005. Country report: France http://insight.eun.org/wv/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

- EURYDICE Database. (2008a)
<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008.
- FADBEN (La Fédération des Enseignants Documentalistes de l'Éducation Nationale), 2006. *The School Documentation and Information Centre*. www.fadben.asso.fr Accessed on 4 October 2006.
- IFLA (International Federation of Library Associations), 2002. *The School Library : Today and Tomorrow / La Bibliothèque Scolaire : Aujourd'hui et demain / La Biblioteca Escolar : Presente y futuro*. The Hague : IFLA. <http://www.scribd.com/doc/3721740/SchoolLibrary-today-tomorrow> Accessed on 8 November, 2008.
- IFLA/UNESCO (1999). *School Library Manifesto : The School Library in Teaching and Learning for All*. The Hague : IFLANET. International Federation of Library Associations and Institutions. <http://www.ifla.org/en/publications/iflaunesco-school-library-manifesto-1999> Accessed on 14 May 2009.
- IFLA/UNESCO (2002). *School Library Guidelines* The Hague : IFLANET. International Federation of Library Associations and Institutions. <http://www.ifla.org/en/publications/the-iflaunesco-school-library-guidelines-2002> Accessed on 14 May 2009.
- LIQUÈTE, Vincent, 2003a. *Presentation and analysis of supervised personal work in France (T.P.E. / Travaux Personnels Encadrés) : frp, technical "walling up" to an opening into pedagogy and education for information*. The Hague : IFLA SL Newsletter. <http://iflasblog.wordpress.com/category/france/> . Accessed on 8 November 2008. Published January 14, 2007. Accessed 8 November 2008.
- LIQUÈTE, Vincent, 2003b. *Teaching information concepts in the French educational system : the role of teacher librarians* The Hague : IFLA . http://www.ifla.org/IV/ifla69/papers/070e_trans-Liquete.pdf Accessed on 8 November 2008.
- LIQUÈTE, Vincent, 2007. *The status of the Resource Centres CDI in France*. The Hague : IFLA SL Newsletter. <http://iflasblog.wordpress.com/category/france/> . Accessed on 8 November 2008. Published January 14, 2007
- RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

Name of country: Georgia - GE

Indicators which are relevant to this study.

- Member of the Council of Europe

Note: Georgian military action in South Ossetia in early August 2008 led to a Russian military response that not only occupied the breakaway areas, but large portions of Georgia proper as well. This action was strongly condemned by most of the world's nations and international organizations (CIA, 2008).

Information which was collected for this report before August 2008 may no longer be correct or relevant.

Specific conclusions – Georgia

1	Population ranking:	33 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 135 54.5% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 44 3.1% of GDP.
4	Adult literacy	100%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	NER (Net Enrolment Rates) of 85%. Not expected to meet the Millennium development goals for universal primary education (UPE) by 2015.
7	School attendance of children from minority groups	Unclear
8	PISA score	Did not take part in this test.
9	PIRLS score	Low score – below the norm. European score 26 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Georgia did not take part in the IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	Unknown
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

Georgia is a country with a low GNI per capita. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

The present political instability in Georgia makes a correct assessment of the situation in education and in school libraries in this country very difficult at this time (September 2008).

During the Soviet era, the Georgian population achieved one of the highest education levels in the Soviet Union: illiteracy had been eradicated by the 1980's. Until 1991, the Georgian education system was used by the Communist Party of the Soviet Union (CPSU) for purposes of indoctrination. In 1992 this country

retained the basic structure for education which was established during the Soviet era. Under the Soviet system, education was both free and compulsory. .

Since that time, Georgia submitted requests for aid from the West and major reforms were in progress. Major reforms took place in 2005, in an attempt to purge the corrupt educational system.

Very little current information is available, in English, about education in Georgia after the Soviet era, except for a brief description published by the British Council.

However, from the information shown above, the following is known:

- There was 100% adult literacy in Georgia in 2007.
- Despite the results achieved during the Soviet era, evidence has been found that that Georgia is unlikely to achieve the NER (Net Enrolment Rates) for universal primary education (UPE) Millennium goals by 2015.
- This same report states that the Growth Situation 2002 for Georgia is negative. .
- Of the 27 countries (in Europe, including former members of the USSR) which took part in the PIRLS testing 2006, Georgia scored poorly, under the norm, and was placed at 27. However, it should be noted that not all countries covered by the study took part in the PIRLS testing 2006.

The Council of Europe (Georgia is a member) – ECRI (European Commission against Racism and Intolerance) – has raised questions about the availability of education to Roma children and children from other minority or vulnerable groups.

No information is available in English about school libraries. Georgia did not take part in the IFLA/FAIFE World Report 2007.

Also, nothing is known about the training or re-training of teacher librarians in Georgia.

Specific References: Georgia

BBC (British Broadcasting Commission), (2008b) <http://news.bbc.co.uk/1/hi/world/europe/4724213.stm>
Accessed on 10 August 2008.

BBC (British Broadcasting Commission), (2008a). <http://news.bbc.co.uk/2/hi/europe/7551667.stm> Accessed on 10 August 2008.

IFLA/FAIFE World Report (2000) : *Libraries and Intellectual Freedom*. Country: Georgia
<http://www.ifla.org/faife/report/georgia.htm> Accessed on 14 August 2008.

TELEGRAPH (2008a). .
<http://www.telegraph.co.uk/news/worldnews/europe/georgia/2531145/Georgia-Key-players-in-the-conflict.html>
Accessed on 10 August 2008

UNICEF (United Nations Children's Fund) (2008) http://www.unicef.org/infobycountry/georgia_background.html
Accessed on 4 May 2008

Name of country: Germany/Deutschland /Duitsland – DE

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Germany

1	Population ranking:	2 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 23
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 27 4.6% of GDP
4	Adult literacy	99%
5	Compulsory education	13 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	Increase in scores in 2006 – European score 8 of the 36 European countries which took part in 2006
9	PIRLS score	European score 6 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	See European Schoolnet, 2008
12	ICT policy in schools	See European Schoolnet, 2008.
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 but no specific information about school libraries
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No, since information on a national level was unavailable.
16c	Number of school libraries	Unclear. According to Schneider (2008) - 15% of ca. 43,000 secondary schools and ca. 9,000 vocational training schools have a school library. Schlamp (2008) estimates that 50% of primary schools in the state of Hesse have a school library.
16d	National school library law	No
16e	National school library association	No – see text in report.
16f	National survey of school libraries	No
16g	Training of teacher librarians	In some federal states – short training but not at academic level. – see text of report.
16h	School libraries with internet access to users	61-80%

The Eurydice database (2007), Country Studies – Germany (2008) and the British Council (2008) provide information about the diversity of the school system in Germany.

Some of the information shown above records statics which could be said to be similar to those reported by a number of other prosperous countries in Europe. The situation in Germany, however, is somewhat different, for the following reasons:

- *The fact that each Federal State is responsible for its own policy in education*

- *The reunification of Germany called for the unification of two completely different education systems (see Para 10b).*
- *There may have been school libraries in each school in the former DDR, but para 13 casts doubt on the quality of these facilities. The researcher has contacted a number of people in Germany in order to find more information about this situation, but at the time of writing (September 2008) no information has been forthcoming.*
- *Other than this, there is no historical background to school librarianship in Germany.*
- *The situation in school librarianship varies from state to state.*

Korte & Hüsing (2006) describe ICT technical facilities in schools. Expenditure on these facilities is high, however the researcher would point out that although these facilities are physically present in the schools, there is no indication of:

- the quality of this equipment
- whether or not the equipment is actually working properly on a daily basis,
- the skills of teachers in the use of this equipment, and most important of all
- how pupils use this equipment to acquire knowledge and research skills. .

It is unclear as to whether or not learning objectives for the teaching of media literacy, information literacy and research skills in the library have been established for each State.

There is considerable concern regarding the decrease in student achievement in schools in Germany. This is reflected by scores in the PISA (2003) and the PIRLS (2001) tests. The researcher has presented a comparison of these scores with other countries in Europe. Although the scores in Germany rose during tests held in 2006 for both these studies, the German score for the PISA tests for reading are still below the norm. Many reasons have been given for these poor scores – they are described in detail in the referenced documents. However, one reason which continues to be given is the low performance of children from immigrant backgrounds in these tests. Measures have been taken to counteract these problems.

An exception to the low scores in the PIRLS scores is, the state of Hesse - it scores above the German average. Researchers are of the opinion that this may be due to the large number of school libraries in Hessian primary schools. Schlamp (2008) estimates that about 50% of the primary schools in Hesse have a school library. Almost all of them are run by teachers or parents. The LAG (Landesarbeitsgemeinschaft) Schulbibliotheken in Hessen e.V. asserts that the high number of primary school libraries is due to 20 years of its counselling, guidance and training.

It is clear that Germany does not have a strong tradition of school librarianship. A great deal of the information about school libraries in Germany (which can be found above) comes from two specific sources, from people who have different ideas and visions of school library work.

- Mr. Guenter Schlamp (2007), who is a former school principal and representative of the Landesarbeitsgemeinschaft Schulbibliotheken in Hessen (LAG). A number of his comments and articles appear above. Mr. Schlamp is known throughout the international school library world for his devotion to the promotion of good school libraries in Germany.
- Dr. Ronald Schneider, Chairman of the German Library Association (DBV)

Schneider presented reports to the IASL Assembly of Associations in 2006 and 2008 (IASL 2006 and 2008), Schlamp presented a report to the same Assembly in 2008. These reports are somewhat conflicting . Schlamp presents the importance of the role of school libraries in the continuously changing pedagogical process; Schneider presents the role of the public library as a co-ordinator of school libraries, emphasising reading, with little recent educational vision. The researcher was unable to find out whether or not this aspect of “competition” has to do with subsidies of library work.

Schlamp takes the position that every school needs a school library and information centre. He refers constantly to the IFLA/UNESCO School Library Manifesto and the IFLA/UNESCO School Library Guidelines, which call for a well-equipped school library run by a professionally trained school librarian (The descriptions which Schlamp has provided of some school libraries in Germany – *a dark room at the outskirts of the school site to a corner in the staff room* – give a sad picture of school libraries in German schools.

Schlamp specifically states that school libraries should be run by a trained librarian who also has pedagogical qualifications and training. Parents and teachers often provide school facilities when there is no funding for a trained professional school librarian. The work of these teachers and parents is to be commended and, in the opinion of the researcher, does play a role in the academic achievement of pupils, but it is not comparable with a proper school library run by a trained professional.

Schneider is also convinced of the important role which school libraries should play in schools in Germany, but he constantly refers to the role of the public library in this work. While public libraries can provide certain facilities to schools, such as collections, library visits and short term training courses for library personnel, they do not, and cannot provide the professional services of a trained teacher librarian. This is a person who co-operated daily with the teaching staff and has an integral role in the teaching of interdisciplinary information skills to both teachers and pupils.

While the researcher is convinced that there has to be some form of co-operation between school libraries and public libraries, the running of a school library is the job of a specially trained librarian, who not only has excellent skills in librarianship, but is also a trained teacher.

Both Schlamp and Schneider report the low number of school libraries in German schools which are run by a specially trained school librarian. Although Schneider mentioned that short courses have been provided for library staff, this is a short-term solution. School librarians (teacher-librarians) need to be properly trained at university level.

According to Schneider (2008) ca. 43.000 schools for secondary education and ca. 9.000 schools for vocational training: max. 15 % have a school library. The organisation and management of school libraries is not carried out by school librarians but by teachers (position or voluntarily), parents (volunteers) and students. There is no training in Germany for school librarians.

The researcher tried to obtain more information about school libraries in the former German Democratic Republic. Thanks to the kind intervention of Dr. Claudia Lux, President, IFLA (International Federation of Library Association) and Dr. Ronald Schneider, Chairman, German Library Association (DBV), the researcher was able to come in contact with Frau Antje Antje Töppner (E-mail dated 29 September, 2008). Her E-mail confirms much of the information which has already been mentioned in the report on Germany and contains the following information:

The topic "school libraries" in Germany is a difficult topic. At GDR times the public libraries cared for small branches at the schools. These libraries were cared for by librarians or library skilled workers. An influence of the Soviet Union on the GDR to the school libraries is not well-known me.

My older colleague reported the still following to me: 1970 find librarian help for school libraries by of the "central office for the child and youth book" in Dresden. There was co-operation with the commissions to "inventory structure" and "methodology of the child library work" of the ZIB (Zentralinstitut for libraries).

In Mecklenburg-Western Pomerania there are nearly no more school libraries, what by the personnel of the library in the city is cared for. Some schools have small libraries and/or "a room with books", which are cared for by teachers. Co-operation between the "a room with books" (in my opinion - no school libraries!) and the library locally is different. Our team of experts registered on the portal some. www.schulmediothek.de.

Ray (Editor, 1978) provided the following background information about school libraries in the former GDR:

The schools now maintain only book stocks for teaching purposes, books for use in the lessons. ... In accordance with this order, the schools retain a few titles with many copies of each. The supply of the schools with these books is effected by a compulsory book-ordering system on the basis of recommendations by the Central Office for Children's and Youth Literature.

Seefeldt and Ludger (2007) have written about library diversity in Germany. They describes the close relationships cultivated between the public library and the school. This relationship is specified in the educational and political mandate of the public library. Where school libraries exist, the public library co-operates with the school libraries. School libraries are sometimes located in the schools themselves, and are often called Media Centres; others are branch libraries of the local city library system. Most school libraries belong to the first category, but unlike the branch school libraries, they are rarely run by a full-time or qualified staff.

The Deutsche Bibliothekstatistik (2006) had provided data on libraries in Germany, but these figures do not include school libraries. However, the Federal Union of German Library and Information Associations (BID) provided information to the FAIFE/IFLA World Report 2007. In this report, they mention that there is "very much" local content available, also in local languages, on the Internet.

The researcher concludes that there is conflicting information about school libraries in German, in both primary and secondary schools. Various professional people who submitted information to this study seem to be in general agreement on the following:

- Between 10 – 15% of schools in Germany have school libraries in upper secondary schools) which comply with the conditions which are specified in the IFLA/UNESCO School Library Manifesto.
- The equipment, furnishing and staffing in many school libraries is unsatisfactory.
- Concern about the performance of German students in the OECD Programme for International Student Assessment (PISA, 2000) has caused comments about the neglect of school libraries in the German school system.
- The number of educated librarians who work in school libraries may not exceed 100. There are between 35,000 and 40,000 schools in Germany.
- There is no standardised professional training for school librarians. There are less than 100 professionally trained school librarians (teacher-librarians) working in school libraries in Germany.

Conflicts sometimes arise because of the need for and availability of funding for the promotion of school libraries.

Specific References: Germany

BERNARD, Paulette (editor). IFLA (International Federation of Library Associations). 1997. *Resource book for School Libraries and Resource Centers*. IFLA Publications 79. Munich : K. G. Saur

BREITHAUPT, Renate. 1987. *Centralized School Library Services in the Federal Republic of Germany as performed at the School Library Services Centre of the Stadtbucherei Frankfurt am Main*. Paper presented at the Open session of the Section of School Libraries, 53rd IFLA General Conference, Brighton, 1987.

DEUTSCHER BILDUNGSSERVER, 2008. http://www.bildungsserver.de/zeigen_e.html?seite=2924
Accessed on 8 September 2008.

EUROPEAN SCHOOLNET, 2008. Country: Germany.
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/germany.htm> Accessed on 25 August 2008

EURYDICE Database. (2008a)
<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008

IASL (International Association of School Librarianship, 2008. *Assembly of Associations Communique 2008 the 2008 IASL Conference, Berkeley, California*
<http://www.iasl-online.org/members/communique/assofass2008a.htm> Accessed on 21 Aug. 2008.

IASL (International Association of School Librarianship, 2006. *Assembly of Associations Communique 2006. The 2006 IASL Conference, Lisbon, Portugal*
<http://www.iasl-online.org/members/communique/assofass2006c.htm#dbv> Accessed on 21 Aug. 2008.

PAPENDLECK, Andreas. 1983. *New environments of learning through school library media centers in the Federal Republic of Germany*. Paper given at the Open session of the Section of School Libraries, 49th IFLA General Conference, Munich, 1983.

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

SCHLAMP, Guenter. (2008a). E-mail received on 4 July 2008.

SCHLAMP, Guenter. 2007. *Training working techniques in the school library : Lag Schulbibliotheken in Hessen*. <http://iflasblog.wordpress.com/category/germany/> Accessed on 27 January 2007.

SCHLAMP, Guenter. 2008b. *German weblog on school libraries. Lag Schulbibliotheken in Hessen*. www.ensil.eu Accessed on 25 May 2008.

SCHNEIDER, R. & JORDAN-BONIN, E. *Germany on its sway: The School Library + Information Literacy – The perfect combination*. <http://iflasblog.wordpress.com/2007/01/14/germany-on-its-way-the-school-library-information-literacy-the-perfect-combination/> Accessed on 14 January 2007.

SCHNEIDER, R. Presentation in Salem, Germany in 11 October 2008.
<http://www.bibliotheksportal.de/hauptmenue/themen/bibliothek-und-bildung/bibliothek-und-schule/>
Accessed on 22 March 2010

SEEFELDT, J and Ludger, S, 2007. *Portals to the past and to the future : Libraries in Germany*. Hildesheim [etc.] : Georg Olms.

Name of country: Greece/ Ελλάδα/Griekenland – EL (GR)

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Note: In 2010 it became apparent that Greece is on the verge of bankruptcy. The information shown below was collected before these financial problems became apparent. The researcher would expect that these problems would affect the funding which is available for education and for school libraries.

Specific conclusions – Greece

1	Population ranking:	14 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 35
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 31 4.4% of GDP
4	Adult literacy	96%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	Decrease in scores in 2006 – European score 29 of the 36 European countries which took part in 2006
9	PIRLS score	Score in 2001 was above the norm. Greece did not take part in the 2006 testing.
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006
11	ICT in the school library 2006	7% in 2006. See below.
12	ICT policy in schools	European Schoolnet 2008a and 2008b
13	Media literacy	Did not take part in the study.
14	Libraries – general information	Did not return IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unclear
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

Greece could be described as a European country in the middle income category.

Statistics show that in 2005 (CIA, 2008) Greece spent more of its GDP on education than in 2001 (Eurostat, 2005), thus it has increased its expenditure on education.

From the above information, it can be concluded that education in Greece is undergoing many changes, especially with regard to the implementation of (technical) ICT into primary and secondary schools. However, it could be concluded that Greece is lagging behind, when compared with the statistics provided by other EU members, including Cyprus. Of course, the researcher is aware that there are many reasons for these delays, which are explained in detail in the referenced reports.

There is somewhat dated information about plans to reform school libraries; there is also evidence that school libraries in some secondary schools may have improved. In a paper published in 2004, Saitis [Saitis, 2004] describes the poor condition of school libraries in Greek primary schools in rural and urban areas and

makes specific suggestions for improvements. Recent information [Arvaniti, 2007] provides information which states that while primary school teachers would like to have good school libraries, development in this area is very slow. Unfortunately, no recent data about school libraries was provided for the IFLA/FAIFE World Report 2007.

It is also unclear whether or not school librarians are being trained in Greece at university level, despite many attempts to obtain clarification about this subject.

IFLA (2002) published A. Papazoglou's vision of the school library, as follows: "A vision of the school library is always linked with a vision for the ideal school. In the perfect setting the school library is a truly integral part of the school, a true laboratory of learning. According to Papazoglou, the school librarian, a skilled and qualified professional and the teacher collaborate as equal partners. They work together to establish which parts of the subject can be taught in a way that involves the active participation of the student through research and individual learning. ... In a world where knowledge is continually evolving and learning will be a lifelong experience, the acquisition of information skills and the development of critical thinking starts at the school library. Housed in a well designed space sufficient for the accommodation of a variety of classes, properly equipped with up to date technology, both hardware and software, and a variety of resources, both print and non print, the school library should play an active role in defining the philosophy of the school.

The National Library of Greece (2008) supplied the following information to the 2nd ENSIL survey in 2005.

- There is a school library in the average primary school in Greece.
- This school library is not run by a trained librarian.
- There is a school library in the average secondary school in Greece.
- This school library is not run by a trained librarian.
- Greece does not have a National School Library Association or regional school library associations.
- School librarians are members of the National Library Association.
- Librarians are still being trained at university level at the Ionian University, Kerkyra.

Arvaniti, Kyridis and Dinas (2007) discuss changes in the meaning and mission of school libraries are part of the social and educational changes of the 20th century and state that the school library plays a crucial role in this new educational system. In this paper, mention is made of a Law 1566/85, which refers to school libraries and an attempt to upgrade them as an institution and stated that there should be a school library in every primary and secondary school and that these libraries can be used by pupils, the teaching staff and local residents. The paper goes on to describe a research project in which teachers could express their opinions and views about the need for school libraries. The paper concluded that *teachers have acknowledged the significance of school libraries. They dream of well-equipped libraries, with trained librarians, rich collections of books and cozy rooms. They are eager to work more systematically toward integrating the library into the curriculum. However most school libraries are found in school corridors, there are no librarians and finally the number of books is very small and most of them are very old.*"

Tzekakis (2008) describes a School Libraries Program which states that the University of Crete Library has been appointed by the Ministry of Education as the agent responsible for establishing and organizing school libraries in 32 secondary schools situated in the area of Crete.

CORDIS (1998) states that the Ministry of Education runs a special project for the development of school libraries, with funds from EU. No report was located regarding the success or failure of this project.

Saitis and Saiti (2004) investigated the management and functionality of primary school libraries and their contribution to school quality in two prefectures in Greece. They concluded that Greek primary schools suffer from a shortage of school building infrastructure, a lack of autonomy in local authorities in determining financial library needs, a shortage of printing paper and electronic material, a shortage of qualified librarians and teachers training in library services, a lack of co-operation with the municipal libraries, and limited library working hours. They recommend that the Greek Ministry of Education should identify and monitor the re-planning and redesigning of school libraries, select and recruit qualified librarians, and develop strategies and policies to improve the quality and efficiency of the school system.

Skepastianu (1990) describes the status of libraries in secondary schools in Greece in 1990. Since that time, school libraries in secondary schools have undergone reform. Papazoglou and Semertzaki (1990) speak about reforms in school libraries, and an increase of 500 school libraries in secondary schools

Specific References: Greece

- ARVANTI, I., KYRIDIS, A & DINAS, K. 2007 *Greek primary school teachers dream of the ideal school library*. www.webpages.uidaho.edu/~mbolin/arvaniti-kyridis-dinas.htm Accessed on 12 September 2008.
- CORDIS (Community Research and Development Information Service) 1998. The role of libraries in the information society - Greece. Background Information. <http://cordis.europa.eu/libraries/en/green-gr.html> Accessed on 12 September 2008
- EUROPEAN SCHOOLNET, 2008a. Country : Greece. http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.
- EUROPEAN SCHOOLNET, 2008b. Country: Greece <http://www.europeanschoolnet.org/ww/en/pub/eun/network/belgium.htm> Accessed on 25 August 2008.
- EURYDICE Database. 2008 <http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008.
- IFLA (International Federation of Library Associations), 2002. *The School Library : Today and Tomorrow / La Bibliothèque Scolaire : Aujourd'hui et demain / La Biblioteca Escolar : Presente y futuro*. The Hague : IFLA. <http://www.scribd.com/doc/3721740/SchoolLibrary-today-tomorrow> Accessed on 8 November, 2008.
- NATIONAL LIBRARY OF GREECE. <http://www.nlg.gr/english/> Accessed on 11 November 2008.
- PAPAZOGLOU, Alexandra and Eva Semertzaki. 2001. *Changes and developments in Greek libraries*. The Electronic Library, 2001, Vol. 19, Nr. 3, page 158 – 167. Bingley, U.K. : Emerald Group Publishing Ltd.
- SAITIS, A. 2004. *School libraries in Greece: A comparative study of public primary schools in rural and urban areas*. Library & Information Science Research, Vol. 26, Issue 2, Spring 2004. Pages 201-220.
- SKEPASTIANU, Maria, 1990. *School libraries in Greece and the existing legislation*. International Library Review, Vol. 44, Nr. 4, page 251 -261. Dec. 1990.
- TZEKAKIS, Michael. <http://www.loc.gov/rr/european/GrkColl/tzekakis.html> Accessed on 12 September 2008.

Name of country: Hungary/ Magyarország/ Hongarije - HU

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Hungary

1	Population ranking:	19 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 64. 17.3% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 16 5.5% of GDP
4	Adult literacy	99.4%
5	Compulsory education	10 years or 13 years – Unclear. See World Bank Data Query, 2008 and Eurydice, 2004.
6	Primary school and secondary school enrolment	97%
7	School attendance of children from minority groups	See Amnesty International, 2007 and COE, 2006.
8	PISA score	European score 18 of the 36 European countries which took part in 2006. Scores almost identical to 2003 scores. Science scores above the norm: Maths and Reading scores below norm.
9	PIRLS score	High score. European score 3 in 2006 of the 27 European countries which took part in 2006. However, the average age of pupils who were tested was 10.7 years – this is very high.
10	Statistics of use of ICT in schools	See Korte and Hüsing, 2006
11	ICT in the school library 2006	37%
12	ICT policy in schools	European Schoolnet 2008a and 2008b.
13	Media literacy	See European Commission, 2007.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	4.347
16d	National school library law	Yes
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See British Council, 2006
16h	School libraries with internet access to users	81-100%

Hungary is a middle-income nation with a stable market economy. However, during the global financial crisis which took place in October 2008, Hungary experienced severe financial problems. The IMF (International Monetary Fund) has come to Hungary's aid with a financial package (Telegraph, 2008). It is unknown at the time of writing what the effect of the global financial crisis will have on the contents of this report and on the attempts of Hungary to improve educational policies.

Statistics show that in 2001 (Eurostat, 2005), Hungary spent less of its GDP on education than in 2005 (CIA, 2008), thus it has increased its expenditure on education.

EURYDICE, 2004. Euroeducation, 2008 and Country Studies – Hungary, 2008 have provided background information about (secondary) schools in Hungary.

Hungary has an adult literacy score of 99.4% (men and women over 15 years of age who could read and write).

Hungary took part in the PISA testing 2003 and 2006: its scores are slightly below the norm, except in science. The scores which were obtained in 2006 were almost identical to those in 2001. The results which were obtained in 2006 are similar to those of other middle income EU members in Europe.

Hungary's score in the PIRLS 2006 score was higher its score in the 2001 test. Also, its ranking in Europe was higher, even though more European countries took part in the PIRLS testing 2006.

Education reforms have been taking place in Hungary since 2003; these reforms aim at the overall modernization of the education system, in order to achieve a uniform quality in all schools. The aim is to approach learning from the point of view of the child. to reduce stress for pupils and increase their classroom competencies.

ICT is gradually being introduced into Hungarian schools, step-by-step although funding is sometimes a problem.

It would seem that media-education and the teaching of information literacy skills to both teachers and pupils are matters which still need to be carefully addressed.

Reliable, recent English language information about libraries in Hungary was difficult to find, however Hungary seems to have a strong school library tradition.

There is a school library law in Hungary. All schools in compulsory education have a school library with a trained school librarian. These librarians have expressed their enthusiasm for their work to the international school library world.

Since there has been no national survey, it is difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto

While quite a lot of information was available about school libraries in Hungary, much of it was dated (UNESCO, 1987, Segbert, 1998). However, Celler (UNESCO, 1987) made some interesting statements about the transformation of school libraries into media centres. She wrote about the changing attitudes of people and the expectations of school leaders and school librarians in this ever-changing process.

Reference to the information which has been obtained about school libraries, shows that 81-100% of (the large number of) school libraries in Hungary have Internet access for users.

However, the EMPIRICA report (Korte & Hüsing, 2006) shows that, in 2006, only 37% of schools provide computers in the school library. This information is therefore conflicting.

The IASL (2004 and 2007) has also supplied information about school libraries in Hungary and also about various celebrations of International School Library Day in Hungary in 2007.

The researcher received 24 E-mails and messages (in English) from school librarians in different schools throughout Hungary. This demonstrated the enthusiasm which many Hungarian school librarians have for their work. They also helped to confirm that fact that school librarians in Hungary are willing to co-operate with school librarians from countries throughout the world, so that they can learn from each other.

There is a School Library Section of the Hungarian Library Association.

Two Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups.

Specific References: Hungary

BRITISH COUNCIL, 2006. *Libraries and Librarianship in Hungary*.
http://www.ki.oszk.hu/old/dok/kiadv_2006/images/hungarianlib_2006.pdf Accessed on 2 October 2008.

EUROPEAN SCHOOLNET, 2008a. Country : Hungary.
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008b. Country: Hungary.
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/hungary.htm> Accessed on 25 August 2008.

EURYDICE Database. (2008a)

<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6>

Accessed on 6 August 2008.

IASL (International Association of School Librarianship), 2007. International School Library Day. Hungary

<http://www.iasl-online.org/events/isld/index.htm> Accessed on 5 November 2008 and <http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008 .

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's

Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

SEGBERT, Monica, 1998. *The Evolving Library Scene in Hungary*,

<http://cordis.europa.eu/libraries/en/cee/hungary.htm#title36> Accessed on 2 October 2008.

TELEGRAPH. *Financial crisis: IMF agrees to \$25.1bn rescue deal for Hungary*. 29 October, 2008.

<http://www.telegraph.co.uk/finance/financetopics/financialcrisis/3276501/Financial-crisis-IMF-agrees-to-25.1bn-rescue-deal-for-Hungary.html>. Accessed on 11 November 2008.

UNESCO (United Nations Education, Scientific and Cultural Organisation), 1987. *From School Libraries to School*

Media Centres: Experiences, the Present Situation and Possible Improvement. Editor: Celler, Z.

http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED351023&ERICExtSearch_SearchType_0=no&accno=ED351023 Accessed on 18 August

2008

UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global*

Monitoring Report. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.

Name of country: Iceland - IS

Indicators which are relevant to this study.

- Member of the Council of Europe

Note: Information and statistics in this report were recorded prior to the worldwide financial crisis which began in 2008 and affected Iceland severely.

Specific conclusions – Iceland

1	Population ranking:	49 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 8
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 3 7.6% of GDP
4	Adult literacy	98.2%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	99%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	European score 16 of the 36 European countries which took part in 2006
9	PIRLS score	See para 4. European score 21 in 2006 of the 27 European countries which took part in 2006.
10	Statistics of use of ICT in schools	See Korte and Hüsing, 2006
11	ICT in the school library 2006	49%
12	ICT policy in schools	See European Schoolnet 2008
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Libraries in every primary and secondary school
16d	National school library law	Yes
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	81-100%

Iceland is a small, formerly wealthy country. During the global financial crisis which took place in October 2008, Iceland experienced severe financial problems. It is unknown at the time of writing what the effect of the global financial crisis will have on the contents of this report on Iceland.

It is not a member of the European Union, and therefore did not take part in all of the surveys which were used in this research.

The percentage of GDP spent on education is high. Statistics show that in 2005 (CIA, 2008), Iceland spent more of its GDP on education than in 2001 (Eurostat, 2008), thus it has increased its expenditure on education.

The percentage of the population which is between 0 and 29 years of age is very high (43% in 2006) when compared to other countries in this survey. It would therefore seem essential that this large percentage of the population receives a good education.

EURYDICE, 2008 had provided some general background information about (secondary) schools in Iceland

Despite these excellent facilities, it should be noted that Iceland's score in the PIRLS 2006 score was slightly lower than its score in the 2001 test. Also, its ranking in Europe was lower, however this is partly due to the fact that more European countries took part in the PIRLS testing 2006.

Also, although its score was above the norm, Iceland's score in the PISA testing (2006 report) declined. This leaves room for some doubt about whether or not the quality of education and the educational achievement of pupils has increased, after the large investment in ICT facilities.

For a country with a very high percentage expenditure of the GDP on education, it is surprising that these scores are not higher, however a clear reason for these acceptable but relatively low scores is not evident.

The schools are well equipped with ICT, but some of the information which has been supplied is conflicting. While the EMPIRICA study (Korte and Hüsing, 2006) reports that the percentage of schools providing computers in the school library in 2006 is 49%, the IFLA/FAIFE World Report 2007 reports that 81-100% of all school libraries have internet access.

The IFLA/FAIFE World Report, 2007 reports that Internet access in school libraries is free of charge. There is also a great deal of local content on the Internet and an equal amount of information is available in the local language

Although school librarians in Iceland have played an important role in international school librarianship in the past, there is not much recent, specific information about the role played by school library and information centres and by school librarians in Iceland in recent years. Clyde (IFLA, 2002), Hauksdóttir (2001), Hafsteinsdóttir (1997) and Ray (Editor, 1978) have supplied interesting information about school libraries and school librarianship in Iceland.

Specific References: Iceland

EUROPEAN SCHOOLNET, 2008. Country: Iceland .

<http://www.europeanschoolnet.org/ww/en/pub/eun/network/iceland.htm> Accessed on 25 August 2008.

EUROSTAT. European Commission , 2005. *UOE and National Accounts, 2005. Key Data on Education in*

Europe, 2005. http://eacea.ec.europa.eu/ressources/eurydice/pdf_images/052ENXX010D01x0101f.pdf
Accessed on 1 October 2008.

EURYDICE. 2008b

<http://www.eurydice.org/resources/Eurydice/pdf/052ENindicateurs/052ENXX010D01x0101f.pdf>
Accessed on 22 September 2008.

EURYDICE . (2008c)

<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6>
Accessed on 6 August 2008.

HAFSTEINSDÓTTIR, Hafdis Dögg, 2001. *The attitude of Icelandic principals towards school libraries : A Survey.* Paper presented at the 63rd IFLA General Conference in 1997.

HAUKSDÓTTIR, Sigrún, 2001. *Consortium of Icelandic Libraries : A National Library System.* Reykjavík : National- and University Library.

IFLA (International Federation of Library Associations), 2002. *The School Library : Today and Tomorrow / La Bibliothèque Scolaire : Aujourd'hui et demain / La Biblioteca Escolar : Presente y futuro.* The Hague : IFLA.
<http://www.scribd.com/doc/3721740/SchoolLibrary-today-tomorrow> Accessed on 8 November, 2008.

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

Name of country: Éire/Ireland/Ierland - IE

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Rep. of Ireland

1	Population ranking:	37 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 12
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 26 4.7% of GDP
4	Adult literacy	99%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	100% See Eurydice, 2007 and Bayou, Gouel and Savageot, 2005.
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Scores in 2003 and 2006 are almost identical. European score 7 of the 36 European countries which took part in 2006
9	PIRLS score	European score 4 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte and Hüsing, 2006
11	ICT in the school library 2006	11% in 2006
12	ICT policy in schools	See European Schoolnet 2008
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 but no specific information about school libraries
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unclear
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	81-100%

The information shown in the above report records statistics which could be said to be similar to those reported by a number of other prosperous countries in the European Union. Nevertheless, the percentage GNI (Gross national income) per capita spent on education in 2005 is lower than the expenditure of some of the other prosperous countries. The percentage of GDP which Ireland spent on education in 2005 gave it a score of 26 in the European ranking. However, statistics show that in 2005 (CIA, 2008), Ireland spent more of its GDP on education than in 2001 (Eurostat, 2006), thus it has increased its expenditure on education.

The percentage of the population which is between 0 and 29 years of age is very high (45% in 2002) when compared to other countries in this survey. It would therefore seem essential that this large percentage of the population receives a good education.

Ireland has shown initiative regarding the implementation of ICT into schools throughout Ireland and specifically with regard to the importance of Media Education. There also seems to be a realisation of the important role played by quality school libraries in the learning process. Ireland's scores for reading in both the PIRLS testing (2006) and the PISA testing (2003 and 2006) are high and above the norm.

The IFLA/FAIFE World Report, 2007 reports that precise data about the number of school libraries in Ireland is unavailable. Internet access in schools in Ireland is free of charge. The library association is in favour of

filtering information to a certain extent (e.g. for children) and the use of filtering software is widespread in libraries. The reasons given are the protection of children.

The Clare Education Centre, Ennis, Co. Clare, Ireland took part in the international (European) GrandSLAM project (GrandSLAM, 2002). The objective of the GrandSLAM project was to *leverage the metamorphosis of school libraries from multi-media-centers to Information and Learning Centres*

The School Library Association of the Republic of Ireland (SLARI), (2008b) has published a policy statement “The School Library in the 21st Century : an Agent for Change”. This statement calls for The establishment of a comprehensive system of school libraries throughout Ireland, ongoing public funding to support a high standard of school library provision and access to the services of a professionally qualified librarian for all primary and post-primary schools. SLARI believes there is an urgent need for the establishment of a comprehensive system of school libraries throughout the country, in recognition of the following:

- The necessity for all students and teachers to have access to a wide range of information sources in an increasingly resource-based system of education.
- The need to equip students for full participation in the rapidly changing “knowledge society”.
- The importance of developing students’ information literacy and information handling skills
- The vital role of the school library in encouraging young people to develop good reading habits.

This is a document goes on the state that It is vital that every school, both primary and post-primary, should have access to the services of a professionally trained qualified librarian.

In 1996, the Library Association of Ireland (2005) published a statement regarding its attitude towards the importance of school libraries in education in the Republic of Ireland. According to the statement, the library is:

- A main source of information in a school
- The most effective means of access to the range of learning materials demanded by the school curriculum;
- A means of ensuring equality of access to information for students and staff in all schools,
- A means of developing a range of cultural interests including good leisure reading habits.
...

It also states that:

- There should be a statutory obligation to provide effective school libraries at all school levels. This should be supported by realistic, regular financial commitment.
- School library standards should comply with those published by the Library Association.
- All schools should have access to the expertise of a professionally qualified librarian who should liaise with staff and students, to exploit and promote the school library to its full potential. ...
- *From the earliest years to school leaving, all pupils should participate in information skills programmes ...*

Although this information is dated, it is still relevant.

The School Library Association of the Republic of Ireland (SLARI) (2008c) provides information about the training of school librarians. It explains that, *at the outset, not all school librarians in the Rep. of Ireland hold a professional qualification. Some school librarians are also teachers. Others have become school librarians through experience and their love of reading.* It goes on to give details about full time and part time courses and also universities which offer distance learning possibilities. By taking advantage of these courses, those people who are working in school libraries without a professional qualification are able to obtain one. Two of the universities mentioned on the webpage are offering postgraduate courses (i.e. courses for those who already have a degree at university level).

Department of Education and Science, Republic of Ireland (2008) has announced the extension of the Junior Certificate Support Programme (JCSP) Demonstration Library Project for ten more post primary schools. ... There are now 31 second level schools that have benefited from this initiative. ... While prioritising literacy development of JCSP students, the libraries also provide a service to the whole school, including well stocked teacher resource sections. An advertisement placed by the Ministry of Education and Science for librarians for these positions called for librarians with a library qualification at university level.

Library.ie. (2007) reports that the Government of Ireland 'has allocated over €5 million in funding to enhance school library facilities at schools participating in the DEIS (Delivering Equality of Opportunity in Schools). ... Approved projects include funding for the following:

- Upgrading of existing library facilities;
- Conversion of existing non-core teaching rooms for use as school library;
- Provision of library stock;
- Provision of ICT equipment.

Unfortunately there is no reference to a professionally trained school librarian to run the school library.

Usher. (2007) published the following information about the training of school librarians in the Rep. of Ireland.

'In neither the UK nor the Republic of Ireland are qualified, or even trained, School Librarians a legislative requirement. School inspections and standards do necessitate a school library. Special initiatives may result in qualified librarians in schools, such as the Republic of Ireland's special project for STATE (VEC run) disadvantaged schools has 11 schools a further 40 being phased in over a period of time, where full time qualified librarians have been provided'.

Usher goes on to describe a short module in a diploma course dealing with school librarianship in the Rep. of Ireland. She also states that in the Republic of Ireland the SLARI offers 2 seminars a year, which include practical sessions. There have also been some summer courses in school librarianship from the Church of Ireland College of Education. From next year University College Dublin will be including a new module on school libraries in the syllabus for the Diploma in Library and Information Studies.

Specific References – Rep. of Ireland

DEPARTMENT OF EDUCATION AND SCIENCE, Republic of Ireland. 2008.

<http://www.education.ie/home/home.jsp?maincat=10861&pcategory=10861&ecategor>

Accessed on 22 September 2008.

EUROPEAN SCHOOLNET, 2008. Country - Ireland

<http://www.europeanschoolnet.org/www/en/pub/eun/network/ireland.htm> Accessed on 25 August 2008.

GRANDSLAM 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf>

Accessed on 22 September 2008.

LIBRARY ASSOCIATION OF IRELAND. (1996) <http://www.libraryassociation.ie/policy/schools.htm>

Accessed on 21 February 2005.

LIBRARY.ie, 2007. €5 million allocated for the enhancement of school libraries.

<http://www.library.ie/weblog/2007/12/13/e5-million-allocated-for-the-enhancement-of-school-libraries/>

Accessed on 9 February 2008.

RADHARCH TRUST, Dublin Institute of Technology and Dublin City University, 2007. *Critical Media Literacy in Ireland.* <http://www.mediaconference.ie/files/Radharc.Report.pdf> Accessed on 23 September 2008.

SCHOOL LIBRARY ASSOCIATION OF THE REPUBLIC OF IRELAND (SLARI). (2008a)

<http://slari.ie/aboutus/htm>. Accessed on 10 August 2008.

SCHOOL LIBRARY ASSOCIATION OF THE REPUBLIC OF IRELAND (SLARI). (2008b) *The School Library in the 21st Century : an Agent for Change.* <http://www.sla.org.uk/slari.pdf> Accessed on 10 August 2008.

SCHOOL LIBRARY ASSOCIATION OF THE REPUBLIC OF IRELAND (SLARI). (2008c) *Becoming a school librarian.*

<http://www.slari.ie/schoollibrarian.htm> Accessed on 10 February 2008.

TELEGRAPH. (2008b).

<http://www.telegraph.co.uk/news/yourview/2122874/What-does-Irelands-vote-mean-for-the-EU.html>

Accessed on 22 September 2008.

USHER, Karen, 2007. *School libraries in the U.K. and the Republic of Ireland.*

<http://iflasblog.wordpress.com/category/uk/> Accessed on 21 November 2008

Name of country: Italy/Italia/ Italië - IT

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Italy

1	Population ranking:	6 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 30
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 28 4.5% of GDP
4	Adult literacy	98%
5	Compulsory education	9 years / 11 years (see Para 10a).
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	Decrease in scores in 2006. Score in 2003 and 2006 under the norm. European score 27 of the 36 European countries which took part in 2006
9	PIRLS score	European score 3 of the 27 European countries which took part in 2006. Increase in score since 2001.
10	Statistics of use of ICT in schools	See Korte and Hüsing, 2006
11	ICT in the school library 2006	25% in 2006
12	ICT policy in schools	See European Schoolnet 2008
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 however the source of the data wished to remain anonymous.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	1800 reported in IFLA/FAIFE World Report 2007.
16d	National school library law	No
16e	National school library association	No. Part of Italian Library Association
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unclear. Training programmes do exist, also on-line programmes, but more information is needed.
16h	School libraries with internet access to users	41-60%

The population ranking of Italy is number 6 when compared to the 54 (entire) countries taking part in this report.

The information shown in the above report records statistics which could be said to be similar to those reported by a number of other prosperous countries in the European Union. Nevertheless, the percentage GNI (Gross national income) per capita spent on education in 2005 is lower than the expenditure of some of the other prosperous countries. The percentage of GDP which Ireland spent on education in 2005 gave it a score of 26 in the European ranking. However, statistics show that in 2005 (CIA, 2008), Italy spent less of its GDP on education than in 2001 (Eurostat, 2006),

Some of the information supplied to the EMPIRICA report (Korte and Hüsing, 2006) seems to conflict with other information about Italy. The report refers to the lack of investment which Italy has made in education. One of the reasons for this seems to be the lack of political stability. Bills and laws which request improvements in the educational policy are constantly being withdrawn (or changed) because of this

instability. A clear national educational strategy, for both the implementation of ICT in schools and for the teaching of media- and information literacy skills in Italy, seems to be missing. Poorer regions often score lower than wealthier regions during (international) testing of educational achievement.

Nevertheless, the report confirms that educators and librarians at various levels have attempted to improve this situation, in the best interests of pupils, teachers and parents. Special emphasis has been placed on reading for young children. However, the realisation of the benefits of a strong investment in school librarianship and in the training of qualified teacher librarians who play an integral role in the educational process is not evident.

Italy's scores for reading in the PIRLS testing (2006 and 2001) are high and above the norm.

Guerrini (2007) reviews the work of Italian libraries, as an introduction to the 75th IFLA World Library and Information Conference, which will be held in Milan, Italy in 2009. It contains information (in English about books and reading in Italy, libraries (but not school libraries) in Italy, Network SBN (National Library Service) and other forms of automation, historical heritage and the 'Born to read' project. The researcher contacted Guerrini and asked the following question:

In your article, you mention that school libraries in Italy are rather uncommon, however the IFLA 2007 World Report contains a figure of 1,800 school libraries in Italy. Could you please explain to me if there is a discrepancy. Was there a definition of what a school library actually is, when the figures were sent to the IFLA World Report?

The following answer was received:

in this article we wanted to stress the fact that even if books collections and places are available in Italian schools, unfortunately in most cases there are no adequate library services. For further information you can contact the chair of our School libraries Committee Donatella Lombello.

Information about Italy was returned (anonymously) to the IFLA/FAIFE World Report 2007. According to the report, Internet access is provided free to all school libraries

Born to read (2008) is a national programme, which started in 2000 and encourages children to read from an early age. It is promoted by librarians and paediatricians. It is estimated that 15% of the Italian population has had contact with this project (estimated 3000,000 children under 6 years of age).

In 2006, the Italian Library Association presented a communiqué to the 2006 IASL Conference, Lisbon, Portugal Assembly of Associations (IASL, 2006), giving detailed information about the efforts of some educators and school librarians in Italy to implement programmes related to school library advocacy, the introduction of ICT in schools, E-learning, information literacy, literacy and professional development for school librarians. It also presented information about research and special projects which are taking place in Italy. In conclusion, it listed challenges which still need to be met and concerns related to school library work in this country.

The ENSIL Foundation (2008) reports the activities of its members in Italy, especially during International School Library Day in 2007, and International School Library Month in 2008. During International School Library Month, Ms. Luisa Marquardt, received international recognition for her constant work for school librarianship, awarded by IASL (International Association for School Librarianship).

School Library Law in Italy. One autonomous province in Italy has a school library law (Provincia di Bolzano). More information can be found in: Legge provinciale 7 agosto 1990, n. 17 "Interventi per la promozione delle biblioteche scolastiche" <http://www.provincia.bz.it/intendenza-scolastica/Ordinamento/pagine/19.htm> (in a certain sense, its roots can be found in the "Youth Law" Legge provinciale 7 novembre 1983, n. 41, <http://www.provincia.bz.it/cultura/downloads/1504/Legge%20giovani.pdf>, which fosters actions towards youth's social and cultural development).

Information was also received during face-to-face interviews held in Rome in September 2007, that a Bill for a National School Library Law had been prepared and was being presented to the Italian Parliament. Since then, because of the fact that a new election has taken place and new politicians are in office, the process for the presentation of this Bill needs to begin again.

The article written by Odasso (2007) contains very important statements about the introduction of Information Literacy skills into an upper secondary school in Italy in the middle of the nineties. He reports that, thanks to the co-operation of an enterprising school librarian and some teachers, this experimentation gained a strong reputation and produced good documentation which had a deep impact on the community of Italian teachers/school librarians (SLans).

Biblioteche nelle Scuole (2008) connects schools with the local context and the library world, providing innovative services, granting access to information, by the means of co-operation and the services of the Italian National Library Service (SBN). The main aims of the project are: providing a wider access to information; enhancing information literacy, and promoting reading. The overall goal is to contribute to lifelong learning, for a continuous cultural development and the social inclusion. This national three-year pilot project, launched in 2004, was funded and supported by the Ministry of Education, University and Research, Direzione Generale Servizi Informativi (MIUR-DGSI) and Department of Technology and Innovation (DIT), in collaboration with National Centre for the Union Catalogue (ICCU) and the Ministry of Cultural Heritage (MiBAC). More information on www.biblioscuole.it.

Ray (Editor, 1978) provides background information about school libraries in the 1970's.

Specific References - Italy

Biblioteche nelle Scuole, (2008). Retrieved from the ENSIL (European Network for School Librarianship and Information Literacy), www.ensil.eu. Accessed on 25 May 2008.

Born to read (2008). <http://www.natiperleggere.it/> Accessed on 12 November 2008

ENSIL Foundation, 2008. www.ensil.eu Accessed on 24 May 2008.

EUROPEAN SCHOOLNET, 2007. Country report: Italy). http://insight.eun.org/www/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Italy <http://www.europeanschoolnet.org/www/en/pub/eun/network/italy.htm> Accessed on 25 August 2008.

EURYDICE Database. (2008a) <http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008.

GUERRINI, M (2007). *Libraries in Italy : a brief overview* (2007). Rome : Italian Library Association.

IASL (International Association of School Librarianship, 2006. *Assembly of Associations Communiqué 2008*. The 2008 IASL Conference, Lisbon, Portugal <http://www.iasl-online.org/members/communique/assofass2006c.htm#dbv> Accessed on 21 Aug. 2008

ODASSO, Paolo, 2007. *Information Literacy in Italy*. The Hague : IFLA SL Newsletter. Issue 43/5. <http://iflasblog.wordpress.com/2007/01/14/information-literacy-in-italy/> Accessed on 8 November 2008. Published January 14, 2007

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

Name of country: Kazakhstan – KZ

Indicators which are relevant to this study.

Note:

Although Kazakhstan may be considered to be located outside Europe (Central Asia), it was a member of the former USSR, and was included in some UNICEF and UNESCO studies and reports which provided information about Europe and Central Asia. These studies are relevant to this research and for this reason, Kazakhstan has been included in this study.

Interesting information has also been provided about school libraries in Kazakhstan.

Specific conclusions – Kazakhstan

1	Population ranking:	13 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 94 34.64% of population below national poverty line.
3	Expenditure on education	European rank – 47. 2.3% of GDP
4	Adult literacy	99.5%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%.
7	School attendance of children from minority groups	No specific information available
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Partially – provided some information
16c	Number of school libraries	6,852
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below.
16h	School libraries with internet access to users	Less than 20%

The research shows that investment is being made into the quality of education in Kazakhstan. Very little is known about school libraries in this country, except for the large number of these libraries. If the statistics about the number of schools (9a in Table of Specific Conclusions) are at all accurate, then it could be assumed that about 80% of schools in Kazakhstan have a school library, but nothing is known about the conditions in these libraries, or about the introduction of ICT into the schools and libraries.

Marley [2004] talks about the enthusiasm of the children's librarians and the need for much more children's literature in the national language, Kazak.

USAID (2006) describes the yearly celebration of Reading Day in Kazakhstan. This celebration which is held in community libraries is organized by the Kazakhstan Reading Association with support from USAID. The event demonstrates that reading is fun, and encourages readers of all ages to visit libraries. The purpose of this celebration is to teach children and adults alike to share the joy of reading.

Champeny and Bergalieve (2006) report that attention is being paid to the training of librarians at Masters Degree level, however it is unclear whether or not school librarians are being trained at Masters Degree level in Kazakhstan.

The researcher would like to state that when asked to provide information for this report, librarians in Kazakhstan were very friendly and encouraging and would have liked to provide more information but sometimes it was just not available. The writer thanks them for their efforts.

Specific References: Kazakhstan

- CHAMPENY, L. & BERGALIEVA, A. (2006). *Developing a Master in Library and Information Science (MLIS) Curriculum for Central Asia: Integrating Kazakh, Russian and North American concepts of libraries and librarianship*. Presented at the World Library and Information Congress, 2006 in Seoul, Korea.
- MARLEY, Anne. 2004. *From East to West*. The School Librarian, Winter 2006. Warnborough, U.K., : School Library Association.
- UNESCO, 2007b. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.
- UNICEF. United Nations Children's Fund http://www.unicef.org/infobycountry/kazakhstan_background.html Accessed on 4 May 2008
- UNdata. <http://data.un.org/Data.aspx?d=UNESCO&f=srID%3A25510> Accessed on 12 November 2008.
- UNESCO Almaty Office , 2004a. *Sharing good practices information access through libraries in Kazakhstan*. <http://www.unesco.kz/index.php?newsid=801> Accessed on 21 September 2008.
- UNESCO, 2004b. UNESCO : *Sharing good practices information access through libraries in Kazakhstan*. http://portal.unesco.org/ci/en/ev.php-URL_ID=16127&URL_DO=DO_PRINTOAGE&... Accessed on 21 September 2008.
- USAID. 2006. www.usaid.gov/stories/kazakhstan/pc_kazak_reading.html Accessed on 11 August 2008.
- WORLD BANK (2008b) <http://www.worldbank.org.kz/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/KAZAKHSTANEXTN/0,,contentMDK:20629270~menuPK:361877~pagePK:141137~piPK:141127~theSitePK:361869,00.html> Accessed on 11 September 2008.

Name of country: Kosovo.

Indicators which are relevant to this study.

- Potential member of the European Union

Information below provides a description of the occurrences in Kosovo which have made it very difficult to complete the Table -

Specific conclusions – Kosovo

1	Population ranking:	Unavailable for reasons described below
2	GNI ranking per capita	Unavailable for reasons described below
3	Expenditure on education	Unavailable for reasons described below
4	Adult literacy	Unavailable
5	Compulsory education	Unavailable for reasons described below
6	Primary school and secondary school enrolment	Unavailable
7	School attendance of children from minority groups	See UNICEF, 2007
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	See below
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	See below
16d	National school library law	Unknown
16e	National school library association	See below
16f	National survey of school libraries	See below
16g	Training of teacher librarians	See below.
16h	School libraries with internet access to users	Unavailable

During the 1990's, armed conflict took place between Albanians and Serbs living in Kosovo. In 1999, the UN Security Council Resolution 1244 (1999) placed Kosovo under a transitional administration, the UN Interim Administration Mission in Kosovo (UNMIK), pending a determination of Kosovo's future status. On 17 February 2008, Kosovo declared its independence from Serbia on 17 February 2008, during the period that this research was being finalized. For this reason, very little current information about school libraries in Kosovo is available. As explained in the information which has been supplied about Serbia, some of the statistics shown for Serbia also include information about Kosovo. (Also, please refer to the background information on Serbia, which is contained in this appendix.

The basic lack of information about Kosovo as an independent nation makes it impossible to draw conclusions at this time.

In 2008 when statistics for this research were collected, the population of the new country of Kosovo has, as yet, not been made available on the Population Counter ¹ (<http://rumkin.com/tools/population/>) or the CIA World Factbook ⁴, both of which were accessed on 12 August 2008, but the Encyclopedia Britannica ² estimates the population at 2,143,000 .,

¹ <http://rumkin.com/tools/population/> Accessed on 12 August 2008

⁴ CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-world-factbook/index.html>

² ENCYCLOPEDIA BRITANNICA (2008b) <http://www.britannica.com/EBchecked/topic/322726/Kosovo> Accessed on 13 August 2008.

Information on the Gross national income per capita 2007, Atlas method and PPP, was also unavailable since Kosovo did not exist as an independent country when these figures were collected.

At the time of writing, no current, specific information is available about school libraries, however, as explained in the information which has been supplied about Serbia, some of the statistics shown for Serbia also include information about Kosovo.

It would be most interesting to find out how the renewal of school libraries in Kosovo has progressed since the 2000 report (explained in detail below) was written.

In 2000, Frederiksen & Bakken carried out research at the request of UNESCO, CoE and IFLA/FAIFE; the project was known as the Kosova Library Mission. The Abstract of their report contains the following statement:

'Many public and school libraries, especially in the countryside, have been totally burned down, others have had their book collections removed or destroyed, and those who are still functioning suffer from the effects of almost 10 years of neglect in acquisitions. Equally many library books have been burned along with the homes of users. An estimated total of almost half the stocks of all the public libraries are lost. A great part of the remaining books are either outdated or irrelevant to local inhabitants due to their ideological, linguistic or ethnic character. Practically all equipment has been removed and most of the present staff needs training after a long period without professional practice and systematic education.

There is no co-operation, or even contact, between professionals of the ethnic Albanian majority and professionals in ethnic Serbian enclaves.

In general there is a heavy need for reading rooms, children's literature, current professional literature and access to new technology. International support in terms of funding and professional assistance is now needed to reconstruct libraries and a functioning library network.

Library services can be an important, and fairly easily applicable, tool in the promotion of reading, education and culture in a region with few or no other offerings and a population with a large share of children and youth. Libraries can, not least in an area like Kosova, provide local gateways to knowledge, reflect the plurality and diversity of society and support the process of democratization. "

This report contains detailed information about school libraries before the war, as follows:

'School libraries were under the jurisdiction of educational authorities and each primary and secondary school was obliged to provide a library, but in the pre-war period a great number of schools did not have their own library. Official statistics shows that there were 967 elementary schools and 69 secondary schools in the Kosova region in 1989 and only 328 school libraries (Figure 1.) Far from all had established their own libraries and many pupils were directed to public libraries for their reading. A significant part of the public library budget had to be spent for purchasing schoolbooks ".

In 1989 school libraries were reported as having a total of 1,244,000 volumes in their collections. In 1995 this had decreased to 578,000 volumes.

The decrease in the number of both public and school libraries, reported in the referenced document, was significantly higher than in the number of research and special libraries.

During the summer of 1999 IFLA/FAIFE received reports of the massive Serbian abolition and demolition of ethnic Albanian literature and libraries, which has taken place during the period of Yugoslav rule. FAIFE also received reports that the destruction of libraries and book collections was still going on in Kosova, but that the roles had changed and that Serb books and libraries were now being destroyed by ethnic Albanians. On June 9 1999 UN Secretary-General's Special Envoy for the Balkans, Carl Bildt, described Kosova as a "devastated wasteland that will have to be rebuilt from the bottom up". He stressed that this would include the reconstruction of archives and libraries and that there was evidence of massive destruction of the collective memory.

Para 4.4 of the referenced report contains the following information about school libraries:

'The large majority of the librarians we met during our stay in Kosova was rooted in either public or academic libraries. When asked about school libraries they frequently answered that each primary school had its own library, and that they were intact and had survived the war. These answers were contradicted by the fact that most public library branches destroyed were located in countryside

villages and often served as both school and public libraries. Furthermore it is certain that not every school had a library even according to official FRY statistics. And taking into account the situation of the Kosova educational system since 1989 - an official Serb-dominated system and a parallel in official Albanian, it is more than unlikely. They seem to refer more to the intentions of the legal acts, than actual facts.

UNICEF assessed the situation of 1.058, out of a total of 1.200 primary and secondary schools in Kosova. 873 had been committed for repair - 132 schools were totally destroyed and needed to be totally rebuilt. Along with these schools, school libraries were also devastated.

271 schools are in the process of repair, and 379 have been completed. UNICEF has funded the work on 35 of the completed schools, UNHCR 96, and ECHO 111. The Red Cross and bilateral donations through NGOs and international organisations have funded the rest. ...

Due to the total destruction as consequence of the war there were no books available for more than half the million pupils of elementary and secondary school at the beginning of the school year 1999-2000....

Under the auspices of UNMIK a Consortium on Textbooks for Kosova was established.... The project was coordinated by KFOS and OSI Budapest and the books were distributed through the network of Libri Shkollor, which covers every school in Kosova. ...

On the 20 March 2000, the OSCE started a distribution project delivering 10,000 children's books to schools across Kosova. ...

When the 2000 report was written, there was a library law in Kosovo: April 28 1978 (KK No. 630-2/77), which defined the activities of various libraries, however if focused on general or national libraries (public and scientific libraries, including the National and University Library). There are were few specific regulations concerning special libraries and school libraries

The Kosova Association of Librarians) was re-established in February 2000.

The writers of the report made many recommendations for the re-establishment and modernization of libraries, including school libraries in Kosovo. They referred to the IFLA/UNESCO School Library Manifesto and recommended that this document should be used as a basis when school libraries were being renewed.

Also, they made recommendations about the stimulation of publishing of books (also children's books) in three languages - Albanian, Serb and Turkish.

Specific References: Kosovo

ENCYCLOPEDIA BRITANNICA (2008b) <http://www.britannica.com/EBchecked/topic/322726/Kosovo> Accessed on 13 August 2008.

FREDERIKSEN, CARSTEN and BAKKEN, FRODE. 2000. *Libraries in Kosova/Kosovo : A general assessment and a short and medium-term development plan.* Report commissioned by UNESCO, CoE and IFLA/FAIFE. <http://www.google.nl/search?hl=nl&q=IFLA%2FFAIFE+World+Report+Macedonia&meta> Accessed on 14 September 2008.

POPULATION COUNTER (2008) <http://rumkin.com/tools/population/> Accessed on 12 August 2008

UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe.* 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.

Name of country: Kyrgyzstan (Kyrgyz Republic) - KG

Indicators which are relevant to this study.

Note:

Although Kyrgyzstan may be considered to be located outside Europe (Central Asia), it was a member of the former USSR, and was included in some UNICEF and UNESCO studies and reports which provided information about Europe and Central Asia. These studies are relevant to this research and for this reason, Kyrgyzstan has been included in this study.

Specific conclusions – Kyrgyzstan

1	Population ranking:	29 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 175. 41.0% of population below national poverty line.
3	Expenditure on education	European rank – 25. 4.9% of GDP
4	Adult literacy	98.7%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	Unlikely to achieve the NER (Net Enrolment Rates) for universal primary education (UPE) Millennium goals by 2015. Growth Situation 2002 is negative.
7	School attendance of children from minority groups	Unknown
8	PISA score	Low scores – well below the norm. Score 36 of the 36 countries which took part in 2006
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Did not returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Partially
16c	Number of school libraries	2133
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	No
16g	Training of teacher librarians	See below.
16h	School libraries with internet access to users	Less than 20%

Kyrgyzstan is one of the poorest countries in this survey. It is a former member of the USSR, and for that reason has been included in this study. Kyrgyzstan is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

Statistics show that in 2005 (CIA, 2008), Kyrgyzstan spent more of its GDP on education than in 2004 thus it has increased its expenditure on education.

It can be concluded that not much current information is available in the English language about schools in Kyrgyzstan, however the 2008 UNESCO report “*Status of Teacher Education in the Asia-Pacific Region*” provides some interesting information.

Kyrgyzstan is unlikely to achieve the NER (Net Enrolment Rates) for universal primary education (UPE) Millennium goals by 2015. In this same report, the Growth Situation 2002 for Kyrgyzstan is negative (Bayou 2006).

Very little information about libraries and school libraries in Kyrgyzstan is available, although Kyrgyzstan does have a National Library. Kyrgyzstan did not take part in the IFLA/FAIFE World Report 2007.

The intervention of Mr. Herb Landau,(ALA, 2007) and the work carried out by information officers of the U.S. Embassy in Bishtek, have added an interesting aspect to this report on Kyrgyzstan. They made it possible for the researcher to contact the Library and Information Consortium in Bishkek, Kyrgyzstan. This consortium works together with school libraries. The researcher has obtained the following information:

- There is a school library and every primary and secondary school in Kyrgyzstan
- These facilities are not run by a trained librarian.
- Librarians are still being trained at university level at the Bishkek Humanitarian University, Faculty of Information and Social Work.
- Kyrgyzstan does not have national or provincial school library associations.

The researcher wishes to take this opportunity to thank these people for their friendliness, help and assistance.

Specific References: Kyrgyzstan

ALA (American Library Association) (2007a. <http://www.ilovelibraries.org/topstories/kyrgyzstan.cfm>
Accessed on 11 August 2008.

DEXYATKOVA, L. 2008. E-mail dated 4 September from U.S. Embassy Bishtek. Kyrgyz Republic

UNDP (United Nations Development Programme, 2008b. *Human Development report 2007/2008*.
http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf Accessed on 28 August 2008

UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.

UNESCO, 2008. *Status of Teacher Education in the Asia-Pacific Region*.
<http://www.reading.org/downloads/international/Status%20of%20Teacher%20Education%20in%20the%20Asia-Pacific%20Region%20Final.pdf> Accessed on 12 November 2008.

UNICEF (United Nations Children's Fund) (2008b) ¹ http://www.unicef.org/infobycountry/kyrgyzstan_background.html
Accessed on 4 May 2008

Name of country: Latvia/Latvija/Letland - LV

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Latvia

1	Population ranking:	41 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 68. 4.7% of population living under \$2 (PPP) per day.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 22 5.1% of GDP
4	Adult literacy	100%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	100%. Latvia is not expected to reach the NER Millennium Goals. Growth situation is described as “low”.
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	European score 19 of the 36 European countries which took part in 2006. Scores slightly below the norm.
9	PIRLS score	See para 4. European score 11 in 2006 of the 27 European countries which took part in 2006.
10	Statistics of use of ICT in schools	See Korte and Hüsing, 2006
11	ICT in the school library 2006	67%
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	1.099
16d	National school library law	Unclear
16e	National school library association	Yes
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See para 11.
16h	School libraries with internet access to users	41-60%

This report clearly indicates that Latvia is attempting to educate its children and young people so that they can have a competitive position in the knowledge society. This is reflected in the 2007 report which was submitted to the Eurydice Database. Statistics show that in 2001 (Eurostat, 2005), Latvia spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education. It is interesting to note that in 2006, the three Baltic States – Estonia, Latvia and Lithuania – all spent approximately the same amount of the GDP on education. This expenditure was considerably higher than that of some other “wealthier” EU countries. A specific choice seems to have been made for quality in education.

The British Council (2008) describes education in Latvia and explains the ethnic mix of the population of Latvia, which is largely the result of massive post war immigration, which resulted in a decline in the share of ethnic Latvians from 77 percent in 1935 to 52 percent in 1989. Therefore there is a feeling that Latvia is a country of two communities: Latvians and Russian speakers. Latvian is the only official language though Russian is widely spoken and TV and newspapers for instance are available in Latvian and Russian.

When using the PISA and PIRLS testing as an indication (measurement) of international academic achievement, it could be pointed out that Latvia scored higher than Lithuania in both these tests in 2006. Estonia score very well in the PISA test 2006 – much higher than Latvia and Lithuania – but did not take part in the PIRLS test. Although Latvia scored well in the PIRLS testing 2006, the average age of the children who were tested was 11 years of age. Many children who were tested in other European countries were much younger when they took the test and could be said to have less reading experience.

Latvia is a country which has shown a definite ininterest in the quality of school librarianship, as a tool for advancement of pupils in the knowledge society. Papers to this effect have been presented at international conferences. Also the University of Latvia has set up a special programme, to help school librarians retrain themselves in order to cope with the requirement and challenges of the information age. Specifically, reference has been made to the pedagogical significance of the work done by the school librarian / teacher librarian.

Lee, Brown, Mekis and Singh (2003) reported the following:

- *“Many schools in Latvia have a school library facility and collection. Some have well-trained professional librarians working in the facilities. Frequently these professionals do not have a teaching background. There are professional training facilities in Riga, and some courses are offered in regional colleges.*
- *At this point there appears to be little attention to the integration of the library into the teaching / learning process. ...*
- *Unfortunately, many libraries are also responsible for storage and distribution of textbooks. ...*
- *An active and strong computer technology program is being mounted through the Ministry. ... Only in a few schools is there a close working relationship between the technology teachers and the librarians.*
- *A very successful Children’s Literature Centre is operated by the National Library.*
- *The Latvian School Library Association is quite active.*
- *Courses are beginning to be offered in the Faculty of Library Science related to school librarianship.*
- *There is a serious need for leadership from the Ministry of Education, which would put a pedagogical face on the components of a school library program. The leaders at provincial level have a wide latitude in making decisions about what programs they will fund (within their limited budgets).*

The IFLA/FAIFE World Report, 2007 reports that Internet penetration in Latvia appears to be increasing steadily. A third-party source reported that the Bill Gates Foundation donated US\$ 16.2 million to provide public libraries with broadband connections, a wireless network, three computers per library, and training for librarians and users.

The IASL (2007) has published information from a school in Latvia, regarding the celebration of International School Library Day 2007. The researcher contacted this school to ask for more information about school libraries in Latvia. An enthusiastic answer was received from English teacher, on behalf of the school librarian, however answers to the questionnaire were not received.

Jankava (2006) presented a paper at the Thirteenth International Conference “Crimea 2006”, Yalta, Ukraine, June 10-18, 2006. The original paper was written in Russian, however there is an English translation. The goal of the paper is to explore the place, role and aspects of pedagogy in school library work. It describes the new professional roles of the school librarian in the pedagogical process. Jankava clearly states that an effective school library “provide informational support forthe learning process and improves the quality of education. ... An effective school library is a library lead by a librarian, who has clearly defined his role in information-centres pedagogy. ... However, school librarians have not their own clearly defined pedagogical platform.

The Latvia School Library Association (LSBA) to the IASL (2002) Assembly of Associations, Communiqué 2002, as follows:

- *School libraries in Latvia are being automated. The University of Latvia organises free courses for teacher-librarians on how to work with the system.*
- *The University of Latvia, Continuing Education Centre for Librarians (CEC) has been offering several courses for the up-grading of teacher-librarians.*
- *Staffing in Latvian school libraries varies considerably. There are schools where the library worker is teacher-trained, but there are others with professional librarian qualifications. ... Starting in 2002, all school librarians will have to have higher education of a professional librarian or higher pedagogical education.*

Gudakovska (2001) describes the need for continuing education of professional librarians in Latvia. The paper describes the courses which are offered by the University of Latvia and the impact of its programme.

The Internet site provided by the Continuing Education Centre for Librarians of Latvia (2008) gives information about continuing education for (school) librarians in Latvia.

Brown, (2001) describes a series of seminars and meetings which were designed to build on the success of the Pilot Project 2000 carried out in collaboration with the NORDINFO (Nordic Council for Scientific Information) in Helsinki and the University of Latvia in Riga.

IASL (International Association of School Librarianship) (1997) reports that, in 1997, Dr Iveta Gudakovska from Latvia was awarded the Jean Lowrie Leadership Grant from the IASL, in recognition of her work in school librarianship in Latvia.

Specific References - Latvia

BRITISH COUNCIL (2008). <http://www.britishcouncil.org/eumd-information-background-latvia.htm>

Accessed on 10 August 2008.

BROWN, G. R. 2001. *Latvia School Library & Information Services Development, Project Two*. Riga [etc.] : University of Latvia, Continuing Education Centre [etc.].

GUDAKOZSKA, Iveta, 2001. *Focus on further education of librarians in Latvia*. Information Research, Vol. 7 Nr. 1, October 2001. <http://informationr.net/ir/7-1/paper119.html> Accessed on 10 February 2008.

IASL (International Association of School Librarianship, 2002. *Assembly of Associations Communiqué 2002. Country: Latvia*. The 2002 IASL Conference, Petaling Jaya, Malaysia
http://www.iasl-online.org/events/conf/reports/conference_report2002.html Accessed on 13 November 2008.

IASL (International Association of School Librarianship), 2007. International School Library Day. Latvia.
<http://www.iasl-online.org/events/isld/index.htm> Accessed on 5 November 2008 and <http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008 .

JANKAVA, Aija. 2006. *The Pedagogical Platforms in School Libraries Work*. Riga : University of Latvia :

LEE, S., BROWN, G., MEKIS, C. and SINGH, D. (2003) *Education for School Librarians: Trends and Issues from Selected Developing Countries*. Presented at the World Library and Informational Congress: 69th IFLA General Conference and Council, 1 – 9 August 2003, Berlin, Germany.

THE CONTINUING EDUCATION CENTRE FOR LIBRARIANS IN LATVIA. (2008)
http://www.lu.lv/szf/BDTC/BDTIC_anglu.htm Accessed on 13 November 2008.

UNESCO, 2007b. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf>
Accessed on 3 November 2008.

Name of country: Liechtenstein - LI

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – Liechtenstein

1	Population ranking:	51 from 54 (entire) countries in this survey
2	GNI ranking per capita	Unknown.
3	Expenditure on education	Unknown
4	Adult literacy	100%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	100 %
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	See para 3. High score. European score 3 in 2006 of the 36 European countries which took part in 2006.
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Did not returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

As stated above, the Principality of Liechtenstein is a very small country. Its entire population can be compared with the population of a relatively small city in other European countries.

Liechtenstein is a very wealthy country. According to the World Bank statistics (World Bank, 2008), using the gross national income per capita 2007, Atlas methodology, Liechtenstein ranked Nr. 1, Norway – Nr. 3 and Luxembourg – Nr. 4. Luxembourg is ranked as number 1 in the world for Gross national income per capita 2007, PPP.

It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research. However, Liechtenstein scored very well in the PISA testing in 2006 (rank 3 in the countries in this research) and in 2003. Reading scores were lower in 2006 than in 2003.

The IFLA/FAIFE World Report 2003 (IFLA/FAIFE 2003) makes the following statement:

'The Principality of Liechtenstein is a very small country, with only a few libraries and no library association. It was difficult to gather statistics on Internet penetration due to the small size of the country and its relationship with Switzerland.'

No information could be found, in English, about school libraries in Liechtenstein.

Specific References: Liechtenstein

IFLA/FAIFE World Report 2003. Country: Liechtenstein.

<http://www.ifla.org/faife/report/FAIFE-WorldReport2003.pdf> Accessed on 11 September 2008.

PORTAL OF THE PRINCIPALITY OF LIECHTENSTEIN, 2008. *ducation and Science*.

http://www.liechtenstein.li/en/liechtenstein_main_sites/portal_fuerstentum_liechtenstein/fl-buw-bildung_wissenschaft/fl-buw-allgemeineb.htm. Accessed on 14 November 2008.

Name of country: Lithuania/Lietuva/Litouwen - LT

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Lithuania.

1	Population ranking:	39 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 69 7.8% of population living on under 2 dollars (PPP) per day..
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 24 5% of GDP
4	Adult literacy	99.6%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	98%
7	School attendance of children from minority groups	Unclear
8	PISA score	European score 24 of the 36 European countries which took part in 2006. Scores below the norm.
9	PIRLS score	See para 4. European score 14 in 2006 of the 27 European countries which took part in 2006. Decrease in score and ranking from 2001 to 2006.
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	62%
12	ICT policy in schools	See European Schoolnet 2008
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Partially
16c	Number of school libraries	1,312
16d	National school library law	Unclear
16e	National school library association	No
16f	National survey of school libraries	Yes
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	41 – 60%

Lithuania is one of the relatively small countries in this study; it has a middle income economy.

From the information which appears in this report on Lithuania, it would appear that this country is reviewing its strategy for general education, in an attempt to improve the quality of education in this country. Its national expenditure on education can be compared with that of the other Baltic States. The report verifies that Lithuania has a rather unique situation with regard to the cultural identity of its citizens; it is making attempts to address this situation in a positive way during the educational process.

The introduction of ICT into the schools and the school libraries seems to be progressing slowly. Perhaps this is due to financial reasons, but this is unclear from the information which has been received.

Lithuania has a strong library tradition, dating from the 20th century. School libraries play an important role in this tradition. The Library Association is supporting school librarians (see Para 11). School librarians have been receiving support from an American partnership known as A.P.P.L.E. (explained in an E-mail from Prof. Blanche Woolls dated 20 August 2008), which holds yearly training sessions for school librarians in

Lithuania. The Lithuanian Library Association confirmed that these training sessions take place but did not give an opinion on their relevance to Lithuanian school librarianship in 2008.

Kryzanauskiene (2008), has clearly described the situation in school libraries in Lithuania in 2008, and has explained the complex legal situation for school librarians. She also confirms that a job description which describes the role which the school librarian plays within the school has been published.

Data was collected during a national survey in 2007/2007.

From 19 to 24th October 2008, Lithuania was the host to the SlamIT course 2008. The subject of the course was: *Learning - School libraries and regional education centres supporting learning in the community.*

Specific References: Lithuania

EURYDICE Database. (2008)

<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6> Accessed on 6 August 2008.

GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf> Accessed on 2 September 2008.

IASL (International Association of School Librarianship, 2002. *Assembly of Associations Communiqué 2002. Country: Lithuania.* The 2002 IASL Conference, Petaling Jaya, Malaysia
http://www.iasl-online.org/events/conf/reports/conference_report2002.html Accessed on 13 November 2008.

KRYZANAUSKIENE, IRENA, 2008. *Lithuanian school libraries today: Problems and perspectives.* Paper presented at the 2008 IASL Conference, Berkeley, California.

NATIONAL LIBRARY OF LITHUANIA, 2004. *Lithuanian Libraries in 2004.*

<http://www.lnb.lt/lnb/selectPage.do?docLocator=0EB2E0C91F8B11DA8271746164617373&inlanguage=en&pathId=109> Accessed on 12 August 2008

SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.

SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008.

UNESCO, 2007b. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report.* Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.

Name of country: Luxembourg/Luxemburg - LU

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Luxembourg

1	Population ranking:	47 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 4
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 41 3.4% of GDP (1999)
4	Adult literacy	100%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	100%. See Para 9c.
7	School attendance of children from minority groups	Unclear (COE, 2006)
8	PISA score	Score in 2006 almost identical to score in 2003. Scores below norm. Decrease in ranking in 2006. European score 22 of the 36 European countries which took part in 2006
9	PIRLS score	High score. European score 2 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	33% in 2006
12	ICT policy in schools	See European Schoolnet 2003
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unclear – 36 high school libraries reported -
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	No
16h	School libraries with internet access to users	81-100%

Luxembourg is a very small, wealthy country.

Statistics show that in 2001 (Eurostat, 2006), Luxembourg spent more of its GDP on education than in 1999 (CIA, 2008), thus it has increased its expenditure on education slightly. More recent statistics are unavailable. For such a small, wealthy country, the percentage of the percentage of gross domestic product (GDP) per capita spent on education is very low. Luxembourg ranked 41 when compared with the 54 (entire) countries taking part in this report. The World Bank figure dates from 1999; the World Bank has not provided new statistics (new statistics have not been submitted to the World Bank) at the time of writing (September 2008).

In Luxembourg, 10 years of education are compulsory. When compared with other wealth countries in the European Union, this statistic is low.

The Eurydice database, national summary sheets on education systems in Europe and ongoing reforms. country : Luxembourg, contained information that educational reforms were announced, which would take place between 2000 and 2006. Unfortunately, the national summary sheet for Luxembourg has not been updated since 2005, so it is not possible to read how these reforms have affected the educational system in Luxembourg.

Bayou [Bayou 2006] states that Luxembourg is not expected to achieve the NER Millennium Goals in 2015 (see para 9c).

It should be noted that Luxembourg's score in the PIRLS 2006 score was high – it ranked as number 2 in the European ranking. However, the average age of the children who participated in the testing was also far above the norm. This may indicate that these children who were tested have more reading experience than those who took part in a lot of other countries.

Luxembourg's scores in the PISA testing 2003 and 2006 were below the norm, particularly its scores in reading. Its scores decreased slightly from 2003 to 2006, and It ranked as number 22 in the 2006 European ranking. This is very low for a country with such obvious financial assets.

Very little is known about school libraries in Luxembourg, except for the fact that every secondary school has a school library (36 in total). These libraries are run by a trained school librarian. We know very little about the quality of these libraries. The figures regarding the number of PC's and the access to the Internet for users in the school library is conflicting.

Specific References: Luxembourg

ALA (American Library Association), 2008.

<http://www.ala.org/ala/aboutala/offices/iro/intlassocorgconf/libraryassociations.cfm#L> Accessed on 15 November 2008.

EURYDICE, 2005. *National summary sheets on education systems in Europe and ongoing reforms. Country : Luxembourg* Brussels : Directorate-General for Education and Culture.

EUROPEAN SCHOOLNET, 2003. Country report: Luxembourg

http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Luxembourg.

<http://www.europeanschoolnet.org/ww/en/pub/eun/network/luxembourg.htm> Accessed on 25 August 2008.

THE EUROPEAN LIBRARY, 2008.

<http://www.theeuropeanlibrary.org/portal/libraries/Libraries.php?lanuch=1&country=Luxembourg&language=en&page=History> Accessed on 11 August 2008.

UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008

WORLD BANK DDP Data query

http://ddp-ext.worldbank.org/ext.ddreports.ViewSharedReport?&CF=&REPORT_ID... Accessed on 11 September 2008.

Name of country: **The former Yugoslav Republic of Macedonia.**

Indicators which are relevant to this study.

- Member of the Council of Europe
- Candidate member of the European Union (EU)

Specific conclusions – the FYG of Macedonia

1	Population ranking:	42 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 97 21.7% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 40 3.5% of GDP
4	Adult literacy	96.1%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	92%. Macedonia is unlikely to achieve the NER for UPE Millennium goals by 2015.
7	School attendance of children from minority groups	See UNICEF, 2007, Amnesty, 2007 and COE, 2004.
8	PISA score	Did not take part in testing
9	PIRLS score	Score well below the norm. European score 27 in 2006 of the 27 European countries which took part in 2006 (lowest in Europe).
10	Statistics of use of ICT in schools	Unknown
11	ICT in the school library 2006	Unknown
12	ICT policy in schools	Unknown
13	Media literacy	Unknown
14	Libraries – general information	Did not return IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

Macedonia is one of the poorest countries in this survey. It is a candidate for membership of the European Union. For this reason, information is unavailable from many of the studies which have been used during this research.

The researcher has been unable to locate reliable, up-to-date information (in English) about schools in Macedonia. Although they are somewhat dated, the reports used in this survey mention the persistence of the inter-ethnic political struggles that are distorted by the profound mistrust and suspicion between the two major ethnic groups.

The adult literacy rate is reported as being 96%.

Macedonia took part in the PIRLS testing in 2006. Of the 27 countries in Europe which took part in the testing, Macedonia had the lowest score.

No information could be found (in English) regarding the introduction of ICT into the schools, or the amount of money which is being spent from the national budget for this purpose.

Three different Human Rights' organizations have expressed concern about the exclusion from education of children belonging to the Roma minority.

Myhrvold's detailed report (2005) attempts to describe and interpret the situation in education in Macedonia, in the aftermath of the 2001 armed conflict. Myhrvold attempts to compare the situation in three inter-ethnic urban centres and discusses disputes in education, concerned with inter-ethnic political struggles, which have arisen in Macedonia for more than two decades. These conflicts are especially relevant to secondary schools. According to Myhrvold, 'educational issues continue to constitute a political factor in Macedonia. ... Secondly, the education system is probably one of the most visible symbols of the country's ethnic segregation'.

In the opinion of the researcher of this dissertation, these problems need to be resolved before the efforts can be made to work on improvements on (multilingual) school libraries

Macedonia submitted information to the IFLA/FAIFE World Report in 2005. Its report was completed by the National and University Library "St. Kliment Ohridski" in Skopje. It states that there are few problems for the access of information in Macedonia, and that there are no mentions of intellectual freedom violations. Also, very little has changed with regard to access to the Internet in Macedonia via public and research libraries. It states that the Main languages in Macedonia are: Macedonian 68%, Albanian 25%, Turkish 3% and Serbo-Croatian 2%, other 2%.

The Library Association of Macedonia (LAM, has publishes an undated description of its activities. It mentions that is has members from all different kinds of libraries, including school libraries.

Very little is known about school libraries in this country, despite continuous efforts on the part of the researcher.

Specific References: the FYG of Macedonia

- IFLA/FAIFE World Report 2003. Country: Macedonia.
<http://www.ifla.org/faife/report/FAIFE-WorldReport2003.pdf> Accessed on 11 September 2008.
- IFLA/FAIFE World Report 2005. Country: Macedonia.
<http://www.ifla.org/faife/report/FAIFE-WorldReport2005.pdf> Accessed on 11 September 2008.
- LIBRARY ASSOCIATION OF MACEDONIA. www.pulmanweb.org/documents/twinning/FYROM.doc
 Accessed on 15 September 2008.
- MYRVOLD, RONNY 2005. *Former Yugoslav Republic of Macedonia : Education as a political Phenomenon*. A report for NORDEM (The Norwegian Centre for Human Rights). Oslo.
- RIJKSUNIVERSITEIT GRONINGEN 2007. IETC Macedonia, *Integrating E-learning across Teachers Curriculum in Macedonia*. <http://www.rug.nl/uocg-projecten-projectenaz-ietc/Macedonia>. Accessed on 15 September 2008.
- UNESCO Institute of Statistics 2006b.
http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=121&IF_Lan... Accessed on 15 September 2008.
- UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.
- UNICEF (United Nations Children's Fund) (2008) <http://www.unicef.org/infobycountry/TFYRMacedonia.html>
 Accessed on 4 May 2008
- WORLD BANK (2008b) DDP Country report : Macedonia.
http://ddp-ext.worldbank.org/ext/ddpreports/ViewCharedReport?&CF=&REPORT_ID.... 14 September 2008

Name of country: **Malta – MT**

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Malta

1	Population ranking:	48 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 53
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 21 5.1% of GDP
4	Adult literacy	92.8%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	No information available.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	21% in 2006
12	ICT policy in schools	See European Schoolnet, 2006
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 .
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes - partially
16c	Number of school libraries	See below
16d	National school library law	No
16e	National school library association	Yes
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	41-60%

Malta is a small middle-income country. Its population ranking is number 48 when compared to the 54 (entire) countries taking part in this report. Its entire population is less than that of some small European cities. It is a member of the EU.

Statistics show that in 2005 (CIA, 2008), Malta spent more of its GDP on education than in 2001 (Eurostat, 2005), thus it has increased its expenditure on education.

According to Bayou (2006) there is a high probability that Malta will have achieved the NER (Net Enrolment Rates) for universal primary education (UPE) Millennium goals by 2015. In this same report, the Growth Situation 2002 for Malta is described as "low".

According to IFLA/FAIFE (2007), there are an estimated 65 secondary school libraries, but no data on primary schools is available. Muscat (2004) mentions a figure of approximately 300 school libraries throughout Malta (including secondary school libraries).

Access to internet in school libraries is free of charge.

There is very little content available on the Internet in the local language, but Internet content in English is accessible. English is the second official language of Malta.

Statistics which were supplied with regard to the use of ICT and internet access in school libraries are conflicting (see Para 12).

Malta did not take part in all the surveys and testing mentioned above, probably because of its small size and population. However, the above information shows that within the constrictions of its size and national income, Malta takes education seriously.

Also, the national library organisations which are mentioned above are to be complemented for the way in which they have presented the importance of the role of the school library in education.

Ministry of Education, Culture, Youth and Sport, Government of Malta (2008) describes the mission of the Schools' Library Service in Malta, as follows:

'The provision of adequate libraries and access to information to schools at all levels, including appropriate premises, furniture, equipment, book stock and trained staff to facilitate literacy and to support the curriculum and offer leisure reading materials.'

It then gives a list of the main services which are offered. One important one is that teacher librarians should be offered courses in professional development.

Muscat (2004) describes libraries and librarianship in Malta. She states that there are around 400 libraries in Malta, *the bulk of which are school and public libraries ... There are two professional bodies, the Malta Library and Information Association and the Malta School Library Association. ... Local available professional library education takes the form of a part-time Diploma course offered by the University of Malta. ... or short in-service training. ...*

According to Muscat, Schools in Malta are divided into 3 categories: state schools and schools run by the (Catholic) Church which offer free education, and a small number of fee-charging private schools. All state secondary schools and many primary schools have a library which is usually run by a teacher-librarian and is open for part of the day. Most Church schools operate on the same principle, while private schools usually have a full-time librarian. All school libraries are supported by the Schools' Library Service. ... Schools are hindered by the fact that most of them do not have a full-time librarian. ... The budget allotted to school libraries varies quite widely and can range from a total dependence on fund-raising to the allocation of an adequate annual budget. ...

Mizzi (2008) discusses the on the role of public and school libraries in promoting literacy and developing reading skills amongst their users. He describes the continuing problem areas in school libraries in Malta as follows:

- *A good number of teacher-librarians in secondary schools are now qualified with a University Diploma.*
- *Schools' Library Service provides the necessary support services required. One of its main services is to advise the Education Division on the use of libraries to support the curriculum and as part of the on-going literacy campaign.*
- *Reader Services depend mostly on initiatives by individual teachers and teacher-librarians.*
- *No specific budget and formal collection development policies.*
- *Quality of resources available is an issue in most school libraries.*
- *Opening hours depend on schedules of teacher-librarians in secondary schools and ad hoc arrangements in primary schools.*
- *Access to internet is mostly through classrooms or computer rooms and not through the library."*

He also makes a very clear statement about the potential of school libraries:

- *Research has shown that library provision in primary and secondary schools has an impact on student learning.*
- *Library provision can contribute to academic achievement, particularly in reading in primary level students.*
- *The contribution to learning is dependent upon quantity and quality of collections and access to further resources and support from outside the school environment.*
- *School libraries have an important role in developing reading literacy amongst children.*

According to Mizzi (2008), some MiLIA recommendations for school libraries in Malta as follows:

- *Full-time librarians in colleges and secondary schools. Roving full-time librarians in primary schools.*
- *There is a need for more collaboration between the teaching and library professions. This should enhance the quality and frequency of librarian input in support of teaching and learning.*

Specific References: Malta

EUROPEAN SCHOOLNET, 2006. Country report: Malta

http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Malta.

<http://www.europeanschoolnet.org/ww/en/pub/eun/network/malta.htm> Accessed on 25 August 2008.

MINISTRY OF EDUCATION, CULTURE, YOUTH AND SPORT. 2008. *Schools Library Service.*

http://www.education.gov.mt/edu/edu_division/student_services_sls.htm Accessed on 28 August 2008.

MIZZI, Robert. *The role of libraries in promoting reading and literacy.*

<http://www.malia->

[malta.org/media/The%20role%20of%20libraries%20in%20promoting%20reading%20and%20literacy.pdf](http://www.malia-malta.org/media/The%20role%20of%20libraries%20in%20promoting%20reading%20and%20literacy.pdf)

Accessed on 25 September 2008.

MUSCAT, RUTH. 2004 *Libraries and librarianship in Malta.* Bibliothek 28, 2004 Nr. 2.

http://www.bibliothek-saur.de/2004_2/193-196.pdf Accessed on 26 September 2008.

TIMES OF MALTA.COM 2008. *School libraries need more resources.* <http://www.malia-malta.org/news-archive/91>

Accessed on 25 November 2008.

UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008

UNDP (United Nations Development Programme, 2008a. *Human Development report 2007/2008.*

http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf Accessed on 28 August 2008

Name of country: Moldova - MD

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions - Moldova

1	Population ranking:	36 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 152 48.5% of population below national poverty line.
3	Expenditure on education	European rank – 4. 7.6 % of GDP
4	Adult literacy	99.1%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	NER 85% and is not expected to reach the Millenium Goals by 2015.
7	School attendance of children from minority groups	See COE, 2006..
8	PISA score	Did not take part in testing
9	PIRLS score	See IEA, 2006. European score 23 of the 27 European countries which took part in 2006. Moldova achieved the norm in this study. Its score was better than in 2001.
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	1,433
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown. See Cara (2008)
16h	School libraries with internet access to users	Less than 20%

Moldova is one of the poorest countries in this survey. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

UNICEF (2008a) reports that poverty remains widespread in Moldova, especially in rural areas. But Parliament's adoption of a new economic growth and poverty-reduction programme demonstrates a serious commitment to improving conditions for women and children. Poor families have a difficult time paying for school and often do not see their children's education translating into better jobs. The government has adopted a UNICEF-endorsed Education for All strategy, which will increase access to quality primary and secondary schools. The re-opening of 100 preschools over the past two years has improved preschool enrolment rates.

UNICEF (2008b) reports that many children in Moldova attend boarding schools from an early age and spend a large part of their childhood and adolescence there. Many feel lost when they leave. As a result, many young people become highly vulnerable and exposed to a variety of risks, especially trafficking. ... To date, one-third of the country's population have migrated to other areas in search of employment.

Moldova has 99.1% adult literacy, however a figure of 96.5% was reported to the IFLA/FAIFE World Report 2007.

Until the end of the communist era, Moldavian education followed the standard Soviet model.

Moldova is not expected to attain the Millennium goals for NER (Net Enrolment Rate) by 2015 unless specific steps are taken to improve primary education.

Nevertheless, recent information from Moldova insinuates that this country is attempting to take steps to improve the quality of education in this country. The percentage of the GDP spent on education in 2006 (7.6%) is one of the highest in this survey – Rank 4. Also, for a country in its income level category, Moldova scored very well in the PIRLS testing 2006.

However, the English language newspaper *Tiraspol Times and Weekly Report* (2008) reports that corruption in schools in Moldova has reached record highs, Pupils pay money for a good grade, for after-school lessons and to take supposedly free exams. They also spend a great deal of money on gifts for teachers.

The Council of Europe (Moldova is a member) – ECRI (European Commission against Racism and Intolerance) has raised questions about the access to education to Roma children and children belonging to ethnic minorities.

Very little information (in the English language) about libraries and school libraries in Moldova is available, although Moldova does have a National Library. However, Moldova took part in the IFLA/FAIFE World Report 2007. According to this report, there are 1,433 school libraries. It may be assumed that (some of) these school libraries were established during the communist era. Nothing is known about their facilities or collection. It is not known whether or not these school libraries comply with conditions mentioned in the IFLA/UNESCO School Library Manifesto. Less than 20% of these school libraries have internet access for users.

It is possible that not a great deal has changed in these libraries since the communist era, through lack of funding. Also, nothing is known about the training or re-training of teacher librarians in Moldova, although a recent paper has been written about the training of teachers [Angela 2008].

Hopefully, thanks to the World Bank funding (World Bank, 2006), improvements are taking place in school libraries. The researcher has attempted to contact the World Bank project leader in Moldova, for more information, but as yet a reply has not been received.

Specific References: Moldova

CARA, A.. 2008. *Teacher Education Policies in the Republic of Moldova*. Paper presented at the University of Ljubljana, Slovenia in 2008. www.pef.uni-lj.si/tepe2008/papers/Cara.pdf Accessed on 15 November 2008.

TIRASPOL TIMES AND WEEKLY REPORT. 5 February 2008. <http://www.tiraspoltimes.com/node/1567> Accessed on 9 August 2008.

UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.

UNICEF (United Nations Children's Fund) 2008a. <http://www.unicef.org/infobycountry/moldova.html> Accessed on 4 May 2008.

UNICEF (United Nations Children's Fund) 2008b. http://www.unicef.org/ceecis/reallives_4459.html Accessed on 9 August 2008

WORLD BANK. 2006. *World Bank support rural education in Moldova*. <http://www.worldbank.org/md/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/MOLDOVAEXTN/0,contentMDK:20852388~menuPK:50003484~pagePK:2865066~piPK:2865079~theSitePK:302251,00.html> Accessed on 12 September 2008.

Name of country: Monaco - MC

Indicators which are relevant to this study.

Population May 2008: 32,563

- Member of the Council of Europe

Specific conclusions – Monaco

1	Population ranking:	52 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – Not available.
3	Expenditure on education	European rank – 32. 4,4% of GDP
4	Adult literacy	99%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	Not information available about UPE.
7	School attendance of children from minority groups	Unclear. See COE, 2006.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	3
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	81-100%

Monaco is a very small country. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

Very little information is available, in English, about the quality of education in Monaco but since it is a wealthy country, it may be assumed that the educational facilities are good. However, surprisingly, the percentage of GDP which Monaco spent in 2004 on education was lower than in many other prosperous countries – it scores as number 32 in the European ranking. There may be some explanation for this, due to the economic status and the size of the country.

Also, the Council of Europe (Monaco is a member) – ECRI (European Commission against Racism and Intolerance) has raised questions about: the access to education for children of cross-frontier workers in state schools.

A bit more is known about libraries and school libraries in Monaco. There are 3 schools with school libraries, which have 81-100% access to the Internet. The location of these school libraries has not been specified; the researcher does not know whether they are located in primary schools, secondary schools, or both.

Access to the internet in school libraries is free of charge.

Nothing is known about the training or retraining of teacher librarians in Monaco. It may be assumed that librarians who work in Monaco are trained in France.

References: Monaco

AngloInfo MONACO. <http://monaco.angloinfo.com/countries/france/diplomas2.asp> Accessed on 22 July 2009.

IFLA (International Federation of Library Associations, 2005. *World Guide to Library, Archive and Information Science Associations*. Munich : K. C. Saur

Municipality of MONACO, Official Government Portal, 2008a. *Report on the Development of GDP/GNI*
[http://www.gouv.mc/devwww/wwwnew.nsf/1909\\$/41a52e2b210285eac12572d000464213qb?OpenDocument&6Gb](http://www.gouv.mc/devwww/wwwnew.nsf/1909$/41a52e2b210285eac12572d000464213qb?OpenDocument&6Gb) Accessed on 10 August 2008.

Municipality of MONACO, Official Government Portal, 2008b
<http://www.gouv.mc/devwww/wwwnew.nsf/d0c95819dd9f2e3dc1256f9c003b549c/9887a03aadafc822c1256fce0330053!OpenDocument&Highlight=0,Education> Accessed on 10 August 2008.

Name of country: Montenegro - ME

Indicators which are relevant to this study.

- Member of the Council of Europe
- Potential member of the European Union (EU)

Specific conclusions – Montenegro

1	Population ranking:	46 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank 93. 30% of population below national poverty line. – estimated in 1999 for Serbia and Montenegro.
3	Expenditure on education	Unknown
4	Adult literacy	2006 – Male: 99%, Female 96.3%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	Not information available about UPE for Montenegro as a separate country. Old figures for Serbia and Montenegro could be found but were considered to be irrelevant. Statistics are relatively low. .
7	School attendance of children from minority groups	Very specific criticism - see below.
8	PISA score	Score 35 of the 36 European .countries which took part in the testing. Scores well below the norm, especially in reading.
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	174 primary school libraries, 47 high school libraries.
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Less than 20%

Montenegro became independent in 2006. Some information (prior to 2006) which is also relevant to school libraries in Montenegro is contained in the section of this research about Serbia.

Montenegro is one of the poorer countries in this survey. It is a potential member of the European Union. At the time that this research took place, it was not a member of the EU and for this reason, information is unavailable from many of the studies which have been used during this research.

Very little information (in the English language) about libraries and school libraries in Montenegro is available. However, the following facts have been confirmed:

- There are 174 primary school libraries and 47 high school libraries in Montenegro, but nothing is known about the conditions or facilities in these libraries.
- It is not known whether or not Montenegro will attain the Millennium goals for NER (Net Enrolment Rate) by 2015 (UNESCO, 2008a and 2008b).

The Council of Europe, Amnesty International and UNICEF have all raised questions about the access to education to Roma children and children belonging to ethnic minorities.

References: Montenegro

ENCYCLOPEDIA BRITANNICA, (2008b)

<http://www.britannica.com/EBchecked/topic/390727/Montenegro/254896/Education>

IFLA (International Federation of Library Associations, 2005. *World Guide to Library, Archive and Information Science Associations*. Munich : K. C. Saur

UNDP (United Nations Development Programme), 2008.

<http://vulnerability.undp.sk/DOCUMENTS/montenegro.pdf> Accessed on 10 August 2008.

UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East*

Europe. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf
Accessed on 19 August 2008.

UNESCO Institute for Statistics, 2008b.

http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=121&IF_Language=eng&BR_Country=4990&BR_Region=40530 Accessed on 10 August 2008.

WORLD BANK. 2005c. *Education Reform Project (Montenegro)*. .

<http://web.worldbank.org/external/projects/main?pagePK=64312881&piPK=64302848&theSitePK=40941&Projectis=PO84597> Accessed on 12 September 2008.

Name of country: Netherlands/Nederland - NL

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – The Netherlands

1	Population ranking:	12 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 16
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 20 5.3% of GDP
4	Adult literacy	99%
5	Compulsory education	13 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2008
8	PISA score	Scores in 2003 and 2006 are almost identical and are above the norm. increase in scores in 2006 – European score 2 of the 36 European countries which took part in 2006
9	PIRLS score	Score in 2006 is lower than in 2001. European rank 7 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	27% in 2006
12	ICT policy in schools	See European Schoolnet, 2008
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Did not return IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	See Chapter 21 of this dissertation for detailed information.
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	Secondary school libraries only.
16g	Training of teacher librarians	See Chapter 21 of this dissertation for detailed information
16h	School libraries with internet access to users	No information provided.

The population ranking of the Netherlands is number 12 when compared to the 54 (entire) countries taking part in this report .

The Netherlands ranks as number 16 (world rank) in order of GNP per capita July 2008 (in US dollars), Atlas method. Its European ranking is number 10. It is one of the 10 most prosperous countries in Europe.

Statistics show that in 2005 (CIA, 2008), the Netherlands spent more of its GDP on education than in 2001 (Eurostat, 2005), thus it has increased its expenditure on education. However, when a comparison was made of the percentage of GDP which was spent on education by all the countries in this survey, the Netherlands ranked as number 20. This means that it was spending the same percentage of its GDP on education as middle income countries; in fact, it ranked lower than Hungary, Portugal and Poland.

Specific research was carried out about the role of school libraries and information centres in the Netherlands (see Chapter 21 of this dissertation..

The Netherlands has been included in this Appendix of individual country reports so that information could be presented in the same format which was used for other countries which have been part of this research. In this way, a fair comparison can be made between what is happening in the Netherlands and in the other countries in this survey.

Training of teacher librarians. Information has been received from Meles (2008) and Ray (Editor, 1978). This contrasting background information puts the training of school librarians in the Netherlands in an historical perspective.

Meles (2008) reports the following: *The Dutch school library association LWSVO is very much focusing on professional development of school and teacher librarians. This means they have reserved a large budget for regional and national activities. ...*

A new training program for (assistant) school librarians will start in September 2008. Also regional training programs are being organize. All activities are subsidized by the LWSVO, which means participants (members of the LWSVO) will receive a substantial discount on the fees."

Ray (Editor, 1978) provided information about school librarianship in the Netherlands. This publication is dated however it does contain interesting background information for this study.

(page 99)

Three existing Dutch schools of librarianship have a fulltime course for youth librarians, which is open to qualified assistant librarians, having followed a two-year basic training course.

(page 100)

Training of school librarians

There are two schools for librarianship that have a fulltime course for school librarians, which is open to students who have successfully completed the two-year basic course for assistant librarian. This extra course takes one more year and the subjects include: management of school libraries; building and furnishing; financial policy; aim and structure of the school library (service centre); internal and external communication; knowledge of school media materials, the building up of a media collection; pedagogy; staff policy; psychology; cataloguing of audio-visual materials; gymnastics.

IASL (2006) provides a detailed explanation of the work of the National Association of School Librarians (LWSVO) in the Netherlands

The Dutch Association of School Librarians in Secondary Schools (LWSVO) was founded specifically for school librarians who work in secondary schools. But has recently become a division of the National Library Association

It should be noted that the Netherlands failed to submit information to the IFLA/FAIFE World Report 2007.

Specific References: Netherlands

BRITISH COUNCIL (2008). <http://www.britishcouncil.org/eumd-information-background-netherlands.htm>
Accessed on 10 August 2008.

EUROPEAN SCHOOLNET, 2008. Country report: Netherlands
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: The Netherlands .
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/netherlands.htm> Accessed on 25 August 2008.

EURYDICE Database. (2008a)
<http://eacea.ec.europa.eu/portal/page/portal/Eurydice/FigurePage?pubid=052EN&figCode=052E6>
Accessed on 6 August 2008.

IASL (International Association of School Librarianship, 2006. *Assembly of Associations Communique 2008. Country: The Netherlands*. The 2008 IASL Conference, Lisbon, Portugal
<http://www.iasl-online.org/members/communique/assofass2006c.htm#dbv> Accessed on 21 Aug. 2008.

MELES (Meles Meles Schoolmediatheekdienst - (School Library Consultants) (2008) .
E-mail dated 28 May 2008.

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) .
Munich [etc.] : K. G. Sauer

Name of country: Norway – NO

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – Norway

1	Population ranking:	32 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 3
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 5 7.2% of GDP
4	Adult literacy	100%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	Decrease in scores in 2006 – European score 19 of the 36 European countries which took part in 2006
9	PIRLS score	Decrease in scores in 2006. European score 25 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	54% in 2006
12	ICT policy in schools	See European Schoolnet, 2008
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	3,196
16d	National school library law	Yes
16e	National school library association	Yes
16f	National survey of school libraries	Yes – 2006.
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	81-100%

Norway is a relatively small country. It is one of the wealthiest countries in this survey and ranks as number 3 (world rank) in order of GNI per capita July 2008 (in US dollars), Atlas method. Its European ranking is number 2.

Norway spends a high percentage of its GNP on education. Statistics show that in 2005 (CIA, 2009), Norway spent more of its GDP on education than in 2001 (Eurostat, 2005), thus it has increased its expenditure on education.

Norway has invested a great deal of money on the introduction of ICT into the schools. The number of computers per 100 pupils in schools in Norway is 24.2%. (Only one other country in this survey scores higher (Denmark – 27.3%). 84% of all schools have computers in the classroom.

Nevertheless, Norway's scores in the PIRLS 2006 testing was less than its score in the 2001 test. Its European ranking in 2006 was 25, out of the 27 European countries which took part in this testing. Also, Norway's score in the PISA testing in 2006 was low – a rank of 19 out of the 36 European countries which took part in this test.

This is remarkable for a country which spends such a lot of money on education. Various paragraphs in the above report on Norway express concern for these low scores. Para 6 and Para 10 describe measures which have been taken by the Norwegian authorities to improve this situation.

The European Commission (2008) describes how Norway has attempted to answer the questions which were posed by the *Schools for the 21st Century* consultation. Questions were answered by the Czech Republic, Estonia, Norway and Finland.

Up until 2009, school librarians complained about lack of an adequate budget. Pupils also complained about the quality of the collection. It would appear from the 2006 questionnaire and report on school libraries in Norway, that there was a lack of understanding of the effect on educational achievement which can be noticed if pupils and teachers have access to a professionally run, well-funded school library and information centre., not only in upper secondary school, but from the beginning of primary school up until the end of upper-secondary school. A more equitable division of expenditure should be made between the costs of ICT technical equipment and the staffing, collection and facilities of the school library and information centre would seem to be advisable.

IFLA (2002) provided (now somewhat dated) visions for school libraries in Norway. In this communiqué, Sundt, Adviser to the Norwegian Board of Education, recommends that schools should be encouraged to work together with their school libraries to organise teaching programmes. Incentives might include rewards and project funding to those schools most effective in this co-ordination work. "School libraries have a central place in education and serve as centres of cultural activity and sources of information and materials. They should stimulate pupils' own efforts and promote good working habits. School libraries should promote the pleasure of reading, stimulate reading books as a leisure activity and as a supplement to class work, and be the place where pupils can actively learn how to seek information from a variety of sources.

In 2006, Johan Barstad, Ragnar Audunson, Ellen Hjortsæter, Barbro Østlie (Barstad, 2006) carried out a survey of school libraries. It confirmed many of the conclusions which have been reached by school librarians / teacher librarians and School Library Associations by other countries which have taken part in this survey.

IASL (2007) contains the following information about challenges and concerns regarding school librarianship in Norway:

There is a national campaign on school libraries (@your library). Also, the results have just been received from a national enquiry into the state of our school libraries from levels 1 to 13. Their condition varies greatly. The average hours of professional services are only approx. 5 hours per week on levels 1-10 and approx. 29 hours per week on levels 11-13. The Minister of Education has announce) that a school library developing program will start 01.01.2008. This is very good news for our work and it will be our main concern this period.

The Norwegian Association of School Libraries is described as follows:

The association was founded in 1978. We are a national association with members from all over the country. At the present time we have 502 members and 236 subscribers. Our members are working as school librarians, or they are teachers with a special interest in the school library. The subscribers are mostly schools.

Six of our twenty counties have their own regional association who have meetings and arrange courses that are open for non-members. We have a national board which contains 5 members. Every second year we have a general meeting where new board members are elected, and the program for the following period of time is presented.

We are connected to the Nordic association, and one of our board members is representing Norway in the Nordic board. ...

Main issues for the Norwegian association of school librarians

- *to improve the working conditions for teachers who are responsible for the school library*
- *to strengthen the school library as an educational tool and an area for presentation of*

literature

- to work for the local councils to establish school libraries, so that every pupil can use a library close to their home
- to work for better education for teachers who work as school librarians
- to create a professional forum for school library issues arranging meetings, courses and seminars, by giving out a magazine and presenting a website
- to collect and publish relevant literature on school library issues.

Rafste (2006) described the education of school librarians in Norway. In 2008, Rafste returned answers to the following questions about the training of school librarians in Norway, as follows:

- School librarians and information specialists are still being trained in Norway. About 45 part-time students graduate each year.
- Most students already have a teaching accreditation, but it is still not possible to integrate library science into the teacher training education.
- Are these part-time or full-time students? PART-TIME
- Students trained as school librarians work in both primary and secondary schools.
- The average age of these students is 38 years. 99.5% are women.
- School librarians with a teaching accreditation receive the same salary as teachers. Those without a teaching accreditation receive a lower salary and less holidays.

Information supplied by: Elisabeth Tallaksen Rafste, Førsteamanuensis, dr. polit., Universitetet i Agder, Fakultet for humaniora og pedagogikk, Institutt for pedagogikk.

Baadshaug (2007a and 2007b) describes the role of the school librarian in upper secondary schools in Norway, and in particular due to the demands of the new curriculum which was introduced in Norway in 2006. It refers to a new course for librarians and teachers in secondary schools (age 16-19) that the National Centre for Library Services started August 2004. She also mentions policy developments due to a new national curriculum which was implemented in August 2006. The driving force behind the school reforms is the fact that Norwegian students have not scored very high on various international tests in reading skills, and this worries the politicians. As a result, strong emphasis was put on 5 so-called basic skills; reading, writing, oral communication, arithmetic and the ability to use digital tools by the previous government. The present government kept these skills, but put four of them, reading, writing, oral communication in one paragraph, and added three new skills; competence in English, social competence and learning strategies. Finally, the use of digital skills was changed to digital competence – a somewhat broader concept. In both cases, the strategies employed by school librarians for empowering their libraries has been to point to the library as an important arena for developing these basic skills. She also makes statements about school libraries and the education of school librarians in Norway: The access to libraries in schools is required by law, but beyond that there are virtually no formal requirements to the services provided. School libraries therefore vary a lot across the country. On the secondary level, many schools have good libraries staffed with full time professional librarians, while most elementary schools lack proper library facilities. The secondary schools usually have professionally trained librarians while the elementary schools have teachers with supplementary education in school librarianship.

Lundvall (2009) refers to good news for Norwegian school libraries. In 2009 the Department of Education started a program for the development of Norwegian school libraries. The project period will last four years. It will give financial support for one year to participating primary schools. Compulsory courses in school librarianship will be given to the participants by the University of Agder. An inquiry has shown that school libraries in Norway are in poor condition, with few opening hours and staff lacking library education. The main goal is to develop the school library so that it contributes to reading skills, levels out social and digital divisions, and strengthens the individual student's personal growth. The school library as a learning arena for all subjects and for disseminating the knowledge of literature, digital learning resources and information literacy, are also major goals of the program.

The Karmøy Kommune, Kopervik and Stangelands Ungdomskule, Kopervik in Norway took part in three European Socrates Projects, SLAM (2000), GrandSLAM (2002) and SLAMIT (2006), which have been concerned with innovations in school librarianship. These three projects have brought wide experience and developed expertise with regard to the use of the school library and information centre (multimediacentre) as

an effective educational tool in the information age. In the opinion of this researcher, the Karmøy Kommune, Kopervik and Stangelands Ungdomskule, Kopervik are to be complimented for the vital role it has played in these projects.

The news received by E-mail on 19 November 2008 (Para 11j) announces very important changes in the situation in school libraries in Norway. Although in the past the Norwegian authorities showed a definite willingness to provide a good educational system for their children, research indicated that there was a lack of vision. The recent developments mentioned in Para 11j show that there has been a change in attitude and that Norway will now pay more attention to its school libraries.

Reference to reports from some other countries in this study (e.g. Denmark and the Netherlands) shows that there needs to be a “balance” between expenditure on ICT facilities and their actual use within the schools. Also, perhaps more attention should be given to the quality of training for both teaching staff and technical staff in ICT skills (both technical and also interdisciplinary information literacy skills) and high quality training for the school librarian and information specialist.

The discussion Group for school librarians in the north, managed by Mr. Niels Damgaard, provides a NING for news and discussions about the school libraries in the Nordic countries - in Norwegian, Danish, Swedish - and 5 groups in English <http://skolebibliotek.ning.com/> (Accessed on 26 March 2010).

Specific References: Norway

- BAADSHAUG, M.B. 2007a. *The school library – learning centres of tomorrow*.
<http://iflasblog.wordpress.com/category/norway/> Accessed on 17 November 2008.
- BAADSHAUG, M.B. 2007b. *The school library – learning centres of tomorrow, (Versie 2)*. www.ensil.eu
Accessed on 25 May 2008
- BARSTAD, J. et al. 2006. English Summary of the following report: *Skulebibliotek i Norge : Kartlegging av skulebibliotek i grunnskule og vidaregåande opplæring* (Study of school libraries in Norway, carried out from September 5th to October 16th, 2006).
http://www.utdanningsdirektoratet.no/upload/Rapporter/Skulebibliotekrapport_fullstendig.pdf Accessed on 8 August 2008.
- EUROPEAN COMMISSION, Education and Training, 2008. *Consultation for Schools for the 21st Century, Country:Norway*. Accessed on 17 November 2008. http://ec.europa.eu/education/school21/results_en.html
Accessed on 17 November 2008.
- EUROPEAN SCHOOLNET, 2007. Country report: Norway
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.
- GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf> Accessed on 2 September 2008.
- IFLA (International Federation of Library Associations), 2002. *The School Library : Today and Tomorrow / La Bibliothèque Scolaire : Aujourd'hui et demain / La Biblioteca Escolar : Presente y futuro*. The Hague : IFLA.
<http://www.scribd.com/doc/3721740/SchoolLibrary-today-tomorrow> Accessed on 8 November, 2008.
- KUNNSKAPSDEPARTEMENTET, 2007a. *Fair and Inclusive education*.
http://www.regjeringen.no/nb/dep/kd/aktuelt/taler_artikler/Kunnskapsministerens-taler-og-artikler/Djupedal/2007/Fair-and-Inclusive-education.html?id=472840 Accessed on 17 November 2008.
- KUNNSKAPSDEPARTEMENTET, 2007b. *Free and open learning and research in Norway*.
http://www.regjeringen.no/nb/dep/kd/dep/politisk_ledelse/-Lisbet-Rugtvedt/taler_artikler/2007/Free-and-open-learning-and-research-in-N.html?id=475303 Accessed on 17 November 2008.
- LUNDVALL, R. (2008). E-mail received on 19 November 2008 from Ms. Randi Lundvall, President of the Norwegian Library Association: School Library Section .
- LUNDVALL, R. (2009) *Norwegians Develop School Libraries*. Newsletter for IFLA section no. 11. School Libraries and Resource Centers. Issue 49., December 2009
<http://www.ifla.org/files/school-libraries-resource-centers/newsletters/december-2009.pdf>
Accessed on 22 March 2010.
- RAFSTE, E. T. 2006. *Education for School Librarianship in Norway*. <http://iflasblog.wordpress.com/category/norway/>
Accessed on 17 November 2008.
- RAFSTE, E. (2008). E-mail received from Elisabeth T. Rafste, Agder University, Kristiansand, Norway

dated 29 May 2008.

SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.

SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008.

eLEARNINGEUROPE.INFO DIRECTORY. *Eg-PROGRAMMA: Selection of Education and Training 2010, Land: Norway.* http://www.elearningeuropa.info/directory/index.php?page=doc&doc_id=6247&doclng=6
Accessed on 17 November 2008.

Name of country: Poland/Polska/Polen - PL

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Poland

1	Population ranking:	9 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 70 12.8% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 18 5.5% of GDP
4	Adult literacy	99.8%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	99.6%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	European score 12 of the 36 European countries which took part in 2006
9	PIRLS score	European score 19 in 2006 of the 27 European countries which took part in 2006.
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	39%
12	ICT policy in schools	See European Schoolnet 2008.
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Partially
16c	Number of school libraries	15,200
16d	National school library law	Unknown
16e	National school library association	Several different school library associations
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	41-60%

Poland is a middle-income nation with a relatively large population.

Statistics show that in 2001 (Eurostat, 2005), (5.1%), Poland spent less of its GDP on education than in 2005 (CIA, 2008), (5.5%), thus it has increased its expenditure on education.

Poland took part in the PISA testing 2003 and 2006: its scores are slightly below the norm, except in 2006 in reading. The scores which were obtained in 2006 were slightly higher than 2003. The results which were obtained in 2006 are slightly higher than those of other middle income EU members in Europe.

Poland took part in the PIRLS testing in 2006 for the first time. Its score was above the norm and its ranking in Europe was 19 – which is on the low side when compared to other European countries in a similar category.

This research reveals that Poland takes education seriously. Since its independence, Poland has faced problems concerned with the level of education. Kolodziejska (1996) gives a very clear description of the low level of education in Poland at the time of writing and the urgent need for education reform.

When collecting information for this report, there have been many language problems (lack of English language documentation and returns to questions which were asked in English. It is therefore interesting to note that pupils are now required to pass an examination in a second language at the end of lower-secondary school. This fact should make the exchange of information easier, between Poland and other countries.

Education reforms have been prepared and should take place in Poland from 2009-2015. These reforms aim to increase the quality of education throughout the entire school system. They also aim to increase of access to upper-secondary education.

It would seem that ICT is gradually being introduced into Polish schools.

Teachers are required to be computer literate but it is unclear what this actually means and how they acquire the necessary skills.

It would seem that media-education and the teaching of information literacy skills to both teachers and pupils are matters which still need to be carefully addressed.

One Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups.

Reliable, recent English language information about libraries in Poland was difficult to find.

There are a large number of school libraries in Poland (15,200). At the time of writing (October 2008) it is not known whether or not Poland has a school library law, however the National Library of Poland has confirmed that the average primary and secondary school in Poland has a school library run by a trained librarian (university level). Since there has been no national survey, it is difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto.

Many school librarians in Poland have impressed the international school library community with their enthusiasm, especially during International School Library Day (2007) and International School Library Month (2008). These librarians are regarded with affection by other members of the European school library community, however, as mentioned before, there is definitely a language (and communication) problem.

IFLA/FAIFE (2007) reports that 41-60% of (the large number of) school libraries in Poland have Internet access for users and that both local content and local languages are well represented on the Internet.

The education system in Poland allows for a great deal of autonomy from school to school. The school library groups are also autonomous. With this in mind, a group of school librarians have set up their own Polish ENSIL Platform (ENSIL, 2008).

Polish school librarians have maintained the English language website since 2006. It gives details of the activities of the Polish school librarians. These people deserve to be complimented for their wonderful enthusiasm for school librarianship. The website contains a statement: "*We take care about **school libraries of Polish schools in Czech Republic** (Karvina, Mosty u Jablunkova).*" This website also has a link to an online magazine for school librarians, which contains valuable information about current activities (all in the Polish language).

Specific References: Poland

CISEK, Sabina, 2006. *Code of Ethics for Librarians and Information Professionals. Issued by the Polish Library Association.* The Hague : IFLA.

ENSIL Foundation, 2008. www.ensil.eu Accessed on 24 May 2008

EUROPEAN SCHOOLNET, 2008. Country report: Poland
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Poland
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/poland.htm> Accessed on 25 August 2008

ISLD (International School Library Day), 2008. Poland.
<http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008

ISLD (International School Library Day), 2007. Poland .
<http://www.iasl-online.org/events/isld/isld2006/isld2006c.html#poland> Accessed on 15 November 2006.

KOŁODZIEJSKA, Jadwiga, 1996. *Libraries in the system of education - education as quality.* The Hague : IFLA
<http://www.ifa.org/IV/ifa62/62-kolj.htm> Accessed on 5 October 2008.

WEBSITE OF POLISH SCHOOL LIBRARIES!
<http://www.schoollibraries.republika.pl/> and <http://www.actual2005.republika.pl>.
Accessed on 2 November 2007.

Name of country: Portugal - PT

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Portugal

1	Population ranking:	15 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 51
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 17 5.5% of GDP
4	Adult literacy	93.8%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	98%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	See para 4. Low score. European score 26 in 2006 of the 27 European countries which took part in 2006.
9	PIRLS score	Did not take part in testing.
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	61% in 2006
12	ICT policy in schools	See European Schoolnet, 2008
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Did not return the IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Partially
16c	Number of school libraries	2,063 (See RBE, 2007)
16d	National school library law	Yes. See also National guidelines (Nova, 2008)
16e	National school library association	Network (RBE)
16f	National survey of school libraries	Unclear
16g	Training of teacher librarians	Unclear
16h	School libraries with internet access to users	No information provided.

This report shows that Portugal's progress towards a strong educational system has been inhibited by various (sometimes political) problems and difficulties. Economic problems have also been a factor in the quality of education (see Para 10a). The government of Portugal has faced up to these difficulties and progress is being made. However, statistics show that in 2001 (Eurostat, 2005), Portugal spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education.

In particular, Portugal scored lower in the field of adult literacy than many of the other countries in this survey. This problem is being addressed, and as the report states, various programs to improve reading literacy have been implemented.

Also, the number of years of compulsory education are relatively low, when compared to other countries in this survey.

Eurydice (2008), Country – Portugal, clearly states that “*the main strategic challenge behind priorities in educational policy consist in improving the level of qualifications and competencies of the Portuguese population*”. It also refers to the importance of the information society and the need to build the knowledge, know-how and competencies to cope with this society.

Investment has been made in ICT within the schools, (Korte & Hüsing, 2006), however a clear description of how return on this investment in terms of academic achievement will be realised is not provided. A clear description of how teachers and pupils will cope with Media Literacy issues is not given (European Commission, 2007).

The Arion Report on Portuguese School Libraries, 2005 contains the conclusions of a study tour which took place in Portugal, attended by representatives of 17 EU countries. It concludes that school librarianship in the EU needs:

- Funding for the improvement of school libraries
- Funding for appointment of school librarians
- Training for both school librarians and assistants
- Technical support.

The report also confirms the aspirations of individual EU member states *“to become the most competitive and knowledge based economy in the world, capable of sustaining economic growth with more and better jobs and social cohesion... Libraries of all types have a central role to play in providing access to information and in developing the habits and competencies necessary to achieve this objective,”*

These themes were discussed during the study visit. (See referenced document).

Portugal did not return information to the FAIFE/IFLA World Report 2007.

A great deal of information has been provided to this report from teachers and librarians in Portugal. This information relates to both specific reading projects, in order to improve literacy throughout the country, and also to the use of the school library as a place where pupils and teachers can receive help and training, in order to take part in the information society in a positive way.

Various criticisms and suggestions are made concerning ways in which school libraries can be improved. Improvements in the staffing, collections, budgets and facilities of the school libraries will result in an increase in academic achievement (Bastos, 2006, Novo, 2008).

On the European and International front, the school librarians of Portugal are greatly admired for their enthusiasm for their work. This is reflected in the quality of their work, their willingness to retrain themselves, their active participation in international conferences and training programmes, and in their enthusiasm for International School Library Day (ISLD, 2007) . These hard working people are held in affection by other school librarians throughout Europe (ENSIL, 2008).

Portugal took part in the SLAMIT project (2006), which was an extension of the SLAM (2000) and GrandSlam (2002) projects. All three projects have brought wide experience and developed expertise with regard to the use of the school library and information centre (multimediacentre) as an effective educational tool in the information age.

After this research was concluded, a National School Library Law was passed, requiring all schools in compulsory education to have a school library, run by a qualified school librarian, as follows. On 19 June 2009, the RBE (National school library association of Portugal) announced that the Minister of Education of Portugal has institutionalised the job of teacher librarian in all school libraries in Portugal. During the 2006/2007 school year, the Portuguese School Libraries (RBE) network published a job description (list of competencies) for the work of the qualified school librarian. Under the new law, a formal job description will be written. <http://www.rbe.min-edu.pt/np4/522.html> .

On 24 July 2009, Prof. Gloria Bastos, Open University, Lisbon supplied the following information:

‘This law will be applied to all schools: in mandatory education (“Basic” education, 3 cycles, ages 6-14 and re-primary schools , ages 4-5) and post-mandatory education (Secondary education, ages 15-17) . At this moment most schools are organised into groups of schools (several schools = 1 principal/1 administration). Sometimes, in small towns, these groups are formed by schools that have students of all ages (primary and secondary schools). With the new legislation about teacher

librarians, 1 teacher librarian can coordinate several school libraries, for different level of students, according to the number of students in the group of schools (until 900 students = 1 teacher librarian)'.

After this research was finalised, information was also received that the School Library Association (United Kingdom) has published a document which enables individual schools to evaluate their own school library. This document has also been revised and translated into Portuguese, for use in Portuguese school libraries.

Also, after this research was finalised, information was received about the National Reading Plan, which is of great importance in Portugal. More information about this project can be found at: http://www.reading-worldwide.de/zeigen_e.html?seite=6682 Accessed on 10 February 2009.

The Theka Project (2004) is based on co-operation between school libraries, public libraries, the Portuguese Library Association (BAD) and the Gulbenkan Foundation. This project will ran from 2004 – 2008, at national level. The project has three goals:

- *Training teachers to develop schools libraries as resource centres to improve reading, information literacy, pupils success and learning, as well as to provide support for lifelong learning and gateways to knowledge and culture.*
- *Developing school library projects working closely with pupils, staff, and community, through managing and supporting the school curriculum and extra-curricular activities in order to promote a whole-school ethos.*
- *Creating and maintaining self-training resources using a wide range of different supports including web pages, database, reference documents, information on research and innovation.*

Specific References: Protugal

ARION REPORT, 2005 : Libraries and Learning : School Libraries/Multimedia Resource Centres.
http://www.giase.min-edu.pt/reb/arion/final_report/index.htm Accessed on 31 May 2007.

BASTOS, GLÓRIA, 2006. : *Challenging school libraries in Portugal: Compromise, consideration, communication and collaboration.* Proceedings of the 35th IASL Congress (CD-ROM). Lisbon, 3-7 July 2006

ENSIL Foundation, 2008. www.ensil.eu Accessed on 24 May 2008.

EUROPEAN SCHOOLNET, 2008. Country: Portugal
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/portugal.htm> . Accessed on 25 August 2008.

GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf>
Accessed on 2 September 2008

IASL (International Association of School Librarianship, 2002. *Assembly of Associations Communique 2002. Country: Portugal.* The 2002 IASL Conference, Petaling Jaya, Malaysia
http://www.iasl-online.org/events/conf/reports/conference_report2002.html Accessed on 13 November 2008. I

ISLD (International School Library Day), 2007. Portugal.
<http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008
<http://www.iasl-nline.org/events/isld/isld2006/isld2006c.html#portugal>

MINISTRY OF EDUCATION, PORTUGAL. 2007. *Education and Training in Portugal*
http://www.gepe.min-edu.pt/np4/?newsId=7&fileName=education_and_training.pdf
Accessed on 13 October 2008

NOVO, Ana, 2008. *Are Portuguese school libraries providing access to information for everyone? – The case of 20 selected ones.* <http://edoc.hu-berlin.de/conferences/bobcats2008/> Accessed on 2 February 2008.

RBE (Portuguese School Libraries Network). (2007), *Tendencies and challenges of training for information professionals to school libraries.* Report of the National Congress of Librarians, Archivists and Documentalists, held in St. Miguel, Azores in March 2007

RBE (Portuguese School Libraries Network), <http://www.rbe.min-edu.pt/> Accessed on 13 October 2008.

SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.

SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008.

THEKA PROJECT, 2004. *The Calouste Gulbenkian Project for Teacher Education to Develop School Libraries.*
<http://www.theka.org/cursos/proyecto.html> Accessed on 23 September 2006.

.

Name of country: Romania – RO

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Romania

1	Population ranking:	11 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 83 21.5% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 39 3.5% of GDP
4	Adult literacy	97.3%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	100%. Unlikely to achieve the NER for universal primary education.
7	School attendance of children from minority groups	See Amnesty, 2007, COE, 2008 and UNICEF, 2007.
8	PISA score	European score 33 of the 36 European countries which took part in 2006
9	PIRLS score	See para 4. Score under the norm. European score 26 in 2006 of the 27 European countries which took part in 2006. Score had decreased since 2001. Also the average age of the children who took part was 10.9 years, which is very high.
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Did not returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Partially
16c	Number of school libraries	Unclear 9,389 (see Șerbănuță , 2008) or 7 (see National Library of Romania, 2007).
16d	National school library law	Yes
16e	National school library association	Yes
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Yes
16h	School libraries with internet access to users	Unknown

According to the World Bank statistics, Romania is one of the poorest of the 27 members of the European Union. Romania scores 26 (the poorest being Bulgaria, 27).

Statistics show that in 2005⁴, Romania spent more of its GDP on education than in 2001⁴⁹, thus it has increased its expenditure on education. This indicates that is trying to improve its education system.

⁴ CIA The World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/fields/2206.html> Accessed on 1 October 2008.

⁴⁹ EUROSTAT. European Commission , 2005. *UOE and National Accounts, 2005. Key Data on Education in Europe, 2005.* http://eacea.ec.europa.eu/ressources/eurydice/pdf_images/052ENXX010D01x0101f.pdf Accessed on 1 October 2008.

Although a considerable amount of interesting information has been found about education in Romania, it is dated. The percentage of GDP which Romania spends on education is the lowest in the EU countries, and lower than the expenditure of countries in a similar income category. It scores as number 39 in the European ranking. It is possible that the percentage of GDP which Romania spends on education may have decreased slightly between 2004 and 2005. Joint education projects between the Romanian Government and the World Bank seem to be having some impact on the improvement of conditions in schools.

Information about education in the Eurydice database is dated. Nevertheless it speaks of education reforms, including reforms in the training of teachers.

Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups (UNICEF, 2007).

Romania's score in the PISA testing 2006, especially in reading, was well below the norm. Romania ranked 33 in the European ranking,

Also, Romania's score in the PIRLS 2006 test was lower than its score in the 2001 test. Its rank in Europe decreased from 15 in 2001 to 26 in 2006, although this may be partially due to the fact that more European countries took part in the 2006 testing.

Șerbănuță (2005) describes a joint project between the Romanian government and the World Bank. The objectives of this project were to improve the quality of education in Romania.

In November 2005, the World Bank approved a Knowledge Economy Project, which will accelerate the participation of knowledge disadvantaged communities within the knowledge-based society and economy in Romania.

No specific information about the introduction of ICT into schools in Romania has been found.

Some information has been found about libraries in Romania, which refers to the devastation of libraries during two World Wars, and the use of libraries as a tool for communist propaganda from 1945 – 1989. Romania is appealing to international organisations and librarians worldwide to help in the re-establishment of a quality library system in Romania. Little information has been found about school libraries, with the exception of one high school which is very fortunate to have an enthusiastic teacher librarian.

Romania is appealing to the international community for help in re-establishing its library network.

International Education Partners (2006) described their activities with a World Bank missions to Romania, identifying, preparing and appraising the first Education Reform Project, including a comprehensive Book Sector Study of Romania.

IREX (2008) reports that the Bill and Melinda Gates Foundation has selected IREX to plan for a program to provide public access computers with Internet access in Romania's public libraries, in order to improve access to information technology in Romania.

Tomulețiu E-A and Pop Lupu, A. (2007) have attempted to present a picture of the present conditions in Romanian rural libraries.

Repanovici and Landoy (2007) provides some insight into libraries in Romania, but does not mention school libraries.

Angelescu (2005) explains that after the demise of the communist regime in December 1989, Romanian libraries have been striving to improve the situation in libraries in that country but that libraries are still lagging behind. She asks for more commitments for funding for improvements in the library scene in Romania.

Șerbănuță (2008) has provided information about the number of school libraries in Romania in 2008, a figure of 9,389 libraries. This paper describes the present situation in Romania libraries, including information about the training of librarians and access to professional associations for librarians. It also refers to the history of libraries in Romania and particularly stresses the importance of school libraries in this country.

In a 2007 report (in the English language) the National Library of Romania explains the mission and vision of the National Library Romania. A section of this report refers to the national reserve of publications and the number of registered documents. This section talks about 7 school libraries with a total of 3,313 publications.

International School Library Day (2007) was celebrated in Romania (IASL, 2007).

Kiss (2007) describes work being carried out in the school library at the Mikes Kelemen High School in Transylvania.

In an E-mail received on 3 October 2008, Mr. Laszio Kiss, school librarian, Mikes Kelemen High School in Transylvania, Romania answered the following questions:

- Does every school (in compulsory education) in Romania have a school library? yes.
- Is there a law stating that every school should have a library? yes, we have a law: Legea Bibliotecilor nr 334 din 31 mai 2002
- Are school librarians still being trained in Romania, if so, at which institution. I answered in the attachment (ENSIL Questionnaire Nr. 2)
- Are these school librarians employed as pedagogical workers (teachers) or at a lower salary scale? we are not together with the teachers and school masters. Although we have almost the same salary but we are called Auxiliary Didactic Personel, and for example the secretary too is included in the same category.

Specific References: Romania

ANGHELESCU, Hermina G. B. 2005. *Public Libraries in Romania*.

<http://www.informaworld.com/smpp/content~content=a738193218~db=all~jumtype> =...

Accessed on 25 September 2008

GOVERNMENT OF ROMANIA AND WORLD BANK, 2005. A New Spark in Romania's Rural Schools.

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/EXTECAREGTOPRURDEV/0,,contentMDK:20872302~menuPK:573598~pagePK:34004173~piPK:34003707~theSitePK:573582,00.html>

Accessed on 10 September 2008.

INTERNATIONAL EDUCATION PARTNERS. 2006. www.iepartners.co.uk

Accessed on 19 September 2008.

IREX (International Research & Exchanges Board), 2008

http://www.irex.org/programs/global_libraries/index.asp Accessed on 25 September 2008.

ISLD (International School Library Day), 2007. Romania

<http://www.iasl-online.org/events/isld/2007isld/index.htm> Accessed on 2 August 2008.

KISS, LASZIO, 2007 *Resources & Activities Help Promote Information Literacy in the Mikes Kelemen High School Library, Transylvania, Romania*. <http://ifiliasblog.wordpress.com/category/romania/> Accessed on 24 September 2008.

NATIONAL LIBRARY OF ROMANIA, 2007. *Annual Report 2007*.

http://www.nlib.ro/cenl/docs/annual_reports/Romania_accual_report_2007.pdf Accessed on 25 September 2008.

REPANOVICI, Angela and LANDOY, Ane. 2007. *Information Literacy Applied on Electronic Resources – Practices*

from Brasov, Romania and Bergen, Norway. http://www.ifla.org/IV/ifla73/papers/158-Repanovici_Landoy-en.pdf
Accessed on 25 September 2008.

ȘERBĂNUTĂ, C. 2008. *The future of the Romanian library*.
www.ideals.uiuc.edu/bitstream/2142/8862/2/CILabNote_9_romania.pdf Accessed on 18 November 2008.

TOMULETIU, E-A, 2007. *Functioning of Romanian rural libraries – between tradition and Contemporaneity*.
Târgu-Mureș, Romania : "Dimitrie Cantemir" University.

UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.

WORLD BANK, 2005a. The Knowledge Economy Project, Romania.
<http://www.worldbank.org.ro/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=275154&menuPK=287326&Projecti...> Accessed on 13 August 2008

Name of country: Russia / Russian Federation - RU

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – the Russian Federation

1	Population ranking:	1 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 78 30.9% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 38 3.8% of GDP.
4	Adult literacy	99.4%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	87% . See Para 11f. Not expected to meet the Millennium development goals for universal primary education (UPE) by 2015.
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Scores below the norm. European score 28 of the 36 European countries which took part in 2006
9	PIRLS score	High score. European score ¹ in 2006 of the 27 European countries which took part in 2006. However UNESCO has commented on the equity of methods used to obtain this score.
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	66,000
16d	National school library law	Unknown
16e	National school library association	Yes
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unclear
16h	School libraries with internet access to users	Less than 20%

Russia a very large country. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

In 2005, Russia spent 3.8% of its gross domestic product (GDP) per capita on education. It ranked as number 38 in Europe.

Russia took part in the PISA testing 2003 and 2006: In both years, its scores are below the norm. The scores which were obtained in 2006 were similar to those in 2003, however its world ranking in 2006 is lower. The results which were obtained in 2006 are similar to those of other countries in Europe in a similar income bracket. .

Russia ranked as number 1 in the PIRLS 2006 test (worldwide and also European score); its rank in 2001 was number 11. It should be noted, however, that the age of the average child who took part in the testing in Russia was 10.8 years. This is much higher than the average age of children in some other countries. It

is concluded that children with an average age of 10.8 years have more reading experience than younger children.

Little recent, reliable information in the English language could be located about the current education system in Russia.

No information or statistics could be found about the introduction of ICT into Russian schools, or about Media-literacy in Russian schools.

Reliable, recent English language information about libraries in general, in Russia could not be found. The researcher wrote to the National Libraries and also the Russian Library Association, without success. However, it has recently become possible to access the Russian State Library in Moscow, via the European Library located in The Hague: www.theeuropeanlibrary.org

Ishizuka (2003) describes the presence of Mrs. Laura Bush at a reading promotion festival in Moscow in 2003.

Ray (Editor, 1978) provides interesting background information about school libraries in Russia.

International School Library Day 2007 was celebrated (ISLD, 2007) in Russia.

According to the IFLA/FAIFE World Report 2007, there are 66,000 school libraries in Russia. This is the largest library network in Russia. Less than 20% of these libraries have access to Internet for users. Internet access in school libraries is free of charge. An average amount of local content on the internet is available in local languages.

According to the Russian Library Association (IFLA/FAIFE, 2007), Russia has a literacy rate of 99.8%. This figure varies slightly from the figures provided by UNDP (2008b) and UNICEF 2004).

Other information about school libraries in Russia comes primarily from one source : the Russian Association of School Libraries. This Association did not return the ENSIL questionnaires, despite a number of requests to do so.

It is therefore difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto, even though these have been translated into Russian.

The newsletter for School Libraries and Resource centres, Issue no. 41, December 2005 reports that Tatiana Zhukova presented a folder about the Russian School Library Association (2008) to Dr. Anne Clyde (representing the IASL and the School Libraries and Resource Centres of IFLA). Tatiana Zhukova is also the Editor-in-Chief of the Russian magazine "School Library".

Gromova (2007) is the Editor in Chief of the Library in the School newsletter, published by the First of September Publishing House in Moscow, Russia, January, 2007. Ms. Gromova is well known throughout the international school library community for her dedication to school library work in Russia. She analyses a two-year experience of running professional newspaper-based correspondence refresher courses for educators and children's librarians. Developed by the First of September Publishing House, this system offers a selection of narrowly specialised courses, to be scaled up with time, and an original organisation of the learning process. The Biblioteka v Shkole course offering is used as a case study to describe the content and structural philosophy of this kind of training, and some conclusions drawn from the first two years of operation.

Kotkina (2006) describes remote learning possibilities for school librarians, so that they can improve their skills. The writer speaks about the benefits of this training.

Three Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups.

Specific References: Russian Federation

GROMOVA, Olga K., 2007 : *From Information to an Education System in Russia*.

<http://iflasblog.wordpress.com/category/russia/> Accessed on 10 October 2008.

ISHIZUKA, KATHY, 2008. : *Laura Bush promotes reading in Russia*. School Library Journal, 22 October

2003.¹ <http://www.schoollibraryjournal.com/index.asp?layout=articlePrint&articleID=CA329990>

Accessed on 4 August 2008.

¹ ISLD (International School Library Day), 2007. *Russia*

<http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008

KOTKINA, Irina, 2006. *Remote learning as a forum of extended training of a school librarian (a practical approach)*.. A paper presented at the 13th International Conference "Crimea 2006"- Libraries and information

resources in the modern world of science, culture, education and business. Yalta, Crimea, Ukraine – June 2006.

RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section

of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer

RUSSIAN SCHOOL LIBRARY ASSOCIATION, 2008.

<http://www.rusla.ru/eng/?PHPSESSID=e513f9017ec528e1d559420a971ed70a#/eng/partners/> Accessed on 10 October 2008.

WIKIPEDIA, 2008. *Education in Russia*. http://en.wikipedia.org/wiki/Education_in_Russia

Accessed on 10 October 2008...

¹⁴¹ LIBRARY Service to Children : An International Survey / edited for the Section of Children's Libraries by Colin

Ray. (1978). Munich [etc.] : K. G. Sauer

Name of country: San Marino - SM

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – San Marino

1	Population ranking:	53 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 13
3	Expenditure on education	Unknown
4	Adult literacy	96%
5	Compulsory education	Unknown
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006 and also below.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	5
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	81-100%

San Marino is the third smallest state in Europe (after the Holy See and Monaco). Its foreign policy and also social and political trends are aligned with Italy.

Its population ranking is number 53 when compared to the 54 (entire) countries taking part in this report . It is fact the smallest country in this survey but has a ranking of 53 because reliable population statistics for Kosovo were unavailable at the time of writing (September 2008).

It is not a member of the European Union, and for this reason, information is unavailable from the studies which have been used during this research.

Very little information is available, in English, about the quality of the education in San Marino. Since it is a relatively wealthy country, it may be assumed that the educational facilities are good. Nevertheless, the Council of Europe, – ECRI (European Commission against Racism and Intolerance) (COE, 2006) of which San Marino is a member has raised questions about the access to education of some children in this country. These comments are concerned with children with non-Italian mother tongue children and with teaching of Italian as a second language, at all levels of education. It encourages the authorities of San Marino to consider providing non-Italian mother tongue children with education in their mother tongue. The ECRI also encourages the authorities of San Marino to ensure that pupils are given an instruction on religion which complies with the scientific neutrality essential in any educational approach.

Little is known about the introduction of ICT into the schools.

According to IFLA/FAIFE, 2007, there are 5 school libraries in San Marino, but we know nothing about their staffing, collection or facilities (except for the internet access mentioned above). They have 81-100%

access to the Internet. The location of these school libraries has not been specified; the researcher does not know whether they are located in primary schools, secondary schools, or both.

There is very little internet coverage of local content, but very good coverage of the local languages.

Access to the internet is free of charge for all libraries.

Nothing is known about the training or retraining of teacher librarians in San Marino. It may be assumed that librarians who work in San Marino are trained in Italy.

Specific References: San Marino

CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-worl-factbook/index.html>

COE (Council of Europe), ECRI. 2006
http://www.coe.int/t/e/human_rights/ecri/1-ecri/2-country-by-country_approach/San_Marino/ Accessed on 18 August 2008.

IFLA/FAIFE World Report, 2007. http://www.ifla.org/faife/report/ifla-faife_world_report_2007-reports.htm San Marino
Accessed on 9 June 2008.

Internet World Stats. <http://www.internetworldstats.com/europa2.htm> Accessed 1 August 2008.

UNESCO Institute for Statistics, 2008.
http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=121&IF_Language=eng&BR_Country=6740 Accessed on 10 August 2008.

WORLD BANK. 2008a. *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008.
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008.

Name of country: Serbia - RS

Indicators which are relevant to this study.

- Member of the Council of Europe
- Potential member of the European Union (EU)

Note: With effect from 3 June 2006 the Republic of Serbia is continuing the membership of the Council of Europe previously exercised by the Union of States of Serbia and Montenegro. On 17 February 2008, the Kosovo Assembly declared its independence from Serbia.

Specific conclusions – Serbia

1	Population ranking:	18 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 95 30% of population below national poverty line. (Figure provided by the CIA Factbook 2007, for Serbia and Montenegro).
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	Expenditure for Serbia as a separate country is unknown, however in 200 the % GDP for Serbia and Montenegro was 3.29%
4	Adult literacy	96.4%
5	Compulsory education	8 years
6	Primary school and secondary school enrolment	Unknown. See specific information below about the possible calculation of these figures.
7	School attendance of children from minority groups	See Amnetsy (2007), COE, (2008) and UNICEF, 2007
8	PISA score	Low scores – under the norm. European score 33 of the 36 European countries which took part in 2006
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned the IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	1,700
16d	National school library law	Yes
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	21-40%

Because of the political problems which are mentioned in Para 10, it has been very difficult to find accurate information about education, schools and school libraries in Serbia. However, very recently (September 2007) valuable information has been received from the National Library of Serbia and from the National Library Association of Serbia (Para. 12).

The CIA World Factbook, 2007 Edition provides detailed information about the political situation in Serbia and the consequences for education in this country. It provides specific information about refugees and internally displaced persons, from different ethnic groups. The wars of the 1990's have created more than half a million refugees and internally displaced persons from different ethnic and language groups (see below). It is not known whether or not the children in these groups are officially registered in the population statistics and whether or not they attend school. Also, UNICEF is considerably concerned about the lot of Roma children in education in Serbia, and has taken special measure to ensure good education for these

children. Since Roma is not a literary language, it is not known whether or not these children have access to textbooks and children's literature in their mother tongue.

There is very little recent information about the structure of education in Serbia, except for information provided by the British Council . However UNICEF (2008) provides the following information about education in Serbia:

- *Investment in children's health and education has declined by half over the past decade.*
- *The wars of the 1990's have created more than half a million refugees and internally displaced persons.*
- *Actual school enrolment rates are significantly lower than official figures indicate. Two-thirds of primary schools have students in different grades taught in the same class.*
- *Roma children and students with special needs face challenges in access to education. Girls frequently drop out of school to marry early.*
- *Thousands of peacekeepers remain stationed in Kosovo, where the UN is closely involved in government of the region. Because half of Kosovo's population is under age 25, effort on behalf of children are vital to its future. ...*
- *UNICEF and its partners trained 5,000 teachers in active learning techniques. The Roma Education Initiative has enables more than 2,000 Roma children to enrol in primary school*

Serbia did take part in the 2003 and 2006 PISA testing. In both cases, its score was considerably below the norm and its score in 2006 was lower than its score in 2003. Its rank in Europe in 2006 was 31. This score was similar to countries in a similar income group (e.g. Bulgaria).

Even though Serbia is a potential member of the EU and a member of the Council of Europe, it did not take part in or submit information to most of the surveys which have been used in this research.

Serbia returned information to the IFLA/FAIFE World Report, 2007 which states that :

- 21-40% of school libraries offer access to the Internet for their users.
- Internet access at schools is covered by the Ministry of Education.
- The Ministry of Education is trying to get all schools connected to the Internet.

It also sent information relating to Kosovo (Independence of Kosovo 17 February 2008).

UNESCO ((1987) presents case studies on the role of school libraries and their transformation into school media centres in elementary and secondary schools in Serbia, Croatia, and Hungary. It is noted that the school media centre is not conceived of as a simple mechanism for storing books and audiovisual aids, but as an active centre for self-directed learning and innovative student-teacher relations. The studies were submitted in response to an invitation from the UNESCO-supported Programme of Cooperation in Research and Development for Educational Innovation in South and South-East Europe. The Serbian study focuses on the transformation of school libraries in four primary schools.

The research has found that there are 1,700 school libraries in Serbia and that all schools in compulsory education must have a school library. These school libraries are required by law. School librarians are (now) required to pass an examination of certification if they wish to work in a school library (university level). School librarians receive the same salary and conditions as teachers. School librarians are still being trained in Serbia at two universities. 21-40% of the school libraries mentioned above have Internet access for users

The following information, supplied by two different sources:

The National Library of Serbia information submitted an answer (dated 22 April 2005) to the 2005 ENSIL Questionnaire.

- There is a school library in the average primary school in Serbia
- This library is not run by a trained school librarian.
- There is a school library in the average secondary school in Serbia

- This library is not run by a trained school librarian.
- Serbia does not have a National School Library Association
- Serbia has a National Library Association.
- Librarians are still being trained at university level at Belgrade University.

The National Library of Serbia provided extra information via an E-mail received on 30 September 2008 :

“School libraries in the Republic of Serbia are part of two systems: the school system and the library system. This means that their work is regulated by the laws on education and by the laws on librarianship.

Legislation on education defines the working conditions in school libraries (including space, equipment, staff number and structure and, of course, financial sources for buying books and other library material). On the other hand, legislation on librarianship defines the way in which the professional work in school libraries is organised and carried out.

School libraries which possess old and rare library material, act also under the legislation on protection of cultural heritage.

According to the legislation mentioned above, every school in the Republic of Serbia is obliged to have a school library. Today, in the Central register of libraries in the Republic of Serbia, we have registered nearly 1.700 school libraries, and we believe that most of existing school libraries are included in our evidence.

IFLA/UNESCO school library Guidelines and Manifesto were translated into Serbian in 2005, and they are used to a great extent in our school libraries. But in Serbia, we still implement old national standards for particular types of libraries as well. Our librarians still use them sometimes when IFLA/UNESCO advice is considered to be too extensive.

In Serbia, school librarians are very often employed as teachers as well, but we have examples of school libraries which are so big and well organised that they have up to 4 full working time librarians.

*Concerning the education of school librarians, we have obligatory university education for librarians in general. It is being held at the Faculty of Philology in Belgrade, (Prof. Vranes lectures there) and also at the Faculty of Pedagogy in Sombor, where the Department for school libraries is formed. I have included here the contact address of Mr. Zeljko Vuckovic, Prof. at the Department.
(z.vuckovic@yahoo.com)*

Until 2005 school librarians in Serbia did not have the obligation to pass the librarians state exam (being held at the National library of Serbia), if they have already passed the education state exam. Thus most of school librarians carried out their work without the necessary professional knowledge. According to current regulations, school librarians must pass the above mentioned librarian state exam to obtain the licence to work in a library. That exam is presently carried out by the Ministry of Education.”

Prof. Alexandra Vranes, President of the Association of Serbian Librarians, Department of Librarianship and Informatics, Faculty of Philology, University of Belgrade via an E-mail received on 29 September 2008

- Every school (in compulsory education) in Serbia have a school library
- A lot but not all conform to the quality standards which are explained in the FLA/UNESCO School Library Manifesto and the IFLA/UNESCO School Library Guidelines. Problems arise because of the financial situation.
- There are laws pertaining to education, libraries, standards for school libraries and guidelines for school libraries
- School librarians are still being trained in Serbia at the Department for Library and Information Science, Faculty of Philology, Belgrade University. Undergraduate, master and doctoral level courses are available.
- School librarians are employed at the same salary scale as teachers.

This important information about school libraries in Serbia shows a very positive attitude towards school librarianship.

On Monday, 3 October 2006, a school library at the Experimental Elementary School "Vladislav Ribnikar", Belgrade took part in International School Library Day (IASL, 2006).

Specific References – Serbia

- ¹ IASL (International Association of School Librarianship), 2006.
<http://www.iasl-online.org/events/isld/isld2006/isld2006d.html#serbia> Accessed on 2 August 2008
- UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf
Accessed on 19 August 2008.
- UNESCO (United Nations Education, Scientific and Cultural Organisation), 1987. *From School Libraries to School Media Centres: Experiences, the Present Situation and Possible Improvement*. Editor: Celler, Z.
http://eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED351023&ERICExtSearch_SearchType_0=no&accno=ED351023 Accessed on 18 August 2008

Name of country: Slovakia/Slovensko/Slowakije/Slovak Republic - SK

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Slovakia

1	Population ranking:	28 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 64
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 37 3.9% of GDP
4	Adult literacy	99.6%
5	Compulsory education	10 years
6	Primary school and secondary school enrolment	96%
7	School attendance of children from minority groups	See Amnesty 2007, COE 2004, and UNICEF 2007.
8	PISA score	Slight decrease in scores in 2006 – European score 21 of the 36 European countries which took part in 2006
9	PIRLS score	European score 15 of the 27 European countries which took part in 2006. The average age of pupils who took part in the test is 10.3 years, which is quite high.
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	4% in 2006
12	ICT policy in schools	Did not submit information to the European Schoolnet
13	Media literacy	Did not take part in this study
14	Libraries – general information	Returned IFLA/FAIFE World Report
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes - partially
16c	Number of school libraries	5,483 (IFLA/FAIFE 2007) or 6,000 – See below,
16d	National school library law	Yes, guidelines – see below
16e	National school library association	No
16f	National survey of school libraries	Yes, annually
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	Less than 20%.

The Slovak Republic is a middle-income nation with a stable market economy.

Statistics show that in 2001 Eurostat, 2005), Slovakia spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education.

Slovakia took part in the PISA testing 2003 and 2006: its scores are below the norm. The scores which were obtained in 2006 were lower than the 2001 scores. The results which were obtained in 2006 are slightly lower than those of other middle income EU members in Europe.

It should be noted that Slovakia's score in the PIRLS 2006 score was less than its score in the 2001 test. Also, its ranking in Europe was lower, however this is partly due to the fact that more European countries took part in the PIRLS testing 2006.

New educational reforms are now taking place in Slovakia; new concepts of education are being introduced (see Para 11a).

When collecting information for this report, there have been language problems. It is therefore interesting to note that more emphasis is being placed (in the new educational concepts) on the teaching of foreign languages.

It would seem that ICT is gradually being introduced into Slovakian schools, but it would appear that funding is sometimes a problem. The statistics regarding ICT usage in the schools are lower than in many other countries in this survey.

It would seem that media-education and the teaching of information literacy skills to both teachers and pupils are matters which still need to be carefully addressed. Slovakia did not take part in the study for the European Commission *Study on the Current Trends and Approaches to Media Literacy in Europe*.

Reliable, recent English language information about libraries in general, in Slovakia was very difficult to find. However, Slovakia returned information to the IFLA/FAIFE World Report 2007 and provided the following information:

- Internet access in school libraries is provided free of charge.
- The state has made funding available to improve Internet access in the last two years.

There is a school library law (guidelines) in Slovakia, which states that a school library may be established in a school, but it does not seem to be compulsory (National Library of Slovakia, 2008)

The number of school libraries in Slovakia is high (5,483) and is confirmed by different sources. However, little is known about the quality of these libraries. Less than 20% have access to the Internet for users.

There has been an annual national survey, which has been sent to school principals. The questions in this survey are unavailable in English. It is therefore difficult to ascertain whether or not school libraries comply with the guidelines set out in the IFLA/UNESCO School Library Manifesto.

Dr. Dusan Katuscak (2006), General Director of the Slovak National Library, explains the importance of the WSIS in stimulating the development of national library networks, which in turn helps in the development of the worldwide information society. In relatively small countries like Slovakia, this stimulation has been most important. In his paper, Katuscak talks about a total of 6,000 school libraries. The referenced document explains the goals of the Slovak library network, which were established at the Slovak Library Association Conference in June 2006. No specific reference is made to school libraries.

The National Library of Slovakia, (2008) forwarded the following information via an E-mail dated 7 August 2008.

“Concerning legislation, the Slovak libraries, including school libraries, are governed by the Act no. 183/2000 (the Library Act available from http://www.culture.gov.sk/uploads/z6/ec/z6ecEcq5lg6aFTIE-SaL-g/act_libraries.pdf), in particular by Article 10 (School Libraries). The Act also refers to the School Act no. 29/1984 (as amended later) in which it is said under Article 45 (Parts of Schools), point (1) that “A part of school may be a school library (reference back to Article 10 of the Library Act) and a school facility according to a special rule if it is determined so by the establishing entity or if establishing entities decide so.”

The researcher thanks Dr. Dusan Katuscak for his assistance.

The Slovak Pedagogical Library returned the ENSIL Questionnaire 2007 on 13 October 2008. The questionnaire was physically filled in by Mr. Martin Katuscak, digital library officer at the Slovak National Library, based on a teleconference with Ms. Rozália Cenigová, Slovak Pedagogical Library. The answers are as follows:

- There is a job description at national level, for the work carried out by a school librarian or teaching librarian. It is recognized at governmental level. The Ministerial Guidelines were prepared on 20th April 2006 and entered into force on 1st May 2006. A copy of this job description in English is not available.
- Serbia does not have a National School Library Association.
- A national survey of the work carried out by school libraries is carried out annually in Serbia, in the Slovak language. It is completed by school principals at primary and secondary schools in schools which have a school library. The survey questions are available via Internet (in Slovak).
- The majority of school librarians in Serbia do not speak and read English. The preferred language for a questionnaire at national level would be Slovak, and also Hungarian, Ukrainian etc. for minority groups. At international level it would be English.

The Pedagogical Library also confirmed that they did not complete the original ENSIL survey in 2004 because at that time they were not aware of ENSIL and had no authority to complete the survey.

School librarians are still being trained in Serbia, as a part of continuous education. School librarians receive training provided by the Methodological-Pedagogical Centre in Bratislava - Allocated Worksite in Banská Bystrica -the Centre provides courses especially for school librarians. Every year there are from **10 to 20** people who graduate as school librarians. Apart from this, there are **general** librarianship courses at the following institutions:

University level:

Faculty of Arts (aka Philosophical Faculty), Comenius University, Bratislava
Faculty of Arts (aka Philosophical Faculty), University of Prešov, Prešov
Faculty of Sciences, University of Žilina, Žilina

Secondary level:

School of Library and Information Studies in Bratislava

The researcher wishes to express her gratitude to the Slovak Pedagogical Library and the Slovak National Librari for obtaining this information.

An enthusiastic school librarian took part in International School Library Day in 2007 and sent a report to the IASL in English (IASL, 2007).

Three different Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups (Amnesty 2007, COE 2008, and UNICEF 2007). The Amnesty International report 2006 (<http://web-amnesty.org/report2006/svk-summary-eng>) and 2007 (<http://thereport.amnesty.org/eng/Regions/Europe-and-Central-Asia/Slovak-Republic>) have indicated that Romani pupils suffer lack of access to education and are often taught in segregated schools or are over represented in special schools for children with mental disabilities.

Specific References: Slovakia.

IASL (International Association of School Librarianship), 2007. International School Library Day. <http://www.iasl-online.org/events/isld/index.htm> Accessed on 5 November 2008 and <http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008 .. Country: Slovakia . <http://www.iasl-online.org/events/isld/isld2006/isld2006c.html#slovakia> Accessed on 15 November 2006.

¹ KATUSCAK, DUSAN. 2006. *WSIS gave a boost to library development in Slovakia*. Presented at the World Library and Information Congress, 72nd IFLA General Conference and Council, 2006, Seoul, Korea. <http://www.ifla.org/IV/ifla72/papers/113-Katuscak-en.pdf> Accessed on 6 October 2008.

KATUSCAK, DUSAN. 2004. *The Slovak National Library : Annual Report to the Conference of European National Libraries*. http://www.nlib.ee/cenl/docs/annual_reports/slovakia96-97.pdf Accessed on 6 October 2008.

UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*. 2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf Accessed on 19 August 2008.

Name of country: Slovenia/Slovenija/ Slovenië - SI

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Slovenia

1	Population ranking:	43 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 46
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 12 6.0% of GDP
4	Adult literacy	99.7%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	96%. Slovenia has achieved universal primary education (UPE) or soon will. UNESCO, 2008 and Bayou, 2006.
7	School attendance of children from minority groups	See Amnesty 2007, COE 2004, and UNICEF 2007.
8	PISA score	European score 8 of the 36 European countries which took part in 2006
9	PIRLS score	European score 18 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	89% in 2006
12	ICT policy in schools	See European Schoolnet, 2008
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 but no specific information about school libraries
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Partially
16c	Number of school libraries	IFLA/FAIFE 2007 reports 648 school libraries. The Statistical Office of the Republic of Slovenia 2006 reports 896 school libraries.
16d	National school library law	Yes
16e	National school library association	No. Part of the Union of Associations of Slovene Librarians
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Yes
16h	School libraries with internet access to users	81-100%

Slovenia is a small country with a population of approximately 2 million people. It is a middle-income nation. At the end of 2006, 27% of the population was aged between 0 – 25 years⁴⁵⁸, which could be said to be on the low side, when compared with other countries in this survey.

Statistics show that in 2005 Slovenia spent 6% of its GDP on education: figures for 2001 are unavailable. When compared with all the countries in this survey and ranked on the percentage of GDP spent on education, Slovenia was number 12. This means that it was spending the same percentage of its GDP on education as wealthier countries and scored higher than Switzerland, France, Austria, the UK and the Netherlands. This high expenditure indicates that Slovenia is trying to improve its education system and is willing to spend money on high quality education.

⁴⁵⁸ EURYDICE, 2008. *National summary sheets on education systems in Europe and ongoing reforms. Country : Slovenia* Brussels : Directorate-General for Education and Culture.

A lot of information has been supplied (above) about schools and education in Slovenia, (see Para 10). The information shown below indicates that the present trend in Slovenia is to place importance on educational excellence

Slovenia took part in the PIRLS testing in 2001 and 2006. In 2006 it scored higher than in 2001 and was one of the few countries in this survey to achieve this. Also the average age of the children who were tested (9.9 years). In 2006, its European ranking was number 18.

Slovenia could be said to be somewhat cautious with regard to the introduction of ICT into the schools. However, the statistics show that use of ICT in the school libraries is very promising.

Although Slovenia has reported some interesting facts about instruction in Media Literacy, in the opinion of the researcher this needs to be investigated further. Information has been requested from appropriate sources but has as yet not been forthcoming (1 October 2008).

The IFLA/FAIFE World Report, 2007 provides the following information:

- Internet penetration is relatively high in Slovenia, with 55.5% of the population being internet users.
- Internet access is provided free of charge in all libraries (including school libraries).

During informal interviews, mention was made of the Slovenian School Library Association however the researcher has not been able to contact this association. Also, information was posted on the IASL Website by the Slovenian School Library Association, after the celebration of International School Library Day 2007 (IASL, 2007).

In Slovenia, it would appear that considerable emphasis is placed on the role which school libraries play in the educational process. Attention is given to the quality of the school libraries, not only of the collection but also of the library staff. Kodrič – Dačić (2004) provides a very clear description of all kinds of libraries in Slovenia. One paragraph is specifically focused on School Libraries. It contains statistical information about all libraries, including school libraries. It explains that data on school libraries are collected by the Statistical Office of the Republic of Slovenia. This paper also reports that there is a school library law in Slovenia. The Financing of Education Act, defines that every school shall have a library, and, in accordance with the standards of the Ministry of Education, Science and Sports, it will be managed only by a trained librarian with a university degree. In addition, library and information skills have long been a compulsory part of the educational programme. This paper also explains that school librarians are still being trained at university level in Slovenia.

IASL, Assembly of Associations, Communiqué 2002 reported that In Slovenia – and in some other Eastern European schools, every school has its own school library and a librarian as well. In Slovenia the librarians must have a university degree in librarianship. But even if the school libraries in Eastern Europe seem to be well taken care of concerning the level of education of professional staff, there librarians share the same problems as school librarians throughout Europe. They are involved in the process of encouraging the integration of school library programmes into the instructional and curriculum development of the schools, and are involved in education students to become information literate.

Jukic (2000) describes the library based information system which was used in Slovenia in 2000. School libraries also used this system.

The Statistical Office, Republic of Slovenia (2006) reports a figure of 896 school libraries in Slovenia in 2006, as follows:

- | | |
|----------------------------------|-----------------------|
| • Elementary schools (Ages 6-14) | 721 school libraries |
| • Upper secondary schools | 118 school libraries. |
| • Other | 57 school libraries. |

This figure varies greatly from the figure which was submitted by the National and University Library of Slovenia to the IFLA/FAIFE World Report 2007. The researcher has written to the Statistical Office, asking for an explanation (1 October 2008). The report also gives information about the lending of (traditional) library materials in school libraries in 2006.

The IASL (2007) reported that schools in Slovenia, celebrated International School Library Day 2007. This event was celebrated with great enthusiasm.

Novljan (2007) reports that school libraries in Slovenia are providing special information literacy programmes in the areas where children from the Roma nationality live (an ethnic minority group).

Digital Library of Slovenia (2008) describes training of school librarians so that they can use the DLIB.SI portal more efficiently.

Three different Human Rights' organization has expressed concern about the exclusion from education of some children from minority groups (Amnesty 2007, COE 2008, and UNICEF 2007).

Specific References: Slovenia

DIGITAL LIBRARY OF SLOVENIA. dLib.si. 2008. *Training of school librarians for efficient use of the DLIB.SI Portal.* http://www.dlib.si/vsebina_eng.asp?id=novice&year=2008. Accessed on 1 October 2008.

EUROPEAN SCHOOLNET, 2008. Country: Slovenia.. <http://www.europeanschoolnet.org/ww/en/pub/eun/network/slovenia.htm> Accessed on 25 August 2008.

IASL (International Association of School Librarianship, 2002. Assembly of Associations, Communiqué 2002 , Country: Slovenia.

IASL (International Association of School Librarianship), 2007. International School Library Day. Slovenia <http://www.iasl-online.org/events/isld/index.htm> Accessed on 5 November 2008 and <http://www.iasl-online.org/events/isld/isld2006/isld2006b.html> Accessed on 2 August 2008 .

JUKIC, BORUS, 2000. *Slovenian Library Based Information System.* Finnish Library Journal, December 2000. <http://www.kaapeli.fi/~fla/flj/jukic.htm> Accessed on 30 September 2008.

KODRIČ – DAČIĆ, E. 2006. *The Library System in Slovenia : the Identity Card.* Ljubljana : National and University Library.

NOVLJAN, SILVA, 2007. *Minority group in a school library.* Paper presented at the World Library and Information Congress: 73rd IFLA General Conference and Council, 2007 in Durban, South Africa <http://www.ifla.org/IV/ifla73/papers/128-Novljan-en.pdf> Accessed on 1 October 2008.

STATISTICAL OFFICE, REPUBLIC OF SLOVENIA. 2006. *Activity of school libraries, Slovenia, 2006.* www.stat.si/eng/novica_prikazi.aspx?id=1397 - 54k Accessed on 1 October 2008.

Name of country: Spain/ España /Spanje – ES

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Spain

1	Population ranking:	8 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 36
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 34 4.2% of GDP
4	Adult literacy	97.4%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006.
8	PISA score	Decrease in scores in 2006 – European score 25 of the 36 European countries which took part in 2006
9	PIRLS score	European score 20 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	40% in 2006
12	ICT policy in schools	See European Schoolnet, 2008
13	Media literacy	See European Commission, 2007
14	Libraries – general information	Did not return the IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Yes – 2006.
16e	National school library association	School Libraries Network.
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See para 11b.
16h	School libraries with internet access to users	81-100%

Statistics show that in 2001 (Eurostat, 2005), Spain spent more of its GDP on education than in 2005 (CIA, 2008), thus it has decreased its expenditure on education.

Spain has announced a series of education reforms. The information above shows that these reforms were urgently needed, as follows:

- Spain scored as number 34 in the European ranking for expenditure on education.
- The percentage of GDP which Spain spent on education in 2005 was lower than that of other countries in a similar income category, with the exception of Andorra. The expenditure appeared to have decreased slightly since 2001.

Communication for this research has been very difficult since there is very little information available about school libraries in Spain in the English language. However it is to be hoped that more information will become available.

Spain did not return information to the IFLA/FAIFE World Report 2007.

Bernard, (Editor, 1997) provides background information concerning school libraries in Spain.

Merlo Vega (2006) states that school libraries in Spain have evolved very quickly in recent years. The educational authorities have been approving school library development policies, and this has greatly improved the situation of these libraries in Spain. The paper refers to the current situation in school libraries, the information literacy initiatives that are being implemented and the plans to promote reading. He goes on to describe a recent national survey of school libraries which describes the facilities and collection of the school libraries.

It concludes that school library collections are not very large and that 31% of them do not meet the IFLA recommendation of ten documents per student. The area where the Spanish school library system is most lacking is in the staff who run them. There are no specialised professionals, and in most cases the libraries are run by teachers who devote a few hours to them each week to fill up their teaching roster. In 53.9% of the libraries surveyed for the FGSR study, library staff were appointed based on their availability. In addition, they usually spent from one to five hours on the running of the library; this was the case in 62.8% of the library supervisors surveyed. It is important to note that only 0.9% of the staff members in charge of primary school libraries perform this task on a full-time basis. This percentage increases to 17.1% among secondary school library staff. Nevertheless, in Spain this work is usually done on a part-time basis.

Furthermore, the article explains the role which (school) libraries can play in the teaching of information literacy and lifelong learning skills. Last but not least the article explains the importance of the role of (school) libraries in reading promotion and describes a number of reading programmes.

The Spanish School Libraries Directory (2008) has been prepared by the Fundación Germán Sánchez Ruipérez and presents information about school libraries from several Spanish autonomous regions. The directory is intended to become a tool to identify working school libraries at different educational levels. The directory will also list good practices. The directory entries contain the following information about each library: identification data, location, contact, services and facilities. In addition, each entry includes projects developed by the library and a picture gallery. The information and search capabilities are presented in Spanish, but here is supposed to be a user's guide in English.

An E-mail was received on 2 June 2008 from Casildo Macías Pereira, School Libraries Co-ordinator of Extremadura Dirección General de Política Educativa, Consejería de Educación, Junta de Extremadura. It gives positive news about new funding for school libraries in this region, and also mentions that there is now a school library law which states that every school in secondary education should have a school library. It was unclear whether or not this information was applicable to the whole of Spains, or to this region only. There is no information about whether or not these school libraries will be run by a qualified school librarian or teacher librarian.

According to Macías Pereira, a School Libraries Foundation for the Development Support has been established. This foundation provides information about the functions of the school libraries and the develop the information literacy skills to use. It is expected that the money which has been allocated to school libraries will be used to improve equipment and infrastructures, including the work of the school library within the curriculum, promoting the training of teachers in this area (last year five courses were available), and to improve available information on good school library practises .

The Extremadura School Libraries Network, consists of representatives from 70 schools. It distributes specialised formation, holds periodic meetings and has a virtual community, where participants can hold on-line discussion and receive (technical) assistance from other participants.

Macías Pereira states that 'the biggest problem that we have is the limited number of school day hours that teachers can put in the library according to the law. This is something that all of us who work in this world are trying to improve, but this is not easy'.

Three consecutive school library projects were funded by the European Union:

- the SLAM (School Libraries as Multimediacentres) (2000) (no Spanish participation),

- an extension of the SLAM project, was known as GrandSLAM (2002). Spain participated in this project. The participating institution from Spain was the Centro del Profesorado y Recursos de Avilés, a Teacher Training and Resource Centre located in Avilés, Asturias,
- a third project, an extension of the SLAM and GrandSlam project, known as the SLAMIT project (2006).

These three projects have brought wide experience and developed expertise with regard to the use of the school library and information centre (multimediacentre) as an effective educational tool in the information age.

Specific References: Spain

BERNARD, Paulette (editor). IFLA (International Federation of Library Associations). 1997. *Resource book for School Libraries and Resource Centers*. IFLA Publications 79. Munich : K. G. Saur

EUROPEAN SCHOOLNET, 2008. Country report: Spain (Catalonia)
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.

EUROPEAN SCHOOLNET, 2008. Country: Spain
<http://www.europeanschoolnet.org/ww/en/pub/eun/network/spain.htm> Accessed on 25 August 2008.

GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf> Accessed on 2 September 2008.

MERLOS VEGA, J.A. 2006. *School libraries, information literacy and reading promotion initiatives in Spain*. Salamanca, Spain : University of Salamanca.

SPANISH SCHOOL LIBRARIES DIRECTORY. <http://vvbad.typepad.com/ensil/SpanishSchoolLibraryDirectory.pdf>
Accessed on 7 August 2008.

SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.

SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008.

Name of country: Sweden/Sverige/Zweden - SE

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – Sweden

1	Population ranking:	21 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 14
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 6 7.1% of GDP
4	Adult literacy	99%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Decrease in scores in 2006 however they are still above the norm. European score 10 of the 36 European countries which took part in 2006
9	PIRLS score	European score 5 of the 27 European countries which took part in 2006
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	24% in 2006
12	ICT policy in schools	See European Schoolnet 2008
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes - partially
16c	Number of school libraries	4,300
16d	National school library law	No
16e	National school library association	See below
16f	National survey of school libraries	No.
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	41-60%

This report indicates that Sweden is a wealth country. It spends 7.1% of its GDP on education and ranks as number 6 in Europe. This shows that the Government of Sweden takes education seriously. The expenditure on ICT in the schools and the facilities which have been provided is also high. Sweden wants to become a sustainable information society.

However, a careful review of the information which is contained above reveals some idiosyncrasies. Despite this high expenditure on education, educational achievement (as measured by the PISA and PIRLS results) has not increased. Also, there is no clear indication of the government's standpoint with regard to the implementation of ICT in the schools for the creation of knowledge. Aspects such as instruction in information literacy and lifelong learning skills, or the instruction of teachers in ICT technical and content skills are unclear.

IFLA/FAIFE (2007) reported that there are an estimated 4,300 school libraries in Sweden. There is a great deal of local content available in local languages on the Internet. Internet access is free of charge in school libraries.

Although some information has been received about school libraries, and the attempts of school librarians to play an important role within the school in the teaching and application of these new skills, it would appear

that the school libraries and school librarians do not have a strong lobby in education in Sweden. The school library is left to the discretion of the school principal, who may not be up to date with regard to the benefits which a good school library can bring to the school. School libraries in Sweden seem to be usually mentioned at upper-secondary level; very little information could be found (in English) about school libraries in primary and lower-secondary schools.

IASL (2002) records the following information about Sweden which was submitted by Ms. Monica Nilsson, Director, Europe of the IASL to the IASL Assembly of Associations, Communiqué 2002, as follows: *'Sweden, has three school library associations covering south, middle and east Sweden. These associations now have tot total of about 500 members. The magazine of the South Association has become most popular – especially the Principal Issue. This is a special issue addressed directly to the Principals'*.

A second submission was made for Sweden by Ms. Marianne Ageberg, Orebro, Sweden to the IASL (2002),. It confirms that three different Associations for School libraries have been formed recently – The South, The North and The East School Library Association. People meet to discuss important matters in different regions. Each association has their own website. ... While these groups were being formed, the National Library Association has been united into one association – university, public librarians and school librarians join together under one umbrella, the Swedish Library Association.

A National project concerning the development of school libraries , and how to get them more integrated into the curriculum ... is run by the National Agency for Education. www.skolverket.se

Some quite large national funds have been spent on Swedish schools in the past couple of years to develop the education and the technology used by the teachers. (three different projects). In all these three projects, the School Librarians have been invited to play a role and special grants have been allocated to them. School libraries were also mentioned in a Bill signed by the Ministry of Finance.

An E-mail from Camilla Lundberg, School Librarian in Landskrona, Sweden received on 16 August 2007 mail states that there is one association networking for all school libraries in Sweden called Nationella skolbiblioteksgruppen - ... the website is www.skolbiblioteksgruppen.se/fakta.htm . Then there are three regional school library associations, one for the south part of Sweden, one for the middle and one for the east. Each of these has a contact personThe national association is not a national public authority. It was started in the middle of 1990's on the initiative of the Swedish authors association. It's more or less a lobby organisation.

Eriksson (2007) asks *'Is there an education of school librarians in Sweden?'* and goes on to describe the education background of school librarians in Sweden. *'In the Swedish curriculum the school library is seldom mentioned. The school library is mentioned as the responsibility of the headmaster and for the upper secondary school as a task for teachers. In the curriculum the school library is mentioned mostly in relationship to the Swedish language education. Information literacy is mentioned in other words here and there and with "school library glasses" you can see the school library hidden here'*. Eriksson describes the curriculum for compulsory schools and discusses the role of the educated school librarian in helping pupils to acquire new knowledge and skills. She also refers to the need for stimulation in reading (especially literature).

Eriksson (2007) also refers to the Swedish Library Act, which states that *'Within the nine-year compulsory school and upper secondary school there should be suitably distributed school libraries in order to stimulate In the upper secondary schools, where over 90% of the Swedish youth are, there are well functioning libraries with educated librarians. ... These librarians are educated in one of the five universities in Sweden with the right to give master library degree with the possibility of specialisation in different ways but not especially for work in schools. One of the universities with master program in library and information science is specialised in pedagogy. ... In the compulsory schools the situation is a lot harder. Half of the schools have not got a library with a librarian working five hours a week. A variety of persons work as school librarian and they have different backgrounds, different training and different levels of competence. More and more of them are trained librarians; here we find teachers and other kinds of pedagogical staff with or without courses in school librarianship. Here we also can find other staff categories who work part-time. There has never been a vocational training for school librarianship. There has been a short element of school librarianship in teacher education but in the new teacher education this subject hopefully is found during the practice. During the practice the teacher students are supposed to meet and learn about lot of things, for example the school library. There are also longer courses at Malmö University.'* The article goes on to provide information about training programmes in school librarianship which are available in Sweden.

Berg (2007) from the Ostra Real Gymnasium, Stockholm records an information literacy programme which takes place in the school library at this school. The objective for this is that the students in Östra Real receive basic training in seeking and evaluating information in Year One, become more adept at finding information, using it and viewing it critically. The school management has decided that the library and the staff there (two trained fulltime librarians) should be in charge of the basic training in information retrieval and associated subjects. Berg also refers to a compulsory research project which takes place at final examination level. A similar project is required in France and in the Netherlands. Instruction in the school library and information centre (school media centre) where pupils are taught research skills plays a very important role in these projects.

After this research was finalised, information was received that the following books have been published in Swedish, to provide school librarians in Sweden more information about new developments in school librarianship and how these developments can be applied to their work: Hell (2008), Nilsson (2007, 2003 and 1998).

The discussion Group for school librarians in the north, managed by Mr. Niels Damgaard, provides a NING for news and discussions about the school libraries in the Nordic countries - in Norwegian, Danish, Swedish - and 5 groups in English <http://skolebibliotek.ning.com/> (Accessed on 26 March 2010).

Specific References: Sweden

- BERG, V. G. 2007. *Information literacy – an assignment for the library.*
<http://iflblog.wordpress.com/category/sweden/> Accessed on 19 November 2008.
- ERIKSSON, B. 2007. *Is there an education of school librarians in Sweden?*
<http://iflblog.wordpress.com/category/sweden/> Accessed on 19 November 2008.
- EUROPEAN SCHOOLNET, 2008. Country report: Sweden
http://insight.eun.org/www/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.
- EUROPEAN SCHOOLNET, 2008. Country: Sweden
<http://www.europeanschoolnet.org/www/en/pub/eun/network/sweden.htm> Accessed on 25 August 2008.
- HELL, M. (2008) *Utveckla skolbiblioteket! Att starta och driva en bra verksamhet.* (Develop the school library! To start and keep a good programme). Lund : y BTJ förlag
- IASL (International Association of School Librarianship, 2002. *Assembly of Associations Communique 2002. Country: Denmark.*The 2002 IASL Conference, Petaling Jaya, Malaysia
http://www.iasl-online.org/events/conf/reports/conference_report2002.html Accessed on 13 November 2008.
- NILSSON, M. (2007). *Informationsfärdighet i praktiken : skolbibliotekarie och lärare i samverkan* [Information Literacy in Practice : School librarians and teacher cooperates]. Lund : BTJ förlag.
- NILSSON, M. (2003). *Informationsfärdighet i skolan : skolbiblioteket som pedagogisk resurs.*[Information Literacy in School :The School Library as a Pedagogical Resource]. Lund : Bibliotekstjänst
- NILSSON, M. (1998). *Skolbiblioteket - skolans informationscentrum : en praktisk handledning för skolbibliotekarier, lärare och skolledare* [The School Library - The Information Center of School : a practical hands on for school librarians, teachers and principals]. Lund : Studentlitteratur.

Name of country: Switzerland - CH

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – Switzerland

1	Population ranking:	24 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 6
3	Expenditure on education - % of GDP	European rank – 13. 5.8% of GDP
4	Adult literacy	99%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See comments COE, 2006
8	PISA score	European score 5 of the 36 European countries which took part in 2006
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	See European Schoolnet, 2008.
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 - recipient warns that exact figures are unavailable.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	No. See below. (Also IFLA/FAIFE, 2007)
16d	National school library law	No
16e	National school library association	No – there may be regional associations
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	41-60%

Switzerland is one of the countries with the highest GNI per capita in the world today

The percentage of GDP which Switzerland spends on education is lower than in some other prosperous countries – it scores as number 13 in the European ranking.

According to the webpage of the Federal Department of Foreign Affairs (2008), compulsory schooling, lasts for 9 years (primary and 1st secondary school levels). The second secondary level is the post-compulsory stage. More than 50% of young people chose a practical vocational training, which lasts up to four years. ...

In Switzerland it is possible to study in all three official languages (German, French and Italian) but it is also becoming increasingly popular to study in English.

Switzerland is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

Switzerland took part in the PISA tests 2003 and 2006. On both occasions it scored well above the norm; scores in reading were just under the norm, but remained the same in 2003 and 2006.

The strategy for the introduction of ICT in schools can be found in para 6. Until recently there was no clear overall ICT policy.

It has been extremely difficult to find any information about school libraries in Switzerland, except for the mention in the IFLA/FAIFE World Report 2007. It provides the following information: there are 47 libraries of specialised high school networks. The respondent cautions that exact figures are not available. The decentralized, federal structure of Switzerland makes it difficult to obtain correct information. The statistics which have been provided in the report are from 2006.

The researcher writer has written to many different organisations, without success. The lack of information may be due to:

- The federated system of education in Switzerland (i.e. de-centralised)
- The diversity in official languages which are spoken in this country.

Very little information about the work of school libraries in Switzerland is available in the English language, however, in 2007, school librarians from two different schools in the Basel Region sent information to the international school library community about their International School Library Day celebrations (IASL, 2007).

References: Switzerland

- CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-world-factbook/index.html>
- CIA (Central Intelligence Agency), 2008. *The World Factbook* UNICEF. <https://www.cia.gov/library/publications/the-world-factbook/geos/sz.html> Accessed on 10 August 2008.
- COE (Council of Europe), ECRI. 2006 http://www.coe.int/t/e/human_rights/ecri/1-ecri/2-country-by-country_approach/Switzerland/ Accessed on 18 August 2008.
- EUROPEAN SCHOOLNET, 2008. Country : Switzerland <http://www.europeanschoolnet.org/www/en/pub/eun/network/switzerland.htm> Accessed on 24 August 2008.
- FEDERAL DEPARTMENT OF FOREIGN AFFAIRS, 2008. *Education in Switzerland*. <http://www.eda.edmin.ch/eda/en/home/refs/afri/vsdn/infoch/chwoed.html> Accessed on 24 September 2008
- IASL (International Association of School Librarianship), 2007. <http://www.iasl-online.org/events/isld/isld2006/isld2006d.html#switzerland> Accessed on 2 August 2008
- IFLA/FAIFE World Report, 2007. http://www.ifla.org/faife/report/ifla-faife_world_report_2007-reports.htm Accessed on 9 June 2008.
- Internet World Stats. <http://www.internetworldstats.com/europa2.htm> Accessed 1 August 2008.
- OECD (Organisation for Economic Co-operation and development), 2006. *Assessing Scientific, Reading and Mathematical Literacy*. http://www.oecd.org/document/33/0,3343,en_32252351_32236191_37462369_1_1_1_1,00.html Accessed on 2 August 2008.
- UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008
- WORLD BANK. 2008a. *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008. <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008.
- WORLD BANK DDP Data query <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport> Accessed on 6 September 2008.

Name of country: Tajikistan - TJ

Indicators which are relevant to this study.

Note:

Although Tajikistan may be considered to be located outside Europe (Central Asia), it was a member of the former USSR, and was included in some UNICEF and UNESCO studies and reports which provided information about Europe and Central Asia. These studies are relevant to this research and for this reason, Tajikistan has been included in this study.

Specific conclusions – Tajikistan

1	Population ranking:	26 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 187 42.8% of population live under 2 dollars (PPP) per day.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 42 3.4% of GDP.
4	Adult literacy	99.5%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	91%. Tajikistan has achieved universal primary education (UPE) or soon will.
7	School attendance of children from minority groups	No reliable information could be found.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	Unknown
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See para 11.
16h	School libraries with internet access to users	Unknown

The information contained in this report on Tajikistan speaks for itself.

Tajikistan is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research. Also, it did not take part in the IFLA/FAIFE World Report 2007. It can be concluded that very little current information is available in the English language about schools in Tajikistan. However, from the information shown above, the following is known:

- Tajikistan is one of the poorest countries in this study
- There was 99.5% adult literacy in Tajikistan in 2007.
- Until the end of the communist era, education in Tajikistan followed the standard Soviet model.
- The quality of education in Tajikistan is poor and for this reason, the international community has implemented assistance and aid programmes to improve this situation.

According to Country Studies, Tajikistan (2008), by 1920, few Tajiks had received a formal education. According to the Soviet census in 1926 the literacy rate was 4% for Tajik men and 0.1% for Tajik women in the territory of present-day Tajikistan and the Republic of Uzbekistan. During the ensuing decades, the Soviet system prevailed, however, prior to 1991, the level of educational attainment in the adult Tajikistani population was below the average for Soviet republics.

During the Soviet period, the languages of instruction in schools were Tajik, Uzbek, Kyrgya and Russian. Since independence, the language of instruction is Tajik.

The Asian Development Bank's report (2003) shows a decline in resources and rising poverty since 1991. This has had an adverse impact on the education system. Enrolment levels have collapsed .

According to the Asian Development Bank (2003), Tajikstan places high priority on reforming and modernizing its education system and has produced a national policy document, the *Concept of Education*, which presents a plan of action to:

- Provide a framework for teacher training;
- Implement a teacher appraisal system and offer incentives for teachers;
- Implement strategies to attract and retain more female teachers.

According to UNICEF (2008),

- *Half of Tajikistan's population is under 18 years of age; two thirds live in rural areas.*
- *Poverty has forced a million Tajiks to work abroad. This migration has resulted in financial benefits for the workers' families, but has also lead to the abandonment or institutionalisation of children. 11,000 of Tajikistan's institutionalised children are not orphans.*
- *One fifth of Tajikistan's schools were destroyed during the civil wars of the 1990's, and many others lack sanitary facilities or heat.*
- *Low teacher pay has induced many teachers to seek other jobs, and there are widespread shortages of textbooks and other materials.*

The Asian Development Bank (2003) has provided a grant for the following reasons. Tajikistan's education system is under significant threat following Independence and cessation of large subsidies from the former Soviet Union. Prolonged civil strife has caused physical damage to an estimated 20% of the school facilities. Also the financing of education has been sharply reduced because of an overall downturn in the economy. ... There is an urgent need to institutionalize systematic reforms to make primary and general secondary education more affordable, efficient, relevant and equitable within a coherent and affordable national education development framework. ...

A number of international aid agencies (see below) have expressed concern about the fate of teachers in Tajikistan and the training of new teachers. There is an urgent need for teachers. Currently there is a shortage of around 6,000 teachers. While 8,000 student teachers enrolled on state-funded training courses, and more than 4,000 graduated this year, many will opt not to go into teaching because it is poorly paid and offers few prospects (Children and armed conflict unit (2007)). Students receiving a government grant sign a contract with the university that obliges them to remain in the profession for three years. The authorities often use the system to fill less desirable job vacancies in remote country schools, but many graduates turn down such jobs in spite of their contractual obligations. A new clause will now be added to the contract which means those who leave within the first three years after graduation can be prosecuted in an attempt to recoup the money spent on training them. Aslibegim Manzarshoeva and Lola Khalikjanova from, the Children and armed conflict unit (2007), Institute for War and Peace Reporting report that harsh sanctions for teachers who leave the profession early will not solve staff shortages in Tajik schools.

The Aga Khan Development Network (2008) speaks about the paramount need for ensuring that students have a positive and productive learning environment. It is trying to provide their teachers with skills training and access to the most current teaching methods.

USAid Programme Tajikistan (2008) reports that, in Tajikistan, their program is focused on primary education (grades 1-4), and covers aspects such as improving in-service teacher training; increasing parent and community involvement in schools; strengthening institutional, management, and technical capacity at all levels of the educational system; and improving school infrastructure. ... USAID will continue training and capacity building activities for teachers at an expanded number of sites, including the pilot schools and surrounding cluster schools identified during the first year of this strategic objective. Teacher training will strengthen teachers' skills in pedagogy, and development of curricula and learning materials to help them achieve better student performance results. Teachers will also receive printed materials on best international teaching methodologies.

According to the Save the Children Fund (2008a and 2008b', the problem of poor school infrastructure, low morale of teachers due to low salaries, and lack of investment in teachers' skills and competencies remains a challenge. Many qualified teachers continue to look for alternative jobs for better income and improved quality of life. ... Many qualified teachers are still leaving their jobs for better incomes. "Teachers' salaries are so low that many have had to find jobs elsewhere or supplement their salaries with private tutoring or informal "fees." With rising levels of poverty, many children do not go to school or attend only occasionally. Save the Children is working to improve the quality of preschool and primary school education by providing

in-service teacher training, which has been recognized by the Government of Tajikistan and included it in its own training plans.

UNESCO (2007 and 2008) contains important information relating to education in countries located in Central and Eastern Europe. It states that, at country level, Tajikistan has achieved universal primary education (UPE) or soon will.

International Education Partners (2008) have reported that they took part in a World Bank project in Tajikistan to help promote the publication and production of books (including books for children) in the Tajik language.

Nothing is known about school libraries in Tajikistan, although it is presumed that they were provided during the Soviet period and followed the Soviet model. The writer of this dissertation tried to contact library associations in Tajikistan, in an attempt to obtain some information about the situation in school libraries in this country. These requests were sent by letter (registered mail), by E-mail and by "word of mouth" from one librarian to another. Months after the requests had been sent, a report was received, in English, about a book day celebration which had been held at one school. Great care had been taken in the written description of this celebration. Although the writer of the report wishes to remain anonymous, the researcher was deeply touched by the effort which had been taken to take part in this survey, to send some information about the efforts which teachers and librarians are making to educate the children in Tajikistan, and to actually write the report in English, a language which was obviously not one which was often used.

References: Tajikistan

- AGA KHAN DEVELOPMENT NETWORK, 2008. *Teacher training and education in Tajikistan*.
http://www.akdn.org/tajikistan_education.asp Accessed on 20 Nov. 2008
- ASIAN DEVELOPMENT BANK, 2003. Asian Development Bank : *Report and recommendation of the President to the Board of Directors on a proposed loan and technical assistance grant to the Republic of Tajikistan for the education sector reform project, Report Nr. RRP:TAJ 37175 dated 30 November 2003*
- CHILDREN AND ARMED CONFLICT UNIT. 2007. *Educationalists say harsh sanctions for teachers who leave the profession early will not solve staff shortages in Tajik schools*.
http://www.essex.ac.uk/armedcon/story_id/000625.html . Accessed on 20 November 2008.
- CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-worl-factbook/index.html>
- CIA World Factbook, 2008 edition. <https://www.cia.gov/library/publications/the-worl-factbook/index.html> Accessed on 21 September 2007.
- COUNTRY STUDIES, Tajikistan. 2008. *Education*.
<http://www.country-studies.com/tajikistan/education.html>. Accessed on 14 August 2008.
- International Education Partners, 2008. <http://www.iepartners.co.uk/> Accessed on 21 September 2008..
- Internet World Stats. <http://www.internetworldstats.com/europa2.htm> Accessed 1 August 2008.
- SAVE THE CHILDREN FUND, 2008a. *Education activities in Tajikistan*.
<http://www.idp-europe.org/eenet/newsletter5/page26.php> Accessed on 20 Nov. 2008.
- SAVE THE CHILDREN FUND, 2008b. *Save the Children in Central Asia - Education*.
<http://www.savethechildren.org/countries/middle-east-eurasia/tajikistan.html> Accessed on 20 Nov. 2008
- UNESCO, 2007a. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.
- UNESCO. United Nations Educational, Scientific and Cultural Organisation , 2008b. *Education for All (EFA) Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0015/001547/154743e.pdf> Accessed on 4 November 2008.
- UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008
- USAID Programme Tajikistan, 2008. <http://www.usaid.gov/policy/budget/cbj2005/ee/pdf/119-0340.pdf> Accessed on 20 Nov. 2008.
- WORLD BANK DDP Data query <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport> Accessed on 6 September 2008

WORLD BANK. 2008a. *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008.

<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008.

WORLD BANK, 2008b. Education at a glance : Tajikistan.

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTEDUCATION/EXTDATASTATISTICS/EXTEDSTATS/0,,contentMDK:21227521~menuPK:3409559~pagePK:64168445~piPK:64168309~theSitePK:3232764,00.html> Accessed on 21 September 2008

Name of country: Turkey - TR

Indicators which are relevant to this study.

- Member of the Council of Europe
- Candidate member of the European Union (EU)

Specific conclusions – Turkey

1	Population ranking:	3 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 77
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 35 4.0% of GDP
4	Adult literacy	87.4%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	86%. UNESCO, 2008
7	School attendance of children from minority groups	See COE, 2006 and Amnesty, 2007.
8	PISA score	Slight decrease in scores in 2006 – European rank 30 of the 36 European countries which took part in 2006
9	PIRLS score	Turkey did not take part in the 2006 testing. In 2001, the average score was considerably below the norm. The rank in Europe at that time was 29.
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	No
16c	Number of school libraries	19,684
16d	National school library law	Yes
16e	National school library association	Unclear
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unclear
16h	School libraries with internet access to users	Less than 20%.

Turkey is a candidate for membership of the European Union. For this reason, information is unavailable from many of the studies which have been used during this research.

According UNICEF (2008), Turkey is one of the world's fastest growing economies, but the benefits are not shared by all. Although there is no guarantee of admission, Turkey's candidacy for entry to the European Union has led to legal reforms ...Rural populations lag behind urban dwellers in almost every social and economic index, from mortality rates to school enrolment. Hundreds of thousands of girls are out of school. In rural areas, a lack of schools and classrooms means that some teachers have more than 100 students per class. Child labour remains widespread, as does child marriage. The minimum marriage age for girls was raised from 15 to 17.

The adult literacy rate in 2008 (male and female) is only 87.4% - one of the lowest in this study.

The number of years of compulsory education (9 years) is relatively low.

Both UNICEF and UNESCO have made some negative remarks about education in Turkey, especially about children who are out of school (see para 8b and 9d). According to UNESCO (2008), the Russian Federation, Turkey and Ukraine have the largest numbers of children who do not attend primary school, with more than 300,000 each

The British Council (2008) provides a description of Education in Turkey.

Turkey ranked below the norm in the PISA testing (2006 report and in the PIRLS (Progress in International Reading Literacy Study, 2001

Information about libraries and school libraries in Turkey seems to be conflicting. The researcher is still looking for confirmation of some of the statements which have been made in this report.

Turkey reported a very high number of school libraries in 2007 (IFLA-FAIFE, 2007), however very little is known about the quality of these libraries. These figures were submitted by an anonymous respondent IFLA/FAIFE (2007) reports that:

- Access to the internet in school libraries is free of charge, however less than 20% of them have internet access for users. The state and/or library authorities have made extra funding available for Internet access in libraries in the last two years.
- An average amount of local content is available on the Internet and an average amount of this is available in local languages.
- The institution which responded to the FAIFE/IFLA World FReport 2007 and supplied the information for this report has requested to remain anonymous.

In a letter dated 24 March, 2005, the Republic of Turkey, Ministry of Culture and Tourisme, Presidency of National Library reported the following:

- In the average primary school in Turkey, there is at least a bookcase which functions as the school library;
 - There are no trained school librarians in average primary schools in Turkey, however the average secondary school has a school library
 - There are a few school librarians working in these secondary school libraries.
 - There is no National School Library Association in Turkey, however there is a Yahoo group for school librarians.
 - Librarians are still being trained at academic level in Turkey, at 6 different universities.

It would appear that Turkey is making efforts to improve the quality of both the education system and also the school libraries. These efforts seem to be effective in independent and/or international schools, but the researcher was unable to find information about the quality of education of school libraries in normal public schools.

According to Önal (1995), with scientific and technological developments necessitating a complete reorganization of the educational system, Turkey is seeking new ways with which to revise its system to meet emerging needs. School libraries play a vital role in supporting the curriculum in developing countries such as in Turkey where the Turkish educational system is in the process of reorganization. According to Dr. Önal:

- Regulations (laws) were enacted in 1959 and amended in 1976, which are relevant to school libraries.
- Every school in Turkey has a library
- The aim is to match this quantity of school libraries with the required quality and functionality which is expected of school libraries.
- The aims are to:
 - Spread modern libraries run by specialists/librarians with their own budgets, well equipped with a wide range of information resources, with sufficient space made available to users;
 - Pass statutes to provide legal rules for school libraries;
 - Provide social support;

- Support the research and training in school librarianship.
- The Ministry of National Education had (at the time of writing of this paper) prepared some projects and plans to:
 - Introduce computers into school libraries;
 - Enrich computer-supported education;
 - Meet the information needs of users through various information resources;
 - Spread the use of Internet in schools;
 - get access to information resources throughout the world.

Önal concludes that school librarianship still has a long way to go in Turkey, but that investment in school libraries means investment in our future which will have a great impact on all people. In 2005, Önal published a new paper which records the progress in school librarianship in Turkey. Changing information needs make it necessary to extend school library services to include new information resources. School librarians must help students understand their information needs and the resources and information technologies available.

There is an active group of school librarians (mostly working in private schools) in Istanbul (School Libraries Net, 2008).

In October 2008, with the help of an interpreter, the writer held informal interviews in Turkey, with children and tertiary level students, about school libraries in public schools. The interviewees wished to remain anonymous. The impression which was received was this:

School libraries do exist in most Turkish public schools. They are under the supervision of a teacher, but are usually run by older pupils, who carry out the administration. They are open during the breaks. Sometimes the collection is old, but this is not always the case.

The interviewees were “defensive” of their school libraries. They didn’t want the researcher to write anything “negative” about them. They gave the impression that they were actually quite “fond” of their school libraries.

It was very difficult to judge how often the pupils actually use the school library. It was also very difficult to determine the actual facilities, collection and staffing of these school libraries.

In Turkey all librarians and archivists have the same university training.

In 2006 two school libraries in Istanbul, Turkey took part in International School Library Day. The school librarian sent information about the celebrations to the IASL (International Association of School Librarianship) / IASL, 2006.

References: Turkey

AMNESTY INTERNATIONAL, 2007. Europe and Central Asia. *Summary of Amnesty International's Concerns in the Region, January – June 2007*. <http://www.amnesty.org/en/library/info/EUR01/010/2007/en> Accessed on 1 November 2008.

BRITISH COUNCIL (2008). <http://www.britishcouncil.org/eumd-information-background-turkey.htm>
Accessed on 10 August 2008

CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-world-factbook/index.html> Accessed on 22 September 2008.

COE (Council of Europe), ECRI. 2006
http://www.coe.int/t/e/human_rights/ecri/1-ecri/2-country-by-country_approach/Turkey/ Accessed on 18 August 2008.

EUROEDUCATION.Net Central and Eastern European Education Directory. 2008. *Structure of education system in Turkey*. <http://www.euroeducation.net/prof1/turkco.htm> Accessed on 28 August 2008.

EURYDICE, 2007. *National summary sheets on education systems in Europe and ongoing reforms. Country : Turkey* Brussels : Directorate-General for Education and Culture.

IASL (International Association of School Librarianship), 2006.

<http://www.iasl-online.org/events/isld/isld2006/isld2006d.html#turkey> 2 August 2008

- IEA. International Association of Educational Achievement. 2006. *PIRLS (Progress in International Reading Literacy Study) International Study Center, 2006. International Student Achievement in Reading. Chapter 1, exhibiy 1.1 : Distribution of Reading Achievement.* Boston, Ma : Lynch School of Education, Boston College.
- IFLA/FAIFE World Report 2000 : *Libraries and Intellectual Freedom.* Country: Turkey
<http://www.ifla.org/faife/report/turkey.htm> Accessed on 14 August 2008.
- IFLA/FAIFE World Report, 2007. http://www.ifla.org/faife/report/ifla-faife_world_report_2007-reports.htm
 Accessed on 22 September 2008.
- OECD (Organisation for Economic Co-operation and development), 2006. *Assessing Scientific, Reading and Mathematical Literacy.*
http://www.oecd.org/document/33/0,3343,en_32252351_32236191_37462369_1_1_1_1,00.html Accessed on 2 August 2008.
- ÖNAL H. Ünci, 1995. *The future roles and functions of the school libraries: A project for Turkish school libraries.*
<http://www.ifla.org/IV/ifla61/61-onau.htm> Accessed on 22 September 2008.
- ÖNAL H. Ünci, 2005. *New developments on the Turkish school library scene. Journal of Librarianship and Information Science, Vol. 37, Nr. 3, 141-151 .*
- PIRLS. The Reading Literacy of U.S. Fourth-Grade Students in an International Context, Results from the 2001 and 2006 Progress in International Reading Literacy Study (PIRLS) Table B-3, page 29. November 2007.
- SCHOOL-LIBRARIES.NET <http://www.school-libraries.net/turkey.htm>
- UNDP (United National Development Programme, 2008b. *Human Development report 2007/2008.*
http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf Accessed on 28 August 2008
- UNESCO, 2007. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report.* Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.
- UNESCO. United Nations Educational, Scientific and Cultural Organisation , 2008. Education for All (EFA) Global Monitoring Report. Paris : UNESCO. <http://unesdoc.unesco.org/images/0015/001547/154743e.pdf>
 Accessed on 4 November 2008.
- UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008
- UNICEF. United Nations Children's Fund , 2008. <http://www.unicef.org/infobycountry/Turkey.html> Accessed on 4 May 2008
- WORLD BANK DDP Data query <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport>
 Accessed on 6 September 2008
- WORLD BANK. 2008. *Gross national income per capita 2007, Atlas method and PPP.* World Development Indicators database, World Bank, 1 July 2008.
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008.

Name of country: Turkmenistan - TM

Indicators which are relevant to this study.

Note:

Although Turkmenistan may be considered to be located outside Europe (Central Asia), it was a member of the former USSR, and was included in some UNICEF and UNESCO studies and reports which provided information about education and school libraries in Europe and Central Asia. These studies are relevant to this research and for this reason, Turkmenistan has been included in this study.

Specific conclusions – Turkmenistan

1	Population ranking:	31 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – Unknown. PPP rand (international dollars – 135. 30% of population below national poverty line. – estimated by the CIA in 2004.
3	Expenditure on education	European rank – 36 3.9% of GDP. This figure is from 1991 and can no longer be considered to be relevant.
4	Adult literacy	98.8%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	Not information available. Relatively low ratios in the past.
7	School attendance of children from minority groups	No information available.
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Did not return IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	Unknown
16d	National school library law	Unknown
16e	National school library association	No
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	Unknown
16h	School libraries with internet access to users	Unknown

Turkmenistan is one of the poorest countries in this survey.

It is a former member of the USSR, and for that reason has been included in this study. It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

Experts considered the overall level of education (before 1991) to be comparable to the average for the Soviet republics.

Education is free of charge.

Education in Turkmenistan retains the centralized structural framework of the Soviet system, but significant modifications are under way. This is partly because the objective of education have been redefined, and also because the government is trying to produce a highly skilled workforce

Reforms such as cultural goals, multilingual training (in Turkmen, English and Russian) and the implementation of alphabet reform are important.

The primary and secondary educational systems are now being restructured according to Western models.

It is possible that some of the above information from Country Studies Turkmenistan (2008) is somewhat dated.

It can be concluded that very little current information is available in the English language about schools in Turkmenistan.

According to UNICEF (2008): Because teenagers are expected to help with agricultural work, the school year is only 150 days long. The curriculum is unique in Turkmenistan, and omits or gives short shrift to basic core subjects

UNESCO (2008) reports that: *Information is missing from Turkmenistan. It had relatively low(NER) ratios in the past*

Richardson (2006) provides interesting information about the library world in Turkmenistan, however very little is known about school libraries. He makes the following statement about school libraries:

The Ministry of Education is responsible for secondary education and oversees about 1,800 schools offering some or all of the secondary grades. ... However more recent analysis suggests that the Turkmenistan school system is in the decline. ... The number of teachers has decreased and English and Russian schools have been closed. ... The actual size of a school's library depends on the capacity of the school ... The actual collections are Spartan. No computers and no Internet access are available. ...

LIS (Library and Information Science) education takes place at the Turkmen State Institute of Culture.

Turkmenistan does have a National Library but it did not return information to the IFLA/FAIFE World Report 2007 or to the 2005 ENSIL Survey.

According to Richardson (2006), librarians are being trained in Turkmenistan but no specific information is available about the training of school librarians.

References: Turkmenistan

CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-worl-factbook/index.html>

COUNTRY STUDIES, Turkmenistan. 2008. .
<http://www.country-studies.com/Turkmenistan/education.html>. Accessed on 14 August 2008.

Internet World Stats. <http://www.internetworldstats.com/europa2.htm> Accessed 1 August 2008.

RICHARDSON Jr., John V. 2006 *Library and Information Economy in Turkmenistan*. IFLA Journal. Vol. 32 (2006), Nr. 2. Den Haag : IFLA (International Federation of Library Associations).

UNESCO, 2007b. *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> Accessed on 3 November 2008.

UNESCO. United Nations Educational, Scientific and Cultural Organisation , 2008. *Education for All (EFA) Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0015/001547/154743e.pdf> Accessed on 4 November 2008.

UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008

UNICEF (United Nations Children's Fund) (2008) <http://www.unicef.org/infobycountry/Turkmenistan.html> Accessed on 4 May 2008

WORLD BANK DDP Data query <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport> Accessed on 6 September 2008.

WORLD BANK. 2008. *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008.
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008.

Name of country: United Kingdom (England) / UK/Verenigd Koninkrijk – GB (UK)

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

This report contains information about England and about the U.K. in its entirety, where no individual country has been mentioned. When specific information was available, this was included on a separate report for the United Kingdom (Northern Ireland), United Kingdom (Scotland), or United Kingdom (Wales). This has been done because in some instances, each separate country from within the UK had a specific opinion, had taken part in testing as an individual country, or had published interesting studies, reports and papers about one individual country within the UK.

On the other hand, however, some information and reports were published about the UK in its entirety. These reports have been included in the report on UK (England).

Specific conclusions – United Kingdom (England)

1	Population ranking:	5 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank - 19
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 15 5.6% of GDP
4	Adult literacy	99%
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	European score (entire country) 11 of the 36 European countries which took part in 2006
9	PIRLS score	See para 4 – Decrease in score. European score (England) 12 of the 27 European countries which took part in 2006. In 2001, England ranked 3 rd in the European ranking,
10	Statistics of use of ICT in schools	See Korte & Hüsing, 2006.
11	ICT in the school library 2006	49% in 2006
12	ICT policy in schools	See European Schoolnet, Country – England 2008 and Country – U.K. 2008.
13	Media literacy	See European Commission 2007 and also comments below.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 – information on school libraries has been queried.
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unclear. In the 2004 ENSIL survey, the SLA reports 2,058 secondary school libraries. No figures from IFLA/FAIFE 2007.
16d	National school library law	No
16e	National school library association	Yes, plus a special interest group for school libraries at national level.
16f	National survey of school libraries	Partial survey – not all schools took part.
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	81-100%

The United Kingdom is a country with a large population. Statistics show that in 2005 (CIA 2008), the UK spent more of its GDP on education than in 2001 (Eurostat 2005), thus it has increased its expenditure on education. Para 5 shows that expenditure on the introduction of ICT into schools has been high.

Eurydice (2007) records the following information about the training of teachers . Information on the United Kingdom (England, Wales and Northern Ireland). Teachers are not civil servants. School teachers are employed by the local authority or by the individual institution, depending on the type of school. The main routes to Qualified Teacher Status (QTS) in England and Wales and 'eligible to teach' status in Northern Ireland are the concurrent and the consecutive routes. Concurrent route – 3 or 4-year Bachelor of Education degree. Consecutive route – a Bachelor's degree followed by a Professional or Post Graduate Certificate in Education (PGCE). In England and Wales, other training routes are also available. Primary school teachers are usually generalists; secondary school teachers are specialists. (please refer to the referenced document).

The study which was carried out by the European Commission (2007) into Media Literacy (Country profile : United Kingdom) states that *'there has been a significant integration of ICT and digital literacy into the educational system, both in terms of multimedia content and inclusion in the curriculum'*. It refers to the definition mentioned below in Ofcom 2008. *There are still no agreed standards of attainment in media literacy.* The European Charter for Media Literacy specifically mentions the integration of Media Literacy in the curriculum and describes how media literacy has been included in the curriculum for children from primary school age, through to upper secondary school. However there is no specific mention of media literacy as a tool for academic achievement, There report does not mention who is qualified to teach this subject and where this person has obtain his or her credentials. In the U.K., Media Literacy is not a specified subject, although there are many options related to ICT which can be part of an integral approach to media literacy. A list of actors in Media Literacy does not include information specialists.

Ofcom (Office of Communications) (2008) provided a detailed, interesting report which provides a useful definition of Media Literacy. Nevertheless when speaking about lessons or instruction in media literacy, there is no specific mention made about information literacy, as a part of media literacy.

The United Kingdom is a country with a strong school library tradition (Clyde, 1981) , with enthusiastic school librarians, volunteers and school library associations. However, attention needs to be paid to the changes which have taken in learning due to the introduction of ICT within the school, and the new role which the school library can play in this learning. While the accepted, traditional values of the school library are still important, there are also new ways in which the school library and the trained school librarian can enhance the learning and the academic achievement of pupils.

The FAIFE/IFLA World Report 2007 was returned by the Chartered Institute of Library and Information Professionals (CILIP). No information was received about school libraries in primary schools.

When compared with other countries in this survey, it could be noted that the link between the educational role of the school library within the school, and the way it can be used to improve academic achievement is not optimal. The role of information literacy instruction as a part of media literacy instruction for pupils is very unclear. Some other countries within this European survey have already recognized and clarified this problem. The expectation is that their scores in international testing of academic achievement will rise or will remain high. By comparison, the scores of the United Kingdom could be said to be on the low side. Of course, there are always extenuating circumstances which are mentioned in the referenced documents but nevertheless, a downward trend in the quality of education and educational excellence is inadvisable. In the UK, it appears that school librarians with both a library and a pedagogical background are no longer being trained at academic level. Short trainings are taking place. School librarians are referred to as "middle management, in other words, they do not have a pedagogical role within the school. Salaries are not compared with those of the teaching staff. New trends in school librarianship in some other countries in this survey should be considered by the United Kingdom.

In a number of the references above, comments are made about lack of funding for the school libraries in the UK

Ray (1978) and Clyde (1981) have provided interesting historical background information about school libraries in the U.K.

The United Kingdom has a long history of school librarianship [Clyde 1981]. It has two strong professional associations which support school librarianship:

The School Library Association (SLA 2008), which was founded in 1937. The SLA has branches in Northern Ireland, Scotland and the Republic of Ireland. At the time of writing (November 2008) there are also 13 branches in England and Wales. This association's website gives support to thousands of school librarians throughout the UK, in primary and secondary schools. It contains a wealth of information about reading, books, information literacy in the school library, training of librarians, government reports on school libraries, etc.. The website also contains some information in other European languages. (Please refer to the referenced website). It also publishes a quarterly magazine which contains articles and other information about current trends in school librarianship.

Chartered Institute of Library and Information Professionals (CILIP), has a special interest group for school libraries (CILIP 2008). This organisation also has its own website and publishes information which is very useful for working school librarians (see referenced site).

The school libraries group of CILIP and the SLA have a forum, where they discuss subjects of mutual interest.

The work of the school library is often supported by a School Library Service (LISU, 2008). This service can sometimes be provided by the public library or the municipal council, at local level. A detailed report on the work of the School Library Service was published in 2005/2006 (see referenced document) however, the website informs the reader that these statistics are no longer being collected, due to funding problems.

CILIP (2003) describes the campaign and publication known as: *School Libraries – Making a Difference*. The Department for Education and Skills (DfES), the Chartered Institute of Library and Information Professionals (CILIP), the Association of Senior Children's and Education Librarians (ASCEL) and the School Library Association (SLA) supported this campaign and its publications, for the advocacy of school libraries. This site supported Schools Library Services and school librarians in England and helped them assert the importance of their role and the significance of the school library. The campaign provided strategies, arguments, facts and figures to support the campaign. Its publications contain case studies and supporting material, which emphasises the benefits of school libraries to teaching and learning, literacy across the curriculum, homework support, information literacy skills, Independent reading/writing/study. It also emphasises creative benefits and reader development. Over 80% of English LEAs (Local Education Authorities) subscribed to the promotion through their Schools Library Service. A special brochure; "School Libraries Making a Difference" as part of an advocacy campaign Publication: <http://www.schoolibrariesadvocacy.org.uk/toolkit/download.asp>

OFSTED (Office for standards in Education) report, (2006). *Good school libraries : Making a difference*. This important report "sought to evaluate the key factors that lead to improvements in (school) libraries and to highlight existing good practice".

In an article about the Ofsted report (published on the SLA website (2008), Mirian Rose, Director of Education, is quoted as follows:

"School libraries are an important resource in schools and should be used effectively. Many schools are doing a good job and pupils are benefiting from it; other schools can learn from this good practice. But in those schools where weaknesses remain it's very important that schools make the necessary improvements. It's important for headteachers, senior managers and librarians to work together to develop library provision that benefits the whole school and its pupils."

In order to bring about improvements inspectors recommended that schools:

- *improve evaluation of their library, taking account of the full range of evidence to assess its impact on pupils' learning and requiring librarians to report formally*
- *develop the quality and coherence of programmes for teaching information literacy to provide better continuity, challenge and progression in pupils' learning*
- *extend use of the library by teachers and pupils throughout the day, but especially by primary pupils at lunch time*
- *improve use of the library by Key Stage 4 pupils*
- *consider ways to promote pupils' independent study by more effective use of the library.*

Those responsible for advising and supporting schools in developing their libraries need to:

- *work with headteachers and senior managers, as well as librarians, in order to develop provision and integrate developments with other whole-school priorities."*

This valuable assessment tool has been translated into Portuguese, for use by members of the Association of School Librarians (RBE) in Portugal.

IASL (2007) refers to a communique which was made by the School Library Association (SLA) in 2007. It makes specific reference to a literacy project for boys. The Department of Education and Skills commissioned the SLA to write a Riveting Reads Booklists, which was aimed at getting reluctant boy readers of 11 – 14 years to read. Also, it mentions the School Librarian of the Year Award, which provides national publicity for school libraries. Professional development activities for school librarians are also mentioned, including many training courses around the UK. The SLA's annual conference in 2007 was focussed on the Future of School Libraries. The SLA was able to work together with another organisation, Booktrust, who are running research on school libraries at present, to ensure that some of the questions which the SLA wanted answered were included in their research. New SLA resources included a Message Board for members on the Members' area of our website, (www.sla.org.uk) and also created a Mentoring Scheme for new school librarians. The SLA also now has a full time advisory librarian to support members and create more advisory material on the Members' area of the website. The SLA celebrated International School Libraries Day for the first time in 2007, but as it always falls in the UK school holidays, the SLA took the decision to celebrate it early, on the first Monday in October, where it falls naturally into National Children's Book Week. Resources were created on our website, including downloadable posters and postcards or bookmarks. The Communiqué also listed new SLA publications which were produced in 2007. The challenges for 2008 were described as a desire to continue to build on the good foundation which has been laid and also to take part in the National Year of Reading. The SLA also wants to collect statistical information about other countries for comparisons, eg about statutory school libraries, average spending on books, whether qualified librarians and / or teachers are compulsory or optional in school libraries etc. Co-ordinating such research or benchmarking would be a very useful thing for IASL to undertake.

Usher.(2007) published the following information about school libraries in the U.K. and the Rep. of Ireland.

'In neither the UK nor the Republic of Ireland are qualified, or even trained, School Librarians a legislative requirement. School inspections and standards do necessitate a school library. Many schools do have qualified staff due to local authority input and progressive Head teachers. Special initiatives may result in qualified librarians in schools, such as the Republic of Ireland's special project for STATE (VEC run) disadvantaged schools has 11 schools a further 40 being phased in over a period of time, where full time qualified librarians have been provided. ...Standards for school library services in Scotland" published in 1999, recommended that all secondary schools should have the full time services of a Chartered or qualified librarian. Finance is one of the overriding factors in the provision of qualified librarians.

Usher goes on to describe specialist training for school librarians. Aberystwyth and Sheffield Universities in the UK offer modules, which are increasingly popular, that deal with children's and school librarianship and children's literature. In the Rep. of Ireland there is also a short module in a diploma course dealing with school librarianship. There is also a new day release course at the University of Ulster. Those who become school librarians often pursue training themselves on the job. There are a number of organisations that offer training on a variety of subjects. Both CILIP: School Libraries Group and the School Library Association hold weekend schools. Regional Branches of the SLA, CILIP: SLG and CILIP: Youth Libraries Group offer Day Schools of interest to school librarians and the SLA has an extensive and excellent publications programme. CILIP also publishes books relevant to school librarianship and makes representations at Government level on matters relating to school librarians. In the Republic of Ireland the SLARI offers 2 seminars a year, which include practical sessions. There have also been some summer courses in school librarianship from the Church of Ireland College of Education. From next year University College Dublin will be including a new module on school libraries in the syllabus for the Diploma in Library and Information Studies.

Usher then goes on to describe promotional activities which have been mentioned above (IASL, 2007).

'On the whole Primary Schools (children under 11) have a teacher in charge of the Library; in Secondary Schools (children up to 18) there is usually a Librarian. This age structure does vary around the UK. In the UK, in many counties, schools buy into their Local Authority's School Library Service, which provides loan collections, special project collections, professional advice and, sometimes, training for schools. However, some local authorities are shutting their SLS's'.

Tarter. (2007) states that in England there is at present no statutory requirement for schools to have a qualified librarian or even a library. She then describes some initiatives for the teaching of information literacy skills to pupils. The quality of pupils' information literacy skills [in many of the schools visited] was often unsatisfactory. Many pupils struggled to locate and to make use of information. The most effective schools had put in place systematic programmes for teaching these skills. While there are some very exciting developments in information literacy (IL) happening in schools, these are due to the work of

individual librarians rather than any national educational imperative. For although there are elements of IL embedded in the English National Curriculum, there is no official recognition of IL as a unique set of skills to be developed in any systematic way. However, this may be about to change.

Tarter refers to the OFSTED report (2006) which mentioned that the most beneficial IL programmes were those that attempted to develop the skills in a variety of curricular contexts and progressively over time. This official recognition of the value of IL skills development in individual schools by OFSTED may lead eventually to a more national acceptance of IL as part of the curriculum.”

Lonsdale (2007) describes inter-library co-operation, in order to attempt to train secondary school pupils in information literacy skills. *Since 2002, he has been “exploring the nature of collaborations that are taking place between secondary schools and universities in the UK regarding the provision of information literacy skilling relating to the use of electronic resources. The project, which is known as CrossEd, was the first of its kind in the UK, and explored an aspect of information literacy development which has received little attention internationally – namely, how teachers and school librarians might work with university librarians to help prepare young people to exploit electronic resources when they move into post-16 education (tertiary education)”*. The paper goes on to describe the results were as follows:

“There was an overwhelming positive response to the benefits of collaboration. University librarians’ responses can be summarised into the following groups:

Influencing work in school

- *enhancing performance in the school*
- *encounter teaching and learning methods adopted in tertiary education*
- *expose students to large electronic resources of the university sector.*

Conditioning for transition to tertiary education

- *encouraging pupils into tertiary education*
- *easing the psychological stress of moving from secondary education to tertiary education*
- *improving public relations.*

Influencing work in university

- *pupils entering tertiary education would be offered a more level playing field if some instruction were done in school*
- *facilitating greater and more appropriate use of e-resources in undergraduate and postgraduate education.*

A major issue that we identified is the need for school and university librarians to develop a closer rapport, since there was considerable and demonstrable ignorance of each others’ work and of collaborative initiatives – something that we will explore further with the School Library Association.”

In December 2009, a petition was presented to the office of the Prime Minister of the UK, petitioning the Prime Minister to make school libraries statutory. The petition had 5,707 signatures. On 22 January 2010, the government responded that while school libraries are key resources for pupils and teachers, and support the National Curriculum by providing books and ICT equipment, and at their best are a valuable asset to teachers and a source of enjoyment and learning for children and young people, the provision of a school library is not a statutory requirements, and there are no current plans to alter this and change the legislation. <http://www.number10.gov.uk/Page 22227> Accessed on 28 March 2010.

On 15 February 2010 the School Library Association (SLA) published its new Primary School Library Charter. The charter has been prepared to help primary headteachers and governors set up and run a school library or increase the contribution that their current library makes to the school’s effectiveness and the pupils’ wellbeing and learning. www.sla.org.uk/primary-charter

In March 2010, CILIP (the Chartered Institute of Library and Information Professionals, published a Library and Information Manifesto which contains six priorities, one of which is statutory school libraries throughout the U.K. A detailed supporting paper gives details of the background to this request.

Three European projects have brought wide experience and developed expertise with regard to the use of the school library and information centre (multimediacentre) as an effective educational tool in the

information age. The first project was known as the SLAM (School Libraries as Multimediacentres) (2000) and received funding from the European Union in 2000. There were four partners from the Czech Republic, Denmark, the U.K (St. Vincent College, Gosport and Brune Park School, Fareham, UK) and Norway. The second project, an extension of the SLAM project, was known as GrandSLAM (2002). This project had 8 partners from Czech Republic, Lithuania, Ireland, Denmark, Norway, Portugal, Spain and the UK. The third project, an extension of the SLAM and GrandSlam project is known as the SLAMIT project (2006). These three projects have brought wide experience and developed expertise with regard to the use of the school library and information centre (multimediacentre) as an effective educational tool in the information age.

The referenced document is a Powerpoint presentation which Dr. Judith Preston, Lecturer at the University of Wales, made at the International Round Table on Education for Information Literacy “*Competencies and curriculum for information literacy*” Milano, 16 March 2007 (Preston, 2007).

After this research was finalised, information was received that the School Library Association has referred to an document which enables individual schools to evaluate their own school library. This document has also been revised and translated into Portuguese, for use in Portuguese school libraries.

The MLA (Museums, Libraries and Archives) is developing an Action Plan for Libraries. One of its activities is the development of a toolkit for gathering evidence of learning outcomes. The toolkit will enable school librarians to gather evidence of learning by

- analysing existing data,
- improving existing tools and generate and analyse more focused data,
- designing new tools and new methods of generating and analysing data.

See <http://www.schoollibrariesadvocacy.org.uk/toolkit/background.asp> Accessed on 15 May, 2009.

Further information about school libraries in the U.K. is available at:

Senior Children’s and Education Librarians (ASCEL) <http://www.ascel.org.uk>

Chartered Institute of Library and Information Professionals (CILIP) <http://www.cilip.org.uk>

Museums, Libraries and Archives Council (MLA) <http://www.mla.gov.uk>

The National Reading Campaign www.readon.org.uk

The Reading Agency www.readingagency.org.uk

School Library Association (SLA) www.sla.org.uk

Specific References: United Kingdom (England)

CILIP, 2003. *School Libraries – Making a Difference*.

<http://www.schoollibrariesadvocacy.org.uk/welcome.asp> Accessed on 21 November 2008.

CILIP (Chartered Institute for Library and Information Professionals), 2008.

<http://www.cilip.org.uk/specialinterestgroups/bysubject/school/> Accessed on 24 November 2008.

CILIP (Chartered Institute for Library and Information Professionals), 2010 *Library and Information Manifesto 2010 – Six Priorities*. www.cilip.org.uk/manifesto Accessed on 28 March 2010.

CLYDE, L. (1981). *The Magic Casements: A survey of school library history from the eight to the twentieth century*. Thesis submitted for the degree of Doctor of Philosophy in the Department of History. Townsville, QLD. : James Cook University.

GrandSLAM Project 2002. <http://www.gslam.net/images/GrandSlam.proposal.pdf> Accessed on 2 September 2008.

HERRING, James. 2004 *James Herring’s PLUS Model*. <http://fflasblog.wordpress.com/category/uk/> . Accessed on 21 November 2008.

IASL (International Association of School Librarianship, 2007. *Assembly of Associations Communique 2008. Country: United Kingdom*. The 2007 IASL Conference, Taipei, Taiwan.

<http://www.iasl-online.org/members/communique/assofass2007a.htm> Accessed on 21 Aug. 2008

LISU, Loughborough University, Department of Information Science. *A survey of library services to Schools and Children in the UK 2005-2006, Section 4 School Library Services*.

<http://www.lboro.ac.uk/departments/ls/lisu/pages/publications/sch-chil06.html> Accessed on 24 November 2008.

- LONSDALE, R. 2007. *CrossEd : How university libraries support information literacy in secondary skills*.
<http://iflasblog.wordpress.com/category/uk/> Accessed on 21 November 2008.
- OFCOM, 2008. *Ofcom Media Literacy Audit : report on media literacy amongst children*.
http://www.ofcom.org.uk/advice/media_literacy/medlitpub/medlitpubrss/ml_childrens08/ml_childrens08.pdf
Accessed on 21 November 2008.
- OFSTED (Office for standards in Education). 2006. *Good school libraries : Making a difference*.
<http://www.ofsted.gov.uk/Ofsted-home/Publications-and-research/Browse-all-by/Education/Leadership/Governance/Good-school-libraries-making-a-difference-to-learning> Accessed on 24 November 2008.
- PRESTON, J. 2007. *Thoughts on skills and competencies for information studies*.
<https://dspace-unipr.cilea.it/bitstream/1889/524/1/Broady-Preston.pdf> Accessed on 21 November 2008.
- RAY, C. (Editor). (1978). *Library Service to Children : An International Survey* / edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) .
- SLA (School Library Association) (20208) *Primary School Library Charter* <http://www.sla.org.uk/primary-charter>
Accessed on 28 March 2010.
- SLA (School Library Association) (2008) <http://www.sla.org.uk/> Accessed on 24 November 2008.
- SLA (School Library Association). *Ofsted report confirms that school libraries can have a positive impact on students' learning*. <http://www.sla.org.uk/blg-ofsted-report-confirms-that-effective.php> Accessed on 23 November 2008.
- SLAM Project 2000. <http://www.karmoyped.no/slam/> Accessed on 2 September 2008.
- SLAMIT Project, 2006. <http://www.slamit.org/> Accessed on 2 September 2008.
- TARTER, Anne-Marie, 2007. *Creating Lifelong Learners : one school's use of IL in England*.
<http://iflasblog.wordpress.com/category/uk/> Accessed on 21 November 2008.
- USHER, Karen, 2007. *School libraries in the U.K. and the Republic of Ireland*.
<http://iflasblog.wordpress.com/category/uk/> Accessed on 21 November 2008.

Name of country: UK (Northern Ireland) / United Kingdom/Verenigd Koninkrijk – GB (UK)

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Information about school libraries in Northern Ireland is often included in information about the entire United Kingdom. However any statistics and reports, which are relevant to this study and which refer to Northern Ireland as a separate country will be included in this report: UK (Northern Ireland). Other information can be found in the report: United Kingdom (UK) – entire country.

Specific conclusions – United Kingdom (Northern Ireland)

1	Population ranking:	Population recorded as 1,775,000 however a ranking was not calculated for Northern Ireland as a separate country.
2	GNI ranking per capita	Unknown for Northern Ireland as a separate country.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	Unknown for Northern Ireland as a separate country.
4	Adult literacy	Unknown for Northern Ireland as a separate country.
5	Compulsory education	12 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Unknown for Northern Ireland as a separate country.
9	PIRLS score	Unknown for Northern Ireland as a separate country.
10	Statistics of use of ICT in schools	Unknown for Northern Ireland as a separate country.
11	ICT in the school library 2006	49% in 2006
12	ICT policy in schools	European Schoolnet, Country – Northern Ireland 2008 and Country – U.K. 2008.
13	Media literacy	See European Commission 2007 and also comments below.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 – information on school libraries has been queried.
15	LibEcon Millennium Study 2000	Yes
16	School libraries and information centres	
16a	Singh survey 1993	Yes
16b	Returned ENSIL surveys	Yes
16c	Number of school libraries	Unclear. In the 2004 ENSIL survey, the SLA reports 2,058 secondary school libraries. No figures from IFLA/FAIFE 2007.
16d	National school library law	No
16e	National school library association	Yes, plus a special interest group for school libraries at national level.
16f	National survey of school libraries	Partial survey – not all schools took part.
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	81-100%

On 29 May, 2008 the Northern Ireland Executive announced that the Libraries Bill had passed the Final Stage in the Assembly. The Libraries Act (Northern Ireland) was officially published in June 2008. *‘It establishes a new body, the Library Authority, and transfers to it the responsibility for delivering and managing a unified library service for all Northern Ireland’*

There is positive news from Northern Ireland with regard to school libraries. A review of the information which appears above shows that the government of Northern Ireland appreciates the value of school librarianship in educational achievement. They are trying to take positive steps to provide quality school libraries, run by qualified staff, for all pupils.

The researcher will be most interested to see the Education Act, which is being proposed by the Minister of Education, Caitriona Ruane. The Bill is expected to be presented in 2009. If the expectations are confirmed, then this Bill and eventually Act will provide Northern Ireland with a School Library Law.

School Libraries in Northern Ireland are represented by the School Library Association (SLA) Northern Ireland Branch . <http://www.sla.org.uk/branch-northern-ireland.php> . Representation by the school libraries section of the Chartered Institute of Library and Information Professionals (CILIP), is unclear.

The Belfast Education and Library Board (2003) '*provides a library service for everyone who lives, works, attends school or undertakes courses or study within the area*'. The following statement is made on the referenced Homepage:

"Research on school libraries published.

School libraries need more and better-trained staff, more and better accommodation and more and better resources if they are to achieve their full potential in supporting learning in the school. These are the main findings of research commissioned by the Association of Chief Librarians and funded by the Department of Education".

Starrs (2002) provides a report of a project which *was funded by DENI and was intended to investigate the role that school libraries could and do play in supporting pupils' learning. It grew out of concerns that not all were maximising their contribution to the educational process. The current emphases on self-directed learning and the development of information handling skills provide increased opportunities for a school library to play a major part in the learning process. It was perceived that not all school libraries were in a position to fully realise this opportunity.*" The aims of the study were to '*investigate the actual and potential school library contribution, identify the conditions necessary for that contribution to be realised and the factors that were preventing it from taking place*'. The project concluded that '*there was a wide disparity in the standard of library provision in Northern Ireland schools, chiefly because of **the lack of an explicitly stated role in the curriculum**. Library development and use was largely at the discretion of the individual school and many could not, or did not, fund or staff their libraries sufficiently to allow pupils to realise the learning opportunities that a properly resourced and staffed school library could provide*'

These important conclusions agree with many conclusions which have been reached in other countries in this study. Recommendations for improvement were announced on the website of the Belfast Education and Library Board, but at the time of writing, these have not been published. The researcher wrote to the Belfast Education and Library Board and asked them when these recommendations can be expected but a reply has not been received. Also of interest – this report gives definitions and explanations of terms. These definitions are very valuable to this research, since they give a clear explanation of what schools and the education community mean when they speak about school libraries and school librarians.

The referenced website records a debate of the All Northern Ireland Assembly which was held on 17 June 2008. The Minister of Education was asked '*what action she is taking to ensure that the proposed single education authority will have formal ties to the new library authority*'. Caitriona Ruane replied that she will introduce an Education Bill which would place a duty on the ESA to make library services available in grant-aided schools ... In addition, the Department of Education is developing a new school library policy that will issue for consultation (by the Parliament) in early 2009.

"The Department provides over £3 million annually in support of school libraries, in recognition that the school library is the heart of the school. This school library empowers learners to achieve their full potential and is integral to the success of the school and its pupils. ... The school library policy will enable school libraries to fulfil their potential by empowering learners to succeed. ..."

In 2005 the Department of Education, Northern Ireland. Education and Training Inspectorate (2005) published a report on the provision and use of the school library. The definitions which were used for a school library were not those which have been used in this dissertation (IFLA/UNESCO 1999 and IFLA/UNESCO, 2002).

SELB (Southern Education and Library Board of Northern Ireland) (2008) gives detailed information about the use of ICT in school libraries. In answer to the following question: Why ICT in the School Library?”, it gives the following answer:

The school’s ET development plan should ... give particular focus to the position of the library and the library staff as providing the hub of the information network within the school. The report of the Education Technology Strategy Management Group (2002) has shown that *where ICT has been provided in the school library*

- *independent learning was fostered*
- *individual learners were motivated to higher levels of achievement*
- *staff learned alongside students*
- *learners with reading difficulties were motivated by interesting information presented in an imaginative way*
- *students gained access to sources of information well beyond the normal capacity of the school or college*
- *multi-media helped learners understand difficult concepts*
- *skills were transferred from ICT to other subjects*
- *collaboration had a positive impact on interpersonal skills*
- *critical skills and visual literacy were enhanced.”*
- The section on the report which refers to Training Needs states the following:

The section on the report which refers to Teachers’ Needs states the following:

“These will include:

- *training in basic IT skills, search techniques and multi-media authoring*
- *hands-on experience to develop their own competence and confidence*
- *to be kept informed/aware of hardware and software available to them*
- *to be familiar with the scope and coverage of the information sources for pupils*
- *technical support”*

The section on the report which refers to Training Needs states the following:

“All library staff need

- *training in basic IT skills and search techniques*
- *time for hands on experience to develop competence and confidence*
- *opportunities and time to attend external courses, school-based courses, distance learning courses and/or peer support training*
- *access to competence-based ICT certification training*

Teacher librarians and qualified librarians need additional training in

- *multi-media authoring*
- *developing information handling programmes to include ICT*

Technical Support

School library staff need to work in partnership with ICT co-ordinators and technicians to ensure:

- *a coherent approach to ICT developments throughout the school*
- *technical support is available to underpin the effective use of the new technologies e.g. installation of equipment, troubleshooting, maintenance, help lines and practical support with group training sessions*

According to Usher (2007), the University of Ulster has a new course for School Librarians that is a day release course.

Specific references : Northern Ireland.

- ALL Northern Ireland Assembly debates on 17 June 2008.
<http://www.theyworkforyou.com/ni/?id=2008-06-17.6.13> Accessed on 25 August 2008.
- BELFAST EDUCATION & LIBRARY BOARD, 2003. <http://www.belb.org.uk/Libraries/> Accessed on 25 August 2008.
- EDUCATION TECHNOLOGY STRATEGY MANAGEMENT GROUP. 2002. *A strategy for Education Technology in Northern Ireland*. 23rd September 2002. Belfast : Education Technology Strategy Management Group,
- EUROPEAN SCHOOLNET, 2008. Country report: Northern Ireland
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm Accessed on 24 August 2008.
- EUROPEAN SCHOOLNET, 2008. Country: United Kingdom.
http://www.europeanschoolnet.org/ww/en/pub/eun/network/united_kingdom.htm Accessed on 25 August 2008.
- IFLA/UNESCO (1999). *School Library Manifesto : The School Library in Teaching and Learning for All*. The Hague : IFLANET. International Federation of Library Associations and Institutions.
<http://www.ifla.org/en/publications/ifaunesco-school-library-manifesto-1999> Accessed on 14 May 2009.
- IFLA/UNESCO (2002). *School Library Guidelines* The Hague : IFLANET. International Federation of Library Associations and Institutions. <http://www.ifla.org/en/publications/the-ifaunesco-school-library-guidelines-2002> Accessed on 14 May 2009.
- NENI (Department of Education, Northern Ireland. Education and Training Inspectorate) (2005) . Report of a Survey of The Provision and Use of the School Library in a Sample of Primary and Post-Primary, Inspected 2004-2005.
http://www.etini.gov.uk/provision_and_use_of_school_library_in_sample_of_primary_and_postprimary_schools-2.pdf Accessed on 28 March 2010
- NISRA (Northern Ireland Statistics and Research Agency, 2006. <http://www.nisra.gov.uk/demography/default.asp3.htm>
Accessed on 6 October 2008.
- NORTHERN IRELAND EXECUTIVE, 2008. *News Releases, Department of Culture, Arts and Leisure*. 29 May 2008
<http://www.northernireland.gov.uk/news/news-dcal/news-dcal-may-2008/news-dcal-290508-new-era-for.htm>
Accessed on 8 October 2008.
- SELB (Southern Education and Library Board of Northern Ireland) : *School Library Guidelines : Supplement for ICT in School Libraries*. <http://www.selb.org/library/liscdocs/guideict.htm> Accessed on 8 October 2008.
- STARRS, JANE. 2002. *School Libraries in Northern Ireland: An Investigation into Their Current and Potential Contribution to Learning : A Report on research conducted for the Association of Chief Librarians, Northern Ireland*. August 2002.
- USHER, Karen, 2007. *School libraries in the U.K. and the Republic of Ireland*.
<http://iflasblog.wordpress.com/category/uk/> Accessed on 21 November 2008.

Name of country: UK (Scotland) / United Kingdom/Verenigd Koninkrijk – GB (UK)**Indicators which are relevant to this study.**

- Member of the Council of Europe
- Member of the European Union (EU)

Information about school libraries in Scotland is often included in information about the entire United Kingdom, however some statistics and reports, which are relevant to this study, refer to Scotland as a separate country. For this reason, a separate report has been made on Scotland, which contains information which is relevant to Scotland. Other information can be found in the report: United Kingdom (UK) – entire country.

Specific conclusions – United Kingdom (Scotland)

1	Population ranking:	Population recorded as 5,168,000 however a ranking was not calculated for Scotland as a separate country.
2	GNI ranking per capita	Unknown for Scotland as a separate country.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	Unknown for Scotland as a separate country.
4	Adult literacy	Unknown for Scotland as a separate country.
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Unknown for Scotland as a separate country.
9	PIRLS score	Rank in Europe in 2001 was 11. Rank in Europe in 2006 was 16.
10	Statistics of use of ICT in schools	Unknown for Scotland as a separate country.
11	ICT in the school library 2006	49% in 2006
12	ICT policy in schools	European Schoolnet, Country – Northern Ireland 2008 and Country – U.K. 2008.
13	Media literacy	See European Commission 2007 and also comments below.
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007 – information on school libraries has been queried.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Yes, as a separate country.
16c	Number of school libraries	Unclear
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	No
16g	Training of teacher librarians	See below
16h	School libraries with internet access to users	Unknown for Scotland as a separate country.

Specific conclusions – Scotland.

All teachers in a publicly funded primary or secondary school in Scotland are required to hold a Teaching Qualification (TQ) in order to be registered as teachers in Scotland. Newly qualified teachers have access to a training post for one school year immediately following qualification. Full registration follows a period of probation and assessment which generally lasts one year. Most secondary teachers enter the teaching profession after taking a university degree and then completing the Post-Graduate Certificate in Education. A few enter through the Bachelor of Education (B.Ed.) degree (see referenced document). Teachers are not civil servants but are employed by the local authorities.

It should be noted that Scotland's score in the PIRLS 2006 score was less than its score in the 2001 test. Also, its ranking in Europe was lower, however this is partly due to the fact that more European countries took part in the PIRLS testing 2006. Even though Scotland scored above the norm, it scored lower than England.

Scotland did not return the IFLA/FAIFE World Report as a separate country.

School libraries in Scotland UK are represented by two separate institutions: the Chartered Institute of Library and Information Professionals (CILIP Scotland), and the Scottish branch of the the School Library Association (SLA) .

Scotland returned information as a separate country to the first ENSIL survey in 2004 and provided valuable information about school libraries in Scotland. The questionnaire was returned by the Highland Council.

ENSIL (2008) reported that there was a Scottish petition for information literacy. This petition for Information Literacy was raised to the Scottish Parliament by by Dr. John C. Crawford on 26 October 2005 . The petition stated the following:

"Petition by Dr John Crawford, calling on the Scottish Parliament, to urge the Scottish Executive to ensure that the national school curriculum recognizes the importance of information literacy as a key lifelong learning skill".

On 15 November 2006 , the Public Petitions Committee agreed, on the basis of responses received from the Scottish Executive, HM Inspectorate of Education, the Educational Institute of Scotland and the Scottish Qualifications Agency, to close consideration of this petition

The Scottish Parliament has expressed and confirmed their interest in the quality of education in Scotland. Active research is taking place on this subject. The Parliament has commissioned various reports regarding the quality of education and the introduction of information literacy skills into schools in Scotland. Some of these reports express particularly interesting opinions and returned data to support these ideas. They are mentioned specifically, and in detail, in this dissertation (Williams, 1999), Williams & Wavell, 2001, 2006).

In the opinion of this researcher, school libraries in Scotland and the teaching of information literacy skills to teachers and pupils have been strongly influenced by attitudes from the UK as a whole. However, because of the studies which have been done in Scotland, it is possible that Scotland may develop their own standards.

Close links between the Public Libraries, School Library Service and school libraries in Scotland and the UK sometimes make comparisons with school library service in other countries in Europe difficult.

Specific references – Scotland.

ENSIL Foundation (European Network for School Libraries and Information Literacy) (2008). www.ensil.eu Accessed on 24 May 2008 and www.ensil-online.org Accessed on 2 February 2010.

WILLIAMS, D, WILSON, K., RICHARDSON, A., TUSON, J and COLES, L.. (1998). *Teachers' ICT skills and knowledge needs : Final Report to SOEID.* Aberdeen, Scotland : Department of Information Management, Aberdeen Business School, The Robert Gordon University. <http://www.scotland.gov.uk/library/ict/append-title.htm> Accessed on 17 January 2009.

WILLIAMS, D and WAVELL, C. (2001). *The impact of the school library resource centre on learning.* Library and Information Commission Research Report 112. Aberdeen : The Robert Gordon University.

WILLIAMS, D. and WAVELL, C. (2006). *Information literacy in the classroom : secondary school teachers' conceptions.* Aberdeen, Scotland : Department of Information Management, Aberdeen Business School, The Robert Gordon University.

Name of country: UK (Wales) / United Kingdom/Verenigd Koninkrijk – GB (UK)

Indicators which are relevant to this study.

- Member of the Council of Europe
- Member of the European Union (EU)

Specific conclusions – United Kingdom (Wales)

1	Population ranking:	Population recorded as approx. 3,000, 000 however a ranking was not calculated for Wales as a separate country.
2	GNI ranking per capita	Unknown for Wales as a separate country.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	Unknown for Wales as a separate country.
4	Adult literacy	Unknown for Wales as a separate country.
5	Compulsory education	11 years
6	Primary school and secondary school enrolment	100%
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Unknown for Wales as a separate country.
9	PIRLS score	Unknown for Wales as a separate country.
10	Statistics of use of ICT in schools	Unknown for Wales as a separate country.
11	ICT in the school library 2006	Unknown for Wales as a separate country.
12	ICT policy in schools	Unknown for Wales as a separate country.
13	Media literacy	Unknown for Wales as a separate country.
14	Libraries – general information	Did not returned IFLA/FAIFE World Report 2007 for Wales as a separate country.
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	Yes, as a separate country.
16c	Number of school libraries	Unclear
16d	National school library law	No
16e	National school library association	No
16f	National survey of school libraries	No
16g	Training of teacher librarians	Unclear
16h	School libraries with internet access to users	Unknown for Wales as a separate country.

Information about school libraries in Wales is often included in information about England and Wales (together) or as part of information about school libraries throughout the entire United Kingdom. No information could be found about school libraries in Wales, as a separate entity. A paper related to the management of independent secondary schools in England and Wales (Turner, 2007). This article will be discussed on the UK (Eng.) part of this Appendix.

Statistical information is always needed about other countries for comparisons, eg about statutory school libraries, average spending on books, whether qualified librarians and / or teachers are compulsory or optional in school libraries etc. Co-ordinating such research or benchmarking would be a very useful thing for IASL to undertake.

The researcher sent a request was sent to the Welsh Assembly Government on 17 December 2009, requesting specific information about school librarianship in Wales. The request was passed on to Alyson Tyler, Libraries Development Adviser, CyMAL Museums Archives and Libraries Wales Welsh Assembly Government. On 7 January 2010, she sent a reply which contained the following information.

“CyMAL is the policy division of the Welsh Assembly Government that has responsibility for museum, archives and libraries in Wales. You can find out more about the current library strategy (Libraries for Life 2008-11) on our website at www.wales.gov.uk/cymal (or direct link to strategy is

at

<http://wales.gov.uk/topics/cultureandsport/museumsarchiveslibraries/cymal/welshlibraries/librariesforlife/?lang=en>).

The Department for Children, Education and LifeLong Learning and Skills (DCELLS) in the Welsh Assembly Government has responsibility for schools. I will forward a copy of my reply to you to a colleague in DCELLS in case they have additional information. Their website is at:

<http://wales.gov.uk/about/civilservice/departments/dcells/?jsessionid=JphWLFqRrSCJdnnfcg9LqZ1x92BZW2TXJQ1khZ7Lcs1t6Rsv2k2m!-689210129?lang=en>

There is no specific policy regarding school libraries in Wales. You have been in touch with CILIP so will know that they are leading a campaign to make school libraries a compulsory service that schools should offer across the UK. As schools do not have to provide a library there are schools (primary and secondary) in Wales where there is no library.

Some information you may find useful which relates to Wales includes the Estyn position statement on school libraries (ESTYN, 2002b)

You may be aware that CILIP - Schools Group are currently conducting a survey of provision across the UK. See

<http://www.cilip.org.uk/get-involved/special-interest-groups/school/Pages/default.aspx>

Their previous survey (2002) of secondary schools included Wales. See:

<http://www.cilip.org.uk/get-involved/special-interest-groups/youth/publications/children/Pages/secondaryschoollibraries.aspx>

CyMAL produced a publication on best practice in primary schools: 'Primary School Library: Impacting on Learning' (the research has now received a copy of this report).

The researcher asked Ms. Tyler to send this document. Since the information which was supplied above was somewhat dated, she also asked some additional questions, as follows:

Question:

Does CyMAL have a definition of what a school library in Wales actually is and what its purpose is within the school?

Answer:

CyMAL does not have its own definition of a school library. Rather than reinvent the wheel we follow CILIP and the School Library Association statements. See: <http://www.sla.org.uk/pol-school-library-purpose.php>. Our 2005 report used the Library Association (2000) Primary School Library Guidelines as reference.

The researcher does not believe that this definition meets the definitions used in this research (IFLA/UNESCO 1999 and IFLA/UNESCO 2002) and may include 'other school libraries'. The definition which has been supplied does not describe the role which school libraries now play in the educational process, where the trained school librarian (who is also a trained teacher) works together with teachers across the curriculum, in order to promote literacy (in traditional and new forms) and to teach children important media literacy skills.

Question:

Are there any specific statistics about the number of school libraries in Wales (using the headmaster's definition)? As I said, I have already been in touch with CILIP and will wait for the report after the new survey.

Answer:

I'm afraid we do not have specific statistics about the number of school libraries in Wales other than the CILIP survey in 2002 which also covered Wales. We await the new CILIP survey. I will enquire whether DCELLS have such data.

Tyler also referred to an Information Literacy conference which was held in Wales in December 2009. Approximately 40 librarians attended (including some school librarians). According to Tyler, 'Everyone agreed that literacy from school age up is vital. You can read about the conference and a couple of blogs about it here: <http://whelf.wordpress.com/2009/12/02/an-information-literacy-framework-for-wales-2/> which actually links to another blog which is more detailed. It was, I think, the first time so many librarians from all

different sectors had met to discuss information literacy and it was great to hear of all the good work that is being done in this area’.

The CyMAL website is www.wales.gov.uk/cymal. The direct link to the library strategy is: <http://wales.gov.uk/topics/cultureandsport/museumsarchiveslibraries/cymal/welshlibraries/librariesforlife/jseid=RS1dLHBTyhrpxd0vTzDp17jJKqv1ryc2SdB4r8t7nwdX08DSppGn!-689210129?lang=en>. The researcher has now received a copy of the bilingual report entitled *‘Primary School Library: Impacting on Learning’* which CyMAL produced in 2003 after a survey of primary school libraries in Wales had been carried out by its School Library Task Group of the Library and Information Services Council of Wales. The establishment of CyMAL as a policy division of the Welsh Assembly Government resulted in the transfer of LISC Wales’ responsibilities and functions on 1 April 2004. The report describes best practice in primary schools and supports the work of school librarianship in learning, however it is somewhat dated.

The following information about school libraries in Wales was received from a reliable source, however the writer wishes to remain anonymous in January 2010, as follows: The Welsh Assembly has responsibility for school libraries and public libraries, but Estyn, as the equivalent of Ofsted in Wales has responsibility for school libraries. In Wales, and also in the countries of the UK, public libraries are run under a different Ministry, so it is hard for politicians to join up the dots sometimes. They are funded differently and through different funding streams too.

The SLA (School Library Association) has 2 branches in Wales, South East and South West. These set themselves up, although they have to be constituted officially by SLA. There are no SLA members who want to set up branches in the North of Wales.

CILIP also works in Wales as Cymal, but, as in other countries of the UK, tends to focus on public libraries before any other sort, so it is sometimes left to its special interest groups to do work with local and national governments. I believe that the School Libraries Group of CILIP tried to establish a branch in Wales, but I’m not sure of its effectiveness. The SLA Welsh branches are not part of Cymal. This may explain why the Welsh Assembly knows little about school libraries.

The researcher has checked this information and is convinced of its accuracy. A search of the Estyn website revealed the 2002 inspection report mentioned above (ESTYN, 2002b). It also revealed an inspection of libraries in the County Borough of Caerphilly and the Caerphilly County Borough Council. These reports mention school libraries and the work of the school library service in this counties. Furthermore, a report on reading (ESTYN, 2008, p. 26) mentions the work of school libraries and resource centres. Other information on the ESTYN website was considered to be less relevant to this study.

However this information which has been reviewed on school libraries in Wales fails to mention a new vision for school libraries in the information society and the role of the school librarian as an information coach for the school community. Very little information is available about school libraries in secondary schools.

Specific References: Wales.

ESTYN (Her Majesty’s Inspectorate for Education and Training in Wales). (2002a) *Best Value Inspection Denbighshire County Borough Council : Schools Library Service*
http://www.estyn.gov.uk/inspection_reports/DenbighshireBV.pdf Accessed on 22 March 2010

ESTYN (Her Majesty’s Inspectorate for Education and Training in Wales). (2002b) *Position Paper on School Libraries and Learning Resource Centres in Primary and Secondary Schools in Wales 2002*
http://www.estyn.gov.uk/publications/Schools_libraries.pdf Accessed on 22 March 2010.

ESTYN (Her Majesty’s Inspectorate for Education and Training in Wales). (2003) *Best Value Inspection Caerphilly County Borough Council* http://www.estyn.gov.uk/inspection_reports/Caerphilly_Library_2003.pdf Accessed on 22 March 2010

ESTYN (Her Majesty’s Inspectorate for Education and Training in Wales). (2008) *Best practice in the reading and writing of pupils aged 7 to 14 years April 2008*, p. 26 School libraries and learning-resource centres ,
http://www.estyn.gov.uk/ThematicReports/0508_best_practice_in_the_reading_and_writing_of_pupils_aged_7_to_14_years_May2008.pdf Accessed on 22 March 2010.

TURNER, Richard, MATTHEWS, Graham, ASHCROFT, Linda and FARROW, Janet. 2007. *The management of independent secondary school libraries in England and Wales*. Journal of Librarianship and Information Science, Vol. 39, No. 4, 213-222 (2007).

Name of country: Ukraine - UA

Indicators which are relevant to this study.

- Member of the Council of Europe

Specific conclusions – Ukraine

1	Population ranking:	7 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 126 19.5% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey	European rank – 9 6.3% of GDP.
4	Adult literacy	99.4%
5	Compulsory education	12 years
6	Primary school and secondary school enrolment	NER (Net Enrolment Rates) of 85%. Not expected to meet the Millennium development goals for universal primary education (UPE) by 2015. UNESCO, 2008.
7	School attendance of children from minority groups	See COE, 2006
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Returned IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No
16c	Number of school libraries	20,600
16d	National school library law	Unknown
16e	National school library association	Yes
16f	National survey of school libraries	No
16g	Training of teacher librarians	Unclear
16h	School libraries with internet access to users	Less than 20%

The Ukraine is a poor country with a large population. The population ranking is number 7 when compared to the 54 (entire) countries taking part in this report (see Tabel 11).

It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research.

UNICEF (2008) reports that the Ukraine's government has made commitments to children's rights, but spending on social services remains limited, in part because of the struggling economy. The nation's Soviet-era infrastructure has deteriorated, but a new system has not yet taken its place. Two-thirds of the population lives in rural areas, where poverty is widespread.

The World Bank has reported that the Ukraine spends 6.39 of the GDP on education. This means that it ranks 9th in this study in education expenditure.

Some information above, which describes the Education system in the Ukraine in the English language, may or may not be reliable.

The Russian Federation, Turkey and Ukraine have the largest numbers of children who do not attend primary school, with more than 300,000 each (UNESCO, 2008).

The education system in the Ukraine is going through a period of substantial reform, thanks to support from the World Bank (2005, 2006, 2008a and 2008b). Descriptions of this project provide some information about the introduction of ICT into schools in the Ukraine.

Although the Ukraine is taking all kinds of initiatives to improve education, it is not certain that this country will achieve the Millennium goals for NER (National Enrolment Rate) by 2015 (UNESCO, 2008)

The Ministry of Education of the Ukraine (2008) has a website in English which gives information about education in the Ukraine. There is no mention of school libraries in this document.

The Embassy of the Ukraine in the Kingdom of the Netherlands (2008) describes the system of education in the Ukraine. It provides a somewhat slanted picture of schools in the Ukraine which may need to be confirmed by other sources.

IFLA/FAIFE (2000) contained information about libraries in the Ukraine (Last updated on 1 June 1999), as follows:

- *At the time that this report was written, there were 45,000 libraries in Ukraine, which employed 80,000 librarians.*
- *The economic instability of the country has meant that the government has not had appropriate funding for libraries.*
- *The collections of libraries in general (not just school libraries) became outdated.*
- *The number of libraries in the country, especially public libraries, was steadily decreasing.*
- *At the time that this report was written, education and training of librarians was carried out at 2 universities - in Kyiv and Kharkiv – and also at the Pedagogical University. Serious attempts are made to bring these studies to the appropriate international level.*
- The first library associations were founded in Ukraine at the beginning of 20th century. The Association strives to achieve and maintain high standards in providing library and information services and educating librarians.

The Ukraine has reported a very large number of school libraries (20,600). Very little is known about the conditions in the average school library.

The IFLA/FAIFE World Report, 2007 reports that Internet penetration is fairly low, with 11.5% of the population being Internet users. Internet access is free of charge in school libraries. Local authorities have made extra funding available to improve Internet access in the last two years. Very little local content is available on the Internet. Very little Internet content is available in local languages.

The following information was provided by Ms Tatyana Yarovaya, Chief Librarian of the Slavution Secondary School #1, Ukraine on 1 December 2007.

- There is a job description which was prepared at national level which described the work carried out by the school librarian or teacher librarian. It is dated 14 May 1999. It is recognized at governmental level.
- There has been no national survey of school libraries in the Ukraine.
- The Ukraine now has a school library association, which is known as the Slavutich School Library Association.

In an E-mail dated 3 November 2007, Ms Yarovaya explained that it must be difficult to find information about Ukrainian school libraries in the English language, since not many Ukrainian school librarians speak English.

In December 2007, the ENSIL 2004 and ENSIL 2007 surveys were completed and returned by this association.

An enthusiastic school librarian from a secondary school library took part in the International School Library Day and provided the IASL with information about the festivities which took part at her school.

Ukraine now has an enthusiastic National School Library Association.

References: Ukraine

- CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-worl-factbook/index.html>
- COE (Council of Europe), ECRI. 2006
http://www.coe.int/t/e/human_rights/ecri/1-ecri/2-country-by-country_approach/Ukraine/ Accessed on 18 August 2008.
- EMBASSY OF THE UKRAINE in the Kingdom of the Netherlands.
http://www.oekraine.com/core/edu_e.htm Accessed on 6 September 2008.
- IFLA/FAIFE World Report 2000 : *Libraries and Intellectual Freedom*. Country: Ukraine.
<http://www.ifla.org/faife/report/ukraine.htm> Accessed on 14 August 2008.
- IFLA/FAIFE World Report, 2007. http://www.ifla.org/faife/report/ifla-faife_world_report_2007-reports.htm Ukraine
Accessed on 9 June 2008.
- Internet World Stats. <http://www.internetworldstats.com/europa2.htm> Accessed 1 August 2008.
- MINISTRY OF EDUCATION, Ukraine
http://www.education.gov.ua/pls/edu/docs/common/education_eng.html Accessed on 6 Sept. 2008.
- UNDP (United National Development Programme, 2008b. *Human Development report 2007/2008*.
http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf Accessed on 28 August 2008
- UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008
- UNESCO. United Nations Educational, Scientific and Cultural Organisation , 2008. Education for All (EFA) Global Monitoring Report. Paris : UNESCO. <http://unesdoc.unesco.org/images/0015/001547/154743e.pdf>
Accessed on 4 November 2008.
- UNICEF. United Nations Children's Fund, 2008. <http://www.unicef.org/infobycountry/ukraine.html> Accessed on 4 May 2008
- WORLD BANK , 2005. *Ukraine : World Bank support education reform*.
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/UKRAINEEXTN/0,,contentMDK:20514264~menuPK:328539~pagePK:141137~piPK:141127~theSitePK:328533,00.html>
Accessed on 10 September 2008.
- WORLD BANK 2006 *World Bank to support Ukraine's Education System Reform with the \$86,59 mln loan for the Equal Access to Quality Education in Ukraine Project*
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/UKRAINEEXTN/0,,contentMDK:20900108~menuPK:328553~pagePK:141137~piPK:141127~theSitePK:328533,00.html> Accessed on 10 September 2008.
- WORLD BANK, 2008a. *Strategic Choices for Education Reform: Description*
<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/WBIPROGRAMS/EDUCATIONLP/0,,contentMDK:20275629~menuPK:460926~pagePK:64156158~piPK:64152884~theSitePK:460909,00.html> Accessed on 10 September 2008.
- WORLD BANK, 2008b. Education Policy Reform: Regional Responses to Global Challenges, ECA Region
<http://web.worldbank.org/WBSITE/EXTERNAL/WBI/WBIPROGRAMS/EDUCATIONLP/0,,contentMDK:20275629~menuPK:460926~pagePK:64156158~piPK:64152884~theSitePK:460909,00.html> Accessed on 10 September 2008
- WORLD BANK (2008c)
<http://web.worldbank.org/external/projects/main?pagePK=64312881&piPK=64302848&theSitePK=40941&Projectid=P077738> Accessed on 6 September 2008.
- WORLD BANK. 2008d. *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008.
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008
- WORLD BANK (2008e)
http://siteresources.worldbank.org/EXTECAREGTOPEDUCATION/Resources/444607-1192636551820/4293995-1193243530233/CP_Ukraine_revised_2.pdf Accessed on 10 Sept. 2008.
- WORLD BANK DDP Data query <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport>
Accessed on 6 September 2008.

Name of country: Uzbekistan - UZ

Indicators which are relevant to this study.

Note:

Although Uzbekistan may be considered to be located outside Europe (Central Asia), it was a member of the former USSR, and was included in some UNICEF and UNESCO studies and reports which provided information about Europe and Central Asia. These studies are relevant to this research and for this reason, Uzbekistan has been included in this study.

Specific conclusions – Uzbekistan

1	Population ranking:	10 from 54 (entire) countries in this survey
2	GNI ranking per capita	GNI World Rank – 171 27.5% of population below national poverty line.
3	Expenditure on education - % of GDP is known for 48 countries which are part of this survey. Figure from 1991 – unreliable.	European rank – 1 9.4% of GDP.
4	Adult literacy	99.4%
5	Compulsory education	9 years
6	Primary school and secondary school enrolment	Information unavailable – scores low in the past.
7	School attendance of children from minority groups	Unknown
8	PISA score	Did not take part in testing
9	PIRLS score	Did not take part in testing
10	Statistics of use of ICT in schools	Did not take part in EMPIRICA study
11	ICT in the school library 2006	Did not take part in EMPIRICA study
12	ICT policy in schools	European Schoolnet report unavailable
13	Media literacy	Did not take part in EU study
14	Libraries – general information	Uzbekistan did not take part in the IFLA/FAIFE World Report 2007
15	LibEcon Millennium Study 2000	No
16	School libraries and information centres	
16a	Singh survey 1993	No
16b	Returned ENSIL surveys	No. See Para 11a.
16c	Number of school libraries	9,500 – See Para 11a.
16d	National school library law	Yes
16e	National school library association	Closed – see Para 11a.
16f	National survey of school libraries	Unknown
16g	Training of teacher librarians	See Para 11a.
16h	School libraries with internet access to users	Less than 20%

Uzbekistan is one of the poorest countries in this survey.

It is a former member of the USSR, and for that reason has been included in this study.

It is not a member of the European Union, and for this reason, information is unavailable from many of the studies which have been used during this research. This is unfortunate, as it would be interesting to see whether the investment in educational reform, described above, has affected the educational statistics in a positive way.

It can be concluded that very little current information is available in the English language about schools in Uzbekistan

Until the end of the communist era, education in Uzbekistan followed the standard Soviet model.

According to Country Studies : Uzbekistan (2008), however it is possible that some of this information is dated. The report states that Uzbekistan has tried to develop a national education system but has encountered severe budgeting problems. The education law of 1992 tried to introduce reform, but the physical base has deteriorated and curriculum revision has been slow. Because of funding shortages, in

1993 the period of compulsory education was shortened from eleven to nine years. School buildings are in a poor state. Repair budgets are inadequate. There is concern about the nutrition of pupils – about 50% of students do not receive a hot meal each day. In 1992 about 5,300 of Uzbekistan's schools had double shifts. Most of these schools were rural; this means that approximately 25% of pupils were affected by this situation.

In the early 1990's, there was controversy about which language should be used for teaching in state schools. In 1992 Uzbek and the other Central Asian languages were made the official languages of instruction. This means that Uzbek schools may use any of the five Central Asian languages or Russian as their primary language (Country Studies : Uzbekistan, 2008),
Uzbek and Russian language courses are taught in all schools.

There was an increasing short supply of textbooks in Uzbek in many subjects.

The expansion of the curriculum to include courses in French, Arabic and English, has placed new stress on the limited supply of teachers and materials.

In the early 1990's, about 20,000 new teachers were trained annually for primary and secondary schools but experts do not consider these teachers to be adequately trained, to cope with curriculum changes and the need to teach in Uzbek.

In the early 1990's, the government made significant improvements in teachers' salaries and benefits.

Uzbekistan has already achieved the Millennium goals for NER (National Enrolment Rate). However UNESCO (2008) states that Information is missing from Uzbekistan and that it had relatively low ratios in the past.

The information which has been provided by the founder of the Uzbekistan Library Association and by the Asian Development Bank is vital to this study. It provides up-to-date information about the improvements which are taking place in the school system of this country, and also describes improvements in the use and development of school libraries. This information is very encouraging.

Uzbekistan did not take part in the IFLA/FAIFE World Report 2007.

UNICEF (2008) provided the following information: Despite the challenges of transition from the former Soviet Union, which are still confronting Uzbekistan, the country has been experiencing economic growth in recent years.

- *Unemployment rates for young people are high.*
- *About one-fifth of the population lives on less than \$1 a day.*
- *99.3% of the population is literate.*
- *Working with the Ministry of Public Education and other partners, UNICEF helped to strengthen primary education by supporting changes in curricula and teaching methods to make them more child-centres and skills-based.*

Dr. Marat Rakhmatullaev , a founder of the Uzbek Library Association and one of the most active promoters of library cooperation in Central Asia provided the following information by E-mail on 7 September 2008:

- There are around 13000 libraries in Uzbekistan: 9500 of these are school libraries.
- Every school has no less 1000 children
- Every school has a library.
- The libraries are run by a professional librarian.
- About 60% of schools have Internet facilities in special Internet classes(halls)
- Less than 20% of school libraries have Internet connections which children can use.
- There were around 20 library associations(Uzbekistan Library Association, 13 regional library associations and special library associations including the School Library Association but they closed for 2004-2006 after the Soros Foundation no longer supported them.

Dr. Rakhmatullaev goes on to say that *library reforms are taking place in Uzbekistan. School libraries are transforming to information library centers(ILC). The Asian Development Bank and Ministry of Public*

Education have a joint pilot project to support 1000 school libraries. The project includes the following positions:

- Computer providing
- Book providing
- Training more than 1200 librarians to work with PC, automated library systems and others.
- A guide is being developed for our librarians on modern library management,
- Trainings about the introduction of IT into libraries and to conduct the trainings.

School libraries really are in need of textbooks and other literatures. On average every library has no more 4000 - 5000 books. They should have no less than 20000 books for school with 1000 children.

Since 1997, the Asian Development Bank (2008) has provided seven loans for six projects in the education sector. In Uzbekistan. The referenced Internet link describes different projects in Uzbekistan:

UNDP (2008b) describes in detail the national development goal Nr. 2, part of the Millennium Development Goals, for Uzbekistan: "To improve the quality of primary and general secondary education while maintaining universal access". ... (see referenced document). The Main Challenges are

- lack of textbooks;
- high cost of textbooks;
- poor school facilities;
- low teacher salaries;
- lack of qualified teachers; and
- financial shortage in households.

References: Uzbekistan

ASIAN DEVELOPMENT BANK, 2008. *How ADB Is Helping the Poor in Uzbekistan – Education*
<http://www.adb.org/URM/projects/education.asp> Accessed on 7 September 2008

CIA World Factbook, 2007 edition. <https://www.cia.gov/library/publications/the-world-factbook/index.html>

COUNTRY STUDIES, Uzbekistan. 2008. .
<http://www.country-studies.com/Uzbekistan/education.html>. Accessed on 14 August 2008.

Internet World Stats. <http://www.internetworldstats.com/europa2.htm> Accessed 1 August 2008.

UNESCO. United Nations Educational, Scientific and Cultural Organisation , 2008. Education for All (EFA) Global Monitoring Report. Paris : UNESCO. <http://unesdoc.unesco.org/images/0015/001547/154743e.pdf>
Accessed on 4 November 2008.

UNDP (United National Development Programme, 2008a. *Human Development report 2007/2008*.
http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf Accessed on 28 August 2008

UNDP (United Nations Development Programme (2008b). *Millennium Development Goals*.
<http://www.undp.uz/en/mdgs/?goal=2> Accessed on 4 September 2008.

UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. Accessed on 31 October 2008

UNICEF. United Nations Children's Fund (2008a)
<http://www.unicef.org/infobycountry/uzbekistan.html> Accessed on 4 May 2008

UNICEF. United Nations Children's Fund (2008b) http://www.unicef.org/infobycountry/uzbekistan_background.html
Accessed on 4 May 2008

WORLD BANK DDP Data query <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport>
Accessed on 6 September 2008.

WORLD BANK. 2008a. *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008.
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>. Accessed on 1 August 2008.

Appendix IV : Data related to the European surveys.

	<u>Page:</u>
First ENSIL Survey, (2004)	2
Second ENSIL Survey, (2005)	33
Text : Third ENSIL Survey, 2007.	42
Comparison - ENSIL Surveys and the Singh survey.	47.

FIRST ENSIL SURVEY, 2004..

Text of first ENSIL Survey, 2004

European-wide ENSIL project

Questionnaire.

The role played by the school library and information centre and school librarians in the interdisciplinary introduction of information literacy programmes in secondary schools in Europe.

Introduction.

The introduction of computer technology in secondary schools has had an enormous impact on teaching methods. In the school library and information centre, pupils can individually search for information for a project, using both traditional methods and also information technology.

Information literacy has become a very important issue within secondary schools all over Europe. The amount of information which is now available through both traditional methods and multimedia is enormous. Pupils need to be taught to search for accurate information, to select information, to use it to answer the questions which have been asked and to provide an accurate summary of the resources which have been used. The concept of individual learning is encouraged.

While most classroom teachers have received training and have become competent in using information (traditional and multimedia) in their own subject field, their knowledge is not interdisciplinary. Pupils need to learn information skills which can be applied to many different subject areas. These skills can be used in their further education and are also important within the concept of lifelong learning. These interdisciplinary skills need to be taught by an information specialist.

The school library and information centre and the school librarian (trained information specialist) play a very important role in the teaching of **interdisciplinary** information literacy. The IFLA/UNESCO School Library Manifesto describes access to the resources of a good school library (and information centre) and instruction in information literacy as basic Human Rights.

National Library Associations or other authorities completing this questionnaire are asked to return the completed questionnaires by the **14 June 2004.**

Fortunately we are very happy to announce that Ir. W.F. Konijnenberg, who is a retired engineer and experienced statistician and also a graduate of the Technical University in Delft, the Netherlands, has offered us his services. He will review the questionnaires which are returned and quantify the statistical information. Our thanks to Mr. Konijnenberg.

Purpose of this survey:

The main purpose of this survey is to try to provide information and statistics which can be used to promote the provision of better resources for secondary school libraries and information services within Europe. We also hope to be able to improve the status of the qualified school librarian within the school.

This survey hopes to measure the impact of the school library and information centre and the library staff on the teaching of **interdisciplinary** information literacy in secondary schools in Europe in 2003. It should also be possible to forecast changes which will occur or need to be made within the next five years. What steps need to be taken to improve the present situation and provide pupils with reliable tuition in interdisciplinary information literacy?

National school library associations or similar authorities in different countries within Europe will be asked to complete this questionnaire (in English, French or German) – in most cases, one questionnaire per country. The information contained in the returned forms will then be reviewed and quantified, and a report will be written.

Depending on the outcome of this first questionnaire, we may then prepare a simple questionnaire for individual schools. If funding is available, translations of this second questionnaire will be made into national languages. If funding is unavailable, school library associations will also be requested to translate a (simple) questionnaire into their own language and distribute it to all their members. Members will be asked to return the completed questionnaires by the 1 October 2004.

While preparing this questionnaire, and during discussions at ENSIL meetings, the enormous differences between school systems in European countries have become obvious - differences in languages, concepts, budgets and ideas about how, when and where information literacy should be taught. EURYDICE, the Information Network in Education in Europe (Socrates), contains descriptions of education systems in European countries. This information is regularly updated (last update February 2004). The information provided by EURYDICE will be used as basic information for this survey.

When completing this questionnaire, please provide your most accurate estimates. There are also places in the questionnaire where you can write down your comments and explain the situation in your own country.

Language plays a very important role in this survey, firstly between European school librarians or administrators, and secondly within the school itself. English has been chosen as the language for communication and correspondence for this survey. This first questionnaire will be available in English, and later in French and German. In many cases, the questionnaire will be completed by people whose first language is not English, French or German. For this reason, an attempt has been made to keep the questions as simple as possible. As mentioned above, a second, simple questionnaire for individual schools, will, if possible, be distributed in national languages.

There have been comments about studies on information literacy in secondary schools which have been published in the USA, Canada, Australia and other English-speaking countries. Why are these studies in some ways not applicable to the situation in European schools? The results of these studies in English-speaking countries can be applied, in some ways, to the European situation, however the different languages, cultural differences and the political situation within countries in Europe tend to alter the picture. For this reason, a separate, European study is essential.

It is almost impossible to give an estimate (on a national basis) of an average school library and information centre collection, because of the enormous differences in the funding for

different kinds of schools. Some secondary schools have no library and information service, or very simple ones. Other schools with more resources have extensive school libraries and information services. Please write down your comments about these situations.

Bibliography:

Parts of this survey have been based on the following documents:

- 1) Creaser, Claire and Sally Maynard / *A survey of Library Services to Schools and Children in the UK 2002-2003*. 2003. Library and Statistics Unit (LISU), Department of Information Science, Loughborough University, U.K.
- 2) Elley, Warwick E. / *How in the world do students read? : IEA study of reading literacy*. 1992. The International Association for the Evaluation of Education Achievement. The Hague.

Who is completing the questionnaire?

Name of Authority or Association:

Postal address:

Country:

Contact person:

E-mail:

What is your first (or native) language?:

Which country are you representing? (to which country are the answers in this questionnaire applicable?):

Please estimate the population of the country you are representing:

This questionnaire covers the calendar year 2003. All responses should relate to totals over the relevant period, or to the position at 31 December 2003.

Please include additional comments in the space provided, to clarify or expand on answers given. If you provide approximate figures, please make this clear by adding “ est.” (estimate).

Please use the following abbreviations, and do not leave any boxes blank:

n/k – “not known”

n/a – “ not applicable”

If you have any queries or questions, please contact ENSIL member Helen Boelens at Helen.Boelens@Kalsbeek.nl or the ENSIL Co-ordinator, Lourense Das at info@meles.nl .

Please return this questionnaire to ENSIL info@meles.nl (attention Helen Boelens) no later than 14 June 2004.

Section 1: Description of authority or association completing the questionnaire:

This questionnaire has been completed by a:

Please check only one box.

1. National library association	
2. National school library association	
3. State school library association	
4. Provincial school library association	
5. National government ministry	
6. State government ministry	
7. Provincial government ministry	
8. Other (please give details)	

Comments on Section 1:

Section 2: Description of the different kinds of secondary schools covered by this questionnaire:

2.1 How many secondary schools are there in your country? - an estimate please.

2.2 How many pupils attend the average secondary school? – an estimate please.

2.3 Please list names and addresses of any other authorities or associations which provide services to secondary school libraries and information services in your country.

A description of the different kinds of secondary schools in your country will be obtained from EURYDICE, the Information Network in Education in Europe (Socrates) - (see page 2.).

Comments on Section 2.:

Section 3: Languages:

3.1 Which formal and informal languages are spoken at the average secondary school in your country?

1. English	
2. French	
3. German	
4. Spanish	
5. Russian	
6. Arabic	
7. Other European languages : please describe	
8. Other provincial languages : please describe	
9. Other languages not included in 1 / 8 above : please describe	

Check more than one box where necessary.

3.2 Which languages are taught at the average secondary school?

1. English	
2. French	
3. German	
4. Spanish	
5. Russian	
6. Arabic	
7. Classical languages (Latin and Greek)	
8. Other European languages : please describe	
9. Other provincial languages : please describe	
10. Other languages not included in 1 / 9 above : please describe	

Check more than one box where necessary.

Comments on 3.2.

3.3 In the collection of the average school library and information centre, there are books and other information in the following languages:

Language	Yes/No	Percentage %
1. English		
2. French		
3. German		
4. Spanish		
5. Russian		
6. Arabic		
7. Classical languages (Latin and Greek)		
8. Other European languages : please describe		
9. Other provincial languages : please describe		
10. Other languages not included in 1 / 9 above : please describe		

Complete more than one box where necessary.

Comments on 3.3

Section 4: Description of the different kinds of secondary schools libraries and information services covered by this questionnaire:

- 4.1 What percentage of secondary schools in your country have a school library and information centre with a traditional (paper) and multi-media collection? (%)
- 4.2 Does the average **government funded** secondary school have a school library and information centre? Yes/No
- 4.3 Do some **government-funded** secondary schools have more than one school library and information centre? Yes/No/Other comments
- 4.4 Why:
- 4.4.1 More than one school location: Yes No Other
- 4.4.2 Difference of level in education: Yes No Other
- 4.4.3 Don't know
- 4.5 Is there a difference in the quality of school library and information centres in government funded secondary schools and non-government funded secondary schools (private schools where parents pay school fees)? Yes No Other – please describe.
- 4.6 Are there different kinds of (government funded) secondary schools for children with different abilities? Yes No

If the answer is yes, please describe – please check only one box:

Description	Yes	No	Other – Please describe
• Secondary schools for children with less than average ability / slow learners - Do these schools have a school library and information centre?			
• Secondary schools for children with average ability - Do these schools have a school library and information centre			
• Secondary schools for children with above average ability / gifted children - Do these schools have a school library and information centre?			

If the answer is no:

Description	Yes	No	Other – Please describe
• Do most children go to a secondary school where pupils with less than average ability share the same school library and information centre as			

average and gifted pupils			
---------------------------	--	--	--

4.7 Information about **independent or private** secondary schools will be collected from the EURYDICE, the Information Network in Education in Europe (Socrates)

Comments on Section 4 :

Section 5: Description of the staff of the secondary schools libraries and information services covered by this questionnaire:

5.1 Has the national or state school library association written a job profile for employees of the secondary school libraries and information services covered by this questionnaire? Yes No Other

5.2 Are their different levels of jobs within the school library, for example:

5.2.1 **Chief librarian (information specialist)** – Yes No Other

What training does the average chief librarian have? This question refers to a degree or diploma as a librarian, not other degrees or diplomas.

- University level – 3 or 4 years fulltime study at a recognised library faculty
Yes No
- College level – 3 or 4 years fulltime study at a recognised library faculty
Yes No
- Technical college level – 1 or 2 years or part-time library study at a recognised institution. Yes No
- No library training. Yes No
- Other. Please describe

What is the average salary for a chief librarian (information specialist) in a secondary school library and information centre, in Euro's, per annum?:

Comments on section 5.2.1:

5.2.2 **Teacher Librarian:** Yes No Other

What training does the average teacher librarian have? This question refers to a degree or diploma as a librarian, not other degrees or diplomas.

- University level – 3 or 4 years full-time study at a recognised library faculty, plus a teaching diploma Yes No
- College level – 3 or 4 years full-time study at a recognised library faculty, plus a teaching diploma Yes No
- Technical college level – 1 or 2 years or part-time library study at a recognised institution. Yes No
- No library training. Yes No
- Other. Please describe.

What is the average salary for a teacher librarian in a secondary school library and information centre, in Euro's, per annum?:

Comments on Section 5.2.2

5.2.3 **Librarian:** Yes No Other

What training does the average school librarian have? This question refers to a degree or diploma as a librarian, not other degrees or diplomas.

- University level – 3 or 4 years full-time study at a recognised library faculty plus a teaching diploma. Yes No
- College level – 3 or 4 years full-time study at a recognised library faculty Yes No
- Technical college level – 1 or 2 years or part-time library study at a recognised institution. Yes No
- No library training. Yes No
- Other. Please describe.

What is the average salary for a librarian in a secondary school library and information centre, in Euro's, per annum?:

Comments on 5.2.3

5.2.4 Assistant librarian: Yes No Other

What training does the average assistant school librarian have? This question refers to a degree or diploma as a librarian, not other degrees or diplomas.

- University level – 3 or 4 years full-time study at a recognised library faculty, plus a teaching diploma Yes No
- College level – 3 or 4 years full-time study at a recognised library faculty Yes No
- Technical college level – 1 or 2 years or part-time library study at a recognised institution. Yes No
- No library training. Yes No
- Other. Please describe.

What is the average salary for an assistant librarian in a secondary school library and information centre, in Euro's, per annum?:

Comments on 5.2.4.

5.2.4 Library clerk: Yes No Other

What training does the average library clerk have? This question refers to a degree or diploma as a librarian, not other degrees or diplomas.

- College level – 3 or 4 years full-time study at a recognised library faculty
Yes No
- Technical college level – 1 or 2 years or part-time library study at a recognised institution. Yes No
- No library training. Yes No
- Other. Please describe.

What is the average salary for a library clerk in a secondary school library and information centre, in Euro's, per annum?:

Comments on 5.2.5.

5.2.6 Study hall supervisor*: Yes No Other

What training does the average study hall supervisor have? This question refers to a degree or diploma as a librarian, not other degrees or diplomas.

- College level – 3 or 4 years full-time study at a recognised library faculty
Yes No
- Technical college level – 1 or 2 years or part-time library study at a recognised institution. Yes No
- No library training. Yes No
- Other. Please describe.

What is the average salary for a library clerk in a secondary school library and information centre. in Euro's, per annum?:

*This questionnaire uses the term “study hall supervisor” to describe the member of staff who supervises children who are doing their homework or studying in the school library and information centre.

Comments on 5.2.6.

- 5.3 Is there a difference in the salary scales for school library staff working in:
The school types used in this table are used again in Section 7.

	School type	Yes	No	Other	Score*
1.	Government funded secondary school				
2.	Government funded secondary schools which also receive school fees from parent or guardians				
3.	Independent or private schools				
4.	International schools				
5.	Other – please describe				
6.	Don't know				

*If the salary scales are different, please mark each category with a ranking number, starting with 1 (= highest salary) and ending with 5 (=lowest salary). It is possible that not all school types are applicable in your country

- 5.4 Are there volunteers who work in secondary school libraries and information services in your country? Yes No Other .
- 5.5 Is it possible to estimate the % of work carried out by volunteers in the average school library and information service: Yes No Other .

Section 6: Description of the services provided by the staff of the secondary schools libraries and information services covered by this questionnaire (excluding the teaching of information literacy skills – see Section 7):

6.1 Library loan services offered by the school library and information service. Please indicate with a X which services are offered by the average school library and information centre. Also please indicate which member of staff usually carries out these tasks, using the following formula:

- Chief librarian and school media specialist = 1
- Teacher Librarian = 2
- Librarian = 3
- Assistant librarian = 4
- Library clerk = 5
- Study hall supervisor = 6
- Volunteer = 7.

Fill in more than one number if necessary.

<u>Loan services offered</u>	Yes	No	By which staff member
Library loans via an up-to-date on-line library circulation system			
Collection: a selection of materials appropriate for the grade level and curriculum, which also meet the criteria of the selection policy, such as			
• Books			
• Magazines			
• Documentation and brochures			
• Video's			
• DVD's			
• CD-ROM's			
• Audio-visual material			
• Online Data Bases			
• Internet access at the library			
• Special collection for teaching staff			
• Artefacts, pictures, photo's			
An up-to-date on-line library catalogue for public use.			
Materials which are outdated, worn or no longer used are eliminated from the collection			
A yearly inventory is taken to determine the status of the collection			
Inter-library loans (from other libraries in your area)			
Other (please specify)			

6.2 Supervisory services offered by the school library and information service:

<u>Supervisory services offered</u>	Yes	No	By which staff member
Supervision of pupils using the school library and information centre			
Providing help for pupils when required			
Supervision of the clerical staff and volunteers.			
Other (please specify)			

6.3 Advisory services offered by the school library and information service:

<u>Advisory services offered</u>	Yes	No	By which staff member
Reading promotion			
Curriculum support			
Book/resource information			
Advice to the teaching staff			
Recruitment and training of library staff			
Policy and development planning			
Discussions with school leaders about school library policy and other matters.			
Library management systems support			
Reading promotion			
Exhibitions			
Other (please specify)			

6.4 Other services offered by the school library and information service:

<u>Other services offered</u>	Yes	No	By which staff member
Interchange of ideas with school librarians and information specialists from other schools			
Education collections			
Book talks / author visits			
Regular newsletters			
Electronic ordering and communication			
Purchase schemes / bookshop			
Remote access to catalogue			
Provision of resources via local website			
Repairs to damaged books and information			
Other (please specify)			

Section 7: Description of the services provided by the staff of the secondary schools libraries and information services covered by this questionnaire, with regard to the teaching of information literacy skills:

- 7 Is there interest in your country in interdisciplinary Information Literacy. Yes No Other . (please describe).

The term “Interdisciplinary information literacy” is used to describe information literacy skills which can be applied to many different subject, and are not just applicable to one subject area.

- 7.1 Do members of the staff of the school library and information centre also have teaching skills / qualifications:

<u>Members of staff of school library and media centre with teaching skills (diploma)</u>	Yes	No	Other (please specify)
Chief librarian and school media specialist			
Teacher Librarian			
Librarian			
Assistant librarian			
Library clerk			
Study hall supervisor			

- 7.2 What percentage of school librarians in your country are involved in teaching pupils interdisciplinary Information Literacy?: % (estimate)

- 7.3 Are school librarians being trained to do this work? Yes No Other (please describe).

- 7.4 Are their programmes in your country so that school librarians can learn teaching skills?: Yes No Other (please describe).

- 7.5 Are other members of the school staff involved in the teaching of interdisciplinary information literacy? : Yes No Other (please describe).^{7.5}

- 7.6 If so, do these members of staff have any formal qualifications as information specialists? Yes No Other (please describe).^{7.6}

^{7.5 en 7.6} This question does not refer to teachers who teach some information skills with regard to their own subject.

7.7 Which interdisciplinary information literacy skills are being taught in the school library and information service, by which staff member:

- Chief librarian and school media specialist = 1
 - Teacher Librarian = 2
 - Librarian = 3
 - Assistant librarian = 4
 - Library clerk = 5
 - Study hall supervisor = 6
 - Other – Please describe
- Fill in more than one number if necessary.

<u>Teaching of interdisciplinary information literacy skills</u>	Yes	No	By which staff member
Information training skills for pupils:			
• Lower school			
• Upper school			
Teaching students to access, use and evaluate information.			
The school librarian and teachers jointly plan lessons to augment what is being taught in the classroom.			
Co-ordination and discussions with teaching staff with regard to the teaching of information literacy skills.			
Discussions with school leaders about the teaching of information literacy skills within the school			
Other (please specify)			

7.8 Are there any research projects concerned with the teaching of interdisciplinary information literacy taking place in your country at the present time. If so, would you please describe these projects.

7.9 Have any such projects already been completed? If so, please send documentation (in English).

7.10 Are you aware of any European-wide projects which are taking place at the moment? If so, please provide more details.

Section 8: Description of the collection (stock), use and users in the secondary schools libraries and information services covered by this questionnaire.

8. In this section of the survey, an attempt is made to envisage the contents of the average secondary school libraries and information centres in your country. Section 8 deals with the collection (stock).

Section 9 deals with access to computers where pupils can also access all kinds of different digital information.

- 8.1 School type 1 : Government funded secondary school
An estimate of an average collection is:

Less than 1000 entries in the library catalogue	
Between 1000 and 2500 entries in the library catalogue	
Between 2,500 and 5000 entries in the library catalogue	
Between 5000 and 10000 entries in the library catalogue	
More than 10000 entries in the library catalogue	
See Section 2. Not applicable	

Please check only one box.

8.1.1 Below is a list of stock or material which may or may not be found in the average secondary school library and information centre in School type 1. In your opinion, what percentage, per category, would be found in the collection:

An estimate of an average collection is:

<u>Books:</u>	Percentage % of the total collection (estimate)
• Young Adult books	
• Adult literature	
• Non-fiction books	
• Reference books	
• Special collection for teaching staff	

<u>Non-book material:</u>	
• Magazines	
• Documentation and brochures	
• CDs (music)	
• Audio-visual material	
• Artefacts, pictures, photo's	

<u>Digital material:</u>	
• Video's	
• DVDs	
• On-line Data Bases	
• CD-ROMs	
• Websites (URL's) selected by the librarian and made available, per subject, via the library catalogue	
• Documentation in digital files	
Total	100%

8.1.2 An estimate is not possible Yes No

Comments on question 8.1

8.2 School type 2 : Government funded secondary schools which also receive school fees from parent or guardians

Less than 1000 entries in the library catalogue	
Between 1000 and 2500 entries in the library catalogue	
Between 2,500 and 5000 entries in the library catalogue	
Between 5000 and 10000 entries in the library catalogue	
More than 10000 entries in the library catalogue	
See Section 2. Not applicable	

Please check only one box.

8.2.1 Below is a list of stock or material which may or may not be found in the average secondary school library and information centre in School type 2. In your opinion, what percentage, per category, would be found in the collection:

An estimate of an average collection is:

<u>Books:</u>	Percentage % of the total collection (estimate)
• Young Adult books	
• Adult literature	
• Non-fiction books	
• Reference books	
• Special collection for teaching staff	

<u>Non-book material:</u>	
• Magazines	
• Documentation and brochures	
• Video's	
• Audio-visual material	
• Artefacts, pictures, photo's	

<u>Digital material:</u>	
• DVDs	
• CDs (music)	
• On-line Data Bases	
• CD-ROMs	

• Websites (URL's) selected by the librarian and made available, per subject, via the library catalogue	
• Documentation in digital files	
Total	100%

8.2.2 An estimate is not possible Yes No

Comments on question 8.2

8.3 School type 3 : Independent or private schools

Less than 1000 entries in the library catalogue	
Between 1000 and 2500 entries in the library catalogue	
Between 2,500 and 5000 entries in the library catalogue	
Between 5000 and 10000 entries in the library catalogue	
More than 10000 entries in the library catalogue	
See Section 2. Not applicable	

Please check only one box.

8.3.1 Below is a list of stock or material which may or may not be found in the average secondary school library and information centre in School type 3 In your opinion, what percentage, per category, would be found in the collection:

An estimate of an average collection is:

<u>Books:</u>	Percentage % of the total collection (estimate)
• Young Adult books	
• Adult literature	
• Non-fiction books	
• Reference books	
• Special collection for teaching staff	

<u>Non-book material:</u>	
• Magazines	
• Documentation and brochures	

• Video's	
• Audio-visual material	
• Artefacts, pictures, photo's	

<u>Digital material:</u>	
• DVDs	
• CDs (music)	
• On-line Data Bases	
• CD-ROMs	
• Websites (URL's) selected by the librarian and made available, per subject, via the library catalogue	
• Documentation in digital files	
Total	100 %

8.3.2 n estimate is not possible Yes No .

Comments on question 8.3

8.4 School type 4 : International schools

Less than 1000 entries in the library catalogue	
Between 1000 and 2500 entries in the library catalogue	
Between 2,500 and 5000 entries in the library catalogue	
Between 5000 and 10000 entries in the library catalogue	
More than 10000 entries in the library catalogue	
See Section 2 – Not applicable	

Please check only one box.

- 8.4.1 Below is a list of stock or material which may or may not be found in the average secondary school library and information centre in School type 4. In your opinion, what percentage, per category, would be found in the collection:

An estimate of an average collection is:

<u>Books:</u>	Percentage % of the total collection (estimate)
• Young Adult books	
• Adult literature	
• Non-fiction books	
• Reference books	
• Special collection for teaching staff	

<u>Non-book material:</u>	
• Magazines	
• Documentation and brochures	
• Video's	
• Audio-visual material	
• Artefacts, pictures, photo's	

<u>Digital material:</u>	
• DVDs	
• CDs (music)	
• On-line Data Bases	
• CD-ROMs	
• Websites (URL's) selected by the librarian and made available, per subject, via the library catalogue	
• Documentation in digital files	
<u>Total:</u>	%

- 8.4.2 An estimate is not possible Yes No

Comments on question 8.4

8.5 School type 5 : Other – please describe

Less than 1000 entries in the library catalogue	
Between 1000 and 2500 entries in the library catalogue	
Between 2,500 and 5000 entries in the library catalogue	
Between 5000 and 10000 entries in the library catalogue	
More than 10000 entries in the library catalogue	
See Section 2 – Not applicable	

Please check only one box.

8.5.1 Below is a list of stock or material which may or may not be found in the average secondary school library and information centre in School type 5. In your opinion, what percentage, per category, would be found in the collection:

An estimate of an average collection is:

<u>Books:</u>	Percentage % of the total collection (estimate)
• Young Adult books	
• Adult literature	
• Non-fiction books	
• Reference books	
• Special collection for teaching staff	

<u>Non-book material:</u>	
• Magazines	
• Documentation and brochures	
• Video's	
• Audio-visual material	
• Artefacts, pictures, photo's	

<u>Digital material:</u>	
• DVDs	
• CDs (music)	
• On-line Data Bases	
• CD-ROMs	
• Websites (URL's) selected by the librarian and	

Appendix IV – Data from European ENSIL surveys - 27

made available, per subject, via the library catalogue	
• Documentation in digital files	
Total:	

8.5.2 An estimate is not possible Yes No

Comments on question 8.5

Section 9: Description of the use of computers (pc's) and other computer hardware and software in the secondary schools libraries and information services covered by this questionnaire.

9.1 Computer hardware and software available to pupils.

Below is a list of computer hardware and software which may or may not be found in the average secondary school library and information centre in School type 1. Please provide an estimate.

<u>Computer Hardware</u>	Average Nr.
• Computers (PC's)	
• Scanner	
• Colour printer	
• Black and white printer	
• Are there separate computers with access to the on-line public catalogue of the school library and information centre.	

Comments:

<u>Computer software</u>	Yes	No	Don't know / not applicable
• MS-office			
• Internet connections			
• Are pupils permitted to use "chat" programmes in the school library and information centre?			
• E-mail			
• Connections to on-line databases			
• Aqua browser			
• Does the school have its own school library and information centre homepage?			
• Websites (URL's) selected by the librarian or teachers and made available, per subject, via the school library and information centre homepage?			
• Is there access to an on-line (government sponsored) URL where teachers and librarians can place information and URL's concerned with their own subject? For example, in the Netherlands this URL can be found at www.kennisnet.nl .			

<ul style="list-style-type: none"> • In your opinion, is this government sponsored URL successful 			
Comments please.			
<ul style="list-style-type: none"> • On-line public catalogue for the school library and information centre 			
<ul style="list-style-type: none"> • On-line connection to the public catalogue of the local public library 			
<ul style="list-style-type: none"> • Does the school library have its own web-page which pupils can access from home (via Internet)? 			
<ul style="list-style-type: none"> • Other – please describe 			

9.2 In some countries there is a government standard regarding access to computers throughout the whole secondary school. Yes / No / Other comments.

9.3 What is the standard? Please check one box:

<ul style="list-style-type: none"> • 1 computer (PC) or more for less than 10 pupils 	
<ul style="list-style-type: none"> • 1 computer (PC) for less than 15 pupils 	
<ul style="list-style-type: none"> • 1 computer (PC) for less than 20 pupils 	
<ul style="list-style-type: none"> • 1 computer (PC) for less than 50 pupils 	
<ul style="list-style-type: none"> • 1 computer (PC) for less than 100 pupils 	
Other. Please describe	

Other comments:

9.4 Computer hardware and software available to library staff. Please check the appropriate box.

<u>Computer Hardware</u>	
<ul style="list-style-type: none"> • Computers (PC's) : 1 per staff member 	
<ul style="list-style-type: none"> • Computers (PC's) : 1 per two staff members 	
<ul style="list-style-type: none"> • Other – please describe 	
<ul style="list-style-type: none"> • Scanner 	
<ul style="list-style-type: none"> • Colour printer 	
<ul style="list-style-type: none"> • Black and white printer 	
<ul style="list-style-type: none"> • Other – Please describe 	

Comments:

Section 10: Description of the computers network in the secondary schools libraries and information services covered by this questionnaire.

10.1 Does the average secondary school have an adequate computer network?
Yes No Other

10.2 Is there more than one network? Yes No Other

10.3 What is the most important function of the network?

10.3.1 Administrative Yes No

10.3.2 Educational Yes No

10.3.3 Library Yes No

10.3.4 Other Yes No /please describe.

10.4 Is the network reliable or are there constant network failures?

10.4.1 Reliable Yes No

10.4.2 Unreliable Yes No

10.4.3 Other Yes No /please describe

Section 11: Description of other facilities in the secondary schools libraries and information services covered by this questionnaire..

Pupils often like to use the school library and information service to sit quietly and do their homework. Other students go and sit in the library to study for exams.

How many students can the average school library and information service accommodate (desks, places at work tables, etc.)?

Please list other facilities in the average school library and information centre, which are not covered by this questionnaire.

Section 12: Budget of the average secondary schools libraries and information services covered by this questionnaire.

(excluding staff salaries, and accommodation costs (cost of the premises in the school building)

12.1 Can you estimate (in Euro's) how much money is spent, (per year per pupil), on the average school library and information centre in your country.

This estimate includes:

- Computer and IT costs (see Section ...)
- Library and information centre collection (see Section ...)
- Stationery, equipment and administration
- Furniture

Estimated total expenditure, per pupil, in calendar year 2003 (excluding costs for staff and premises:

Total per capita (per pupil)

12-2 Charging structures: do pupils pay an extra fee for school library and information service?

Income	Yes	No	Other
1. No fee. It is a free service provided by the school. All pupils at the school are automatically a member of the library			
2. Pupils pay an extra fee (subscription)			
3. How much is this fee (in Euro's)			
4. Is library membership compulsory?			
5. Do pupils have to pay a fine for material that is returned to the library after the due date?			
6. Do pupils have to pay for prints made from the library computers?			

12.3 In your opinion do government funded school library and information centres in

secondary schools receive adequate funding? Yes/No/Other comments.

Short summary – of the 1st ENSIL survey written on 26 June 2005.

1. Questionnaire Nr. 1:

- Sent to a total of 24 addresses / countries (obtained from ENSIL members and also from the IASL web-site (School Library Associations in Europe).
- Sent in English
- Replies received from 8 countries: Austria, Italy, Netherlands, Belgium/Flanders, Norway, U.K., Scotland, Croatia.

Possible reasons for small response:

- Incorrect addresses of School Library Associations in some countries
- Not all countries have a School Library Association. In some countries, the School Library Association is part of the National Library Association (see answers to Questionnaire Nr. 2)
- Use of English language.
- Questions asked were too difficult.
- Statistics and information needed to complete the questions which were asked was unavailable or did not exist.

In September 2005, Questionnaire Nr. 1 will be sent to the addresses supplied by questionnaire Nr. 2, to those countries which have not as yet answered questionnaire Nr. 1 and for which we now have an accurate address of a School Library Association or another appropriate authority.

SECOND ENSIL SURVEY, 2005.

Short summary – of the 2nd ENSIL survey written on 26 June 2005.

2. Questionnaire Nr. 2:

- Sent to the Directors of 51 National Libraries within Europe. This action was taken in an attempt to confirm information already received in questionnaire Nr. 1 or to get in contact with organisations which would be able to accurately complete questionnaire Nr. 1.
- The UNESCO list of countries within Europe was used to determine the national libraries within Europe (excluding the Vatican) which should receive a questionnaire.
- One of the purposes of the questionnaire was to find out whether or not School Libraries and School Library Associations exist in the 51 countries included on the list.
- The questionnaire was sent first by E-mail and one week later by post.
- 8 responses were received by E-mail: Austria, Czech Republic, Cyprus, Hungary, Republic of Ireland, Lithuania, Poland, Sweden.
- 9 responses were received by post: Andorra, Estonia, Germany, Greece, Luxembourg, Netherlands, Portugal, Serbia, Turkey

Responses from national libraries: Andorra, Austria, Croatia, Cyprus, Estonia, Germany, Hungary, Liechtenstein, Lithuania, Poland, Portugal, Serbia, Sweden, Turkey.

In the meantime, Croatia returned the First ENSIL survey. The national library of the Republic of Ireland responded and recommended that the questionnaire be completed by a third party. Requests were sent to this third party but no information was returned.

- In September, 2005, reminders will be sent to the National Libraries in the following countries: Albania, Armenia, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Czech Republic, Denmark, Finland, France, Georgia, Iceland, Italy, Kazakhstan, Latvia, Malta, Monaco, Republic of Moldova, Norway, Romania, Russian Federation, San Marino, Slovakia, Slovenia, Spain, Switzerland, Tajikistan, the former Yugoslav Republic of Macedonia, Ukraine, U.K.
- Some countries have more than one national library. On the advice of IFLA, questionnaires will be sent to all libraries (which are known as national libraries) within Europe
- In September 2005, Questionnaire Nr. 1 will be sent to the addresses supplied by questionnaire Nr. 2, to those countries which have not as yet answered questionnaire Nr. 1 and for which we now have an accurate address of a School Library Association or another appropriate authority.
- Answers to questionnaire Nr. 2 confirm that not all countries have a School Library Association. In some countries, the School Library Association is part of the National Library Association.
- No responses were received from French, Spanish, or Russian speaking countries.

Questionnaires were sent to the National Libraries of:

	<u>Official national language</u>	<u>Other important languages</u>
1 Albania	Albanian	
2 Andorra	Catalonian	
3 Armenia	Armenian	Russian
4 Austria	German	German
5 Azerbaijan	Azerbeidzjaans	Russian
6 Belgium	Dutch, French, German	
7 Bosnia & Herzegovina	Bosnisch, Servisch, Kroatisch	
8 Bulgaria	Bulgarian	
9 Croatia	Croatian	
10 Cyprus	Greek, Turkish	
11 Czech Republic	Czech	
12 Denmark	Danish	
13 England (see also U.K.)	English	
14 Estonia	Estonian	Russian
15 Finland	Finish, Swedish	
16 France	French	
17 Republic of Georgia	Georgisch	Russian
18 Germany	German	
19 Greece	Modern Greek	
20 Hungary	Hungarian, Magjaars	
21 Iceland	Icelandic	
22 Republic of Ireland	English, Irish	
23 Italy	Italian	
24 Kazachstan	Kazachs, Russian	Russian
25 Kyrgyzstan	Kirgizisch, Russian	Russian
26 Latvia	Latvian	Russian
27 Liechtenstein	German	
28 Lithuania	Lithuanian	Russian
29 Luxembourg	German, French	
30 Republic of Macedonia	Macedonisch	
31 Malta	Maltees, English	
32 Moldavië	Russian, Romeens, Moldavisch	
33 Monaco	French	
34 Netherlands	Dutch	
35 Norway	Norwegian	
36 Poland	Polish	
37 Portugal	Portuguese	
38 Romania	Romanian	
39 Russia	Russian, Romeens, Moldavisch	
40 San Marino	Italian	
41 Scotland (see U.K.)	English, Galic?	
42 Serbie	Serbian	
43 Slovakia	Slovakian	
44 Slovenia	Slovakian	
45 Spain	Spanish (Castiliaans)	Catalaans
46 Sweden	Swedish	
47 Switzerland	French, German, Italian	
48 Tajikistan	Tadzjecks	Russian
49 Turkey	Turkish	
50 Turkmenistan	Turkmeens	Russian
51 Ukraine	Ukrainian	
52 United Kingdom (UK)	English	

53	Wales	English, Galic?
54	White Russian Republics	Russian, White Russian

Answer from the National Library

		<u>Answer from National Library</u>
Austria	German	
Azerbaijan	Azerbeidzjaans	Yes
Belgium	Dutch, French, German	
Bosnia & Herzegovina	Bosnisch, Servisch, Kroatisch	
Bulgaria	Bulgarian	
Croatia	Croatian	
Cyprus	Greek, Turkish	
Czech Republic	Czech	
Denmark	Danish	
England (see also U.K.)	English	Yes
Estonia	Estonian	
Finland	Finish, Swedish	
France	French	
Republic of Georgia	Georgisch	Yes
Germany	German	
Greece	Modern Greek	
Hungary	Hungarian, Magjaars	
Iceland	Icelandic	Yes
Republic of Ireland	English, Irish	Yes
Italy	Italian	Yes
Kazachstan	Kazachs, Russian	
Kyrgyzstan	Kirgizisch, Russian	Yes
Latvia	Latvian	
Liechtenstein	German	
Lithuania	Lithuanian	
Luxembourg	German, French	
Republic of Macedonia	Macedonisch	
Malta	Maltees, English	Yes
	Russian, Romeens,	
Moldavië	Moldavisch	Yes
Monaco	French	
Netherlands	Dutch	
Norway	Norwegian	
Poland	Polish	
Portugal	Portuguese	Yes
Romania	Romanian	
	Russian, Romeens,	
Russia	Moldavisch	Yes
San Marino	Italian	Yes
Scotland (see U.K.)	English, Galic?	
Serbie	Serbian	
Slovakia	Slovakian	
Slovania	Slovakian	
Spain	Spanish (Castiliaans)	

Appendix IV – Data from European ENSIL surveys - 37

Sweden	Swedish	
Switzerland	French, German, Italian	
Tajikistan	Tadzjecks	
Turkey	Turkish	Yes
Turkmenistan	Turkmeens	
Ukraine	Ukrainian	
United Kingdom (UK)	English	Yes
Wales	English, Galic?	
White Russian Republis	Russian, White Russian	

Letter sent to National Libraries by port or by E-mail or both:

Letter sent to the directors of all European National Libraries, which appeared on either the IFLA WebPage or in the GABRIEL database on 4 March 2005.

4 March 2005

Dear

Subject: The role played by the school librarian in information literacy instruction in primary and secondary schools throughout Europe.

National governments throughout the world recognise the important economic consequences of an information literate population. Two important international organisations, the IFLA and UNESCO, have issued two joint documents which describe the important role played by school librarians in information literacy: The ***IFLA/UNESCO School Library Manifesto*** and the ***IFLA/UNESCO School Library Guidelines***.

As a research student at the School of Lifelong Learning at the University of Middlesex in London and also as an active member of ENSIL, I am writing to ask for your assistance in obtaining information for my current research project. My research has the support of the Director Europe, IASL (International Association of School Librarianship) and also of my advisors at:

1. University of Middlesex, London, U.K.
2. Haagse Hoogeschool, The Hague, The Netherlands
3. University of Amsterdam, Amsterdam, The Netherlands.

ENSIL (the European Network for School Libraries and Information Literacy) was established in Amsterdam on 21-23 March 2003. ENSIL now has members from 15 countries within Europe. Its purpose can be found in the Amsterdam Statement, which appears on page 4.

My research should provide insight into the role played by school libraries and school librarians in schools throughout Europe and measure the effect which they have on the quality of students' learning outcomes and on the teaching of information literacy skills to children of school age.

As a result of the present research, ENSIL hopes to be able to provide European school librarians with information in their own national language, which will help them to fulfil their important role in the teaching of information literacy. ENSIL has applied for a subsidy for this research to the UNESCO "Information for All" project. At this time we do not know whether or not a subsidy has been granted.

I am writing to ask for your valuable assistance in this European information literacy project. It would be greatly appreciated if you would fill in the answers to the questions shown on page 3. Please return your answers to me, at the address shown below, or to the ENSIL address shown on the letterhead.

Reliable information is of uttermost importance. Of course some of the information which we have requested is available via different sources, including the Internet, but unfortunately much of this has not been recently updated or is incomplete. Some web links are not working. Therefore, your important role as the supplier of reliable information, is clear.

This letter is being forwarded to you via the normal postal service, with a copy to the internet address which I have found on either the IFLA Webpage or in the GABRIEL database.

In closing I would like to express my gratitude for your co-operation.

Yours sincerely,

Helen Boelens
Botdrager 10.
3641 LA Mijdrecht,
The Netherlands.

E-mail: boelen1@attglobal.net

ENSIL Questionnaire 2 sent to National Libraries.

The role played by the school librarian in information literacy instruction in primary and secondary schools throughout Europe.

School Libraries in(Name of country)

1. Is there a school library in the average primary school in your country?
2. Is there a trained school librarian in the average primary school in your country?
3. Is there a school library in the average secondary school in your country?
4. Is there a trained school librarian in the average secondary school in your country?
5. Is there a national School Library Association in your country?
6. What is the address (including E-mail address) of this committee?
7. What is the name of the President of this association?
8. Are there regional School Library Associations in your country?
9. What are the addresses (including E-mail address) of these association?
10. What are the names of the Presidents of these associations?
11. If there is no school library association, are school librarians members of the National Library Association in your country?
What is the address (including E-mail address) of the National Library association?
12. What is the name of the President of this association?
13. Are librarians (information specialists) still be trained at university level in your country?
14. At which universities? Please list the name of the university, address, faculty, and if possible, the name of the head of the faculty.

ENSIL Questionnaire to National Libraries 2005.**ENSIL QUESTIONNAIRE to National Libraries 2005****1) Who is completing this questionnaire:****Data was returned by the national libraries of the following countries>**

Name:	Country:	Date:
1 Biblioteca Nacional, Govern d'Andorra	Andorra	April 14, 2005
2 Bundesministerium für Bildung Wissenschaft und Kultur, Wien	Austria	May 10, 2005
3 Narodni knihovna České republiky, Praha	Czech Republic	May 27, 2005
4 Cyprus Library, Eleftheria Square, 1011 Nicosia	Cyprus	June 26, 2005
5 National Library of Estonia, Ronismagi 2, 15189 Tallinn	Estonia	March 23, 2005
6 Die Deutsche Bibliothek, Frankfurt	Germany	March 22, 2005
7 National Library of Greece, 32 Panepistimiou Street, GR-106 79 Athens, Greece	Greece	April 7, 2005
8 Feedback could not be processed	Hungary	
9 National Library of Lithuania Aldona Augustaitiene	Lithuania	April 15, 2005
10 Ministry of Education, Luxembourg	Luxembourg	No date
11 Koninklijke Bibliotheek, Den Haag	Netherlands	March 23, 2005
12 The National Library, The Librarianship Division, Direcção Geral de Inovação e Desenvolvimento Curricular, Rede de Bibliotecas	Poland	No date
13 Escolares, Lisboa	Portugal	No date
14 National Library of Serbia	Serbia	March 22, 2005
15 The Royal Library, National Library of Sweden, Box 5039, S-10241 Stockholm.	Sweden	March 18, 2005
16 The National Library of Turkey, Ankara	Turkey	March 24, 2005

THIRD ENSIL SURVEY – 2007.

Text : Third ENSIL Survey, 2007.

Note: Answers which were received from this survey have been filled in in the individual Country Reports – Appendix III.

ENSIL QUESTIONNAIRE – August 2007

1) Who is completing this questionnaire:

a) Name:

b) Function (Job description):

c) Place of employment:

d) Country:

e) Date:

2) General questions:

a) Job description

(1) Is there a job description, which has been prepared for use at national level, for the work carried out by a school librarian or teaching librarian? (This could be a job description which has been prepared by the Ministry of Education, or the (School) Library Association in your country).

Yes/No

(2) Is this job description recognized at governmental level?

Yes/No

(3) When was this job description prepared? Date and Year:

(4) Is it possible to send a copy of this job description to me in English?

Yes/No

If the answer is Yes, could you please attach a copy to this questionnaire (as a WORD document).

b) School Library Association

(1) Does your country have a National School Library Association?

Yes/No

If the answer is Yes, could you please write down the address and the name of the contact person:

Address:

Contact person:

(2) Does your country have more than one School Library Association?

Yes/No

If the answer is Yes, please give details of the different associations, the relevant addresses and the names of the contact persons.

(3) Is the School Library Association part of (a division of) the national Library Association?

Yes/No

(4) If a questionnaire is sent to the School Library Association in the English language, would this cause a problem?

Yes/No

What is the preferred language for an (international) questionnaire?

Answer:

c) National Survey of School Libraries

It is very important to this research to receive reliable statistics about the role of school libraries and school librarians (school information specialists) in your country. Is there reliable data or statistics, collected in last 5 years at a national or state level, which would be relevant to this study?

- (1) As far as you know, has there ever been a national survey of the work carried out by school libraries in your country?

Yes/No

- (2) When was this survey carried out? Date:

- (3) In which language was this survey carried out?

- (4) Who was asked to complete the survey?

- (5) Do you have a copy of the survey (questions and answers?). If so, could you please enclose a copy as a WORD document as soon as possible.

d) The question of language.

- (1) The original survey was carried out in the English language. Was this a problem?

Yes/No

- (2) Does a majority of school librarians in your country speak and read English?

Yes/No

- (3) What is the preferred language for a questionnaire at:
(a) national level?

Answer:

(b) International level?

Answer:

- 3) Questions about the original ENSIL questionnaire, sent out in 2004:
a) Did you fail to complete the original survey for one of the following reasons:

- i) Language Yes/No
- ii) The data was not available at national level Yes/No
- iii) The data was not available at state level Yes/No
- iv) I had no authority to complete the survey Yes/No
- v) The survey was too long or complex Yes/No
- vi) I was not a member of ENSIL at that time and did not receive the survey. Yes/No
- vii) Other reasons

Thank you very much for completing the survey. Please return it to Helen Boelens as a WORD document, via the ENSIL list.

COMPARISON – ENSIL SURVEYS and
SINGH SURVEY.

<p><u>European-wide ENSIL project</u> <u>Questionnaire.2004</u></p>	<p><u>ENSIL Questionnaire 2005</u></p>	<p><u>ENSIL QUESTIONNAIRE – August 2007</u></p>	<p><u>QUESTIONNAIRE 1993 – Dr. Diljit Singh</u></p>
<p><u>A. Who is completing the questionnaire?</u></p> <ul style="list-style-type: none"> • Name of Authority or Association: • What is your first (or native) language?: • Which country are you representing? • Population of the country <p>:</p>	<p><u>Who is completing the questionnaire?</u></p> <ul style="list-style-type: none"> • National Library (Country): 	<p><u>Who is completing this questionnaire</u></p>	<p>Name of Country</p> <p>Note: Dr. Singh requested embassies from 185 countries (located in the USA) to provide the name of an authoritative source in each country. A request was then sent to each authoritative source, asking information about school libraries in each country. Sixty four countries responded. Twenty three of these countries were located in Europe</p>
<p><u>B. questionnaire has been completed by a:</u></p> <p>National library association</p> <p>National school library association</p> <p>State school library association</p> <p>Provincial school library association</p> <p>National government ministry</p>	<p>National School Library Associations in (country):</p> <ul style="list-style-type: none"> • Is there a national School Library Association in your country? Yes/No • What is the address (including E-mail address) of this association? • What is the name of the President of this association? 	<p>School Library Association</p> <ul style="list-style-type: none"> • Does your country have a National School Library Association? Yes/No • If the answer is Yes, could you please write down the address and the name of the contact person: • Does your country have more than one School Library Association? • If the answer if Yes, please give details of the different associations, the relevant addresses and the names of the contact 	<p>School Library Association</p> <ul style="list-style-type: none"> • Does your country have a school library association (or groups within a larger library or educational association) at the national/federal level, regional/state/provincial or local/district levels which carry out professional activities?

<p>State government ministry</p> <p>Provincial government ministry</p> <p>Other.</p>	<p>Regional School Library Associations in (country):</p> <ul style="list-style-type: none"> • Are there regional School Library Association in your country? Yes/No • What are the addresses (including E-mail address) of these association? • What are the names of the Presidents of these associations? <p>National Library Associations in (country):</p> <ul style="list-style-type: none"> • If there is no school library association, are school librarians members of the National Library Association in your country? • What is the address (including E-mail address) of the National Library association? • What is the name of the President of this association? 	<p>persons.</p> <ul style="list-style-type: none"> • Is the School Library Association part of (a division of) the national Library Association? 	
<p>C. Description of the different kinds of secondary schools covered by this questionnaire:</p>			<p>Dr. Singh requested information on the numbers of schools, pupils and teachers in the primary and secondary</p>

Appendix IV – Data from European ENSIL surveys - 50

<ul style="list-style-type: none"> • How many secondary schools are there in your country? - an estimate please. • How many pupils attend the average secondary school? – an estimate please. • Please list names and addresses of any other authorities or associations which provide services to secondary school libraries and information services in your country. 			<p>schools in each country. He requested information relating to public schools and non-public schools.</p>
<p>D. <u>Languages:</u></p> <ul style="list-style-type: none"> • Which formal and informal languages are <u>spoken</u> at the average secondary school in your country? <ol style="list-style-type: none"> 1. English 2. French 3. German 4. Spanish 5. Russian 6. Arabic 7. Other European languages – which? 8. Other provincial languages . which? 9. Other languages not included in 1/8. <p>Check more than one box</p>		<p><u>Language</u></p> <ul style="list-style-type: none"> • If a questionnaire is sent to the School Library Association in the English language, would this cause a problem? Yes/No • What is the preferred language for an (international) questionnaire? <p>The question of language.</p> <ul style="list-style-type: none"> • The original (2004) survey was carried out in the English language. Was this a problem? Yes/No • Does a majority of school 	

<p>when necessary</p> <ul style="list-style-type: none"> • Which languages are taught at the average secondary school? <ol style="list-style-type: none"> 1. English 2. French 3. German 4. Spanish 5. Russia 6. Arabic 7. Classical languages (Latin and Greek) 8. Other European languages – which? 9. Other provincial languages – which? 10. Other languages not included in 1/9 <p>Check more than one box where necessary.</p> <ul style="list-style-type: none"> • In the collection of the average school library and information centre, there are books and other information in the following languages: <ol style="list-style-type: none"> 1. English 2. French 3. German 4. Spanish 5. Russia 6. Arabic 		<p>librarians in your country speak and read English? Yes/No</p> <ul style="list-style-type: none"> • What is the preferred language for a questionnaire at: (a) national level? (b) international level? <p>:</p>	
---	--	---	--

<p>7. Classical languages (Latin and Greek) 8. Other European languages – which? 9. Other provincial languages – which? 10. Other languages not included in 1/9 Check more than one box where necessary.</p>			
<p>E. Description of the different kinds of secondary schools libraries and information services covered by this questionnaire:</p> <p>1. What percentage of secondary schools in your country have a school library and information centre with a traditional (paper) and multi-media collection? (%)</p> <p>2. Does the average government funded secondary school have a school library and information centre? Yes/No</p> <p>3. Do some government-funded secondary schools have more than one school library and information centre? Yes/No/Other comments</p>	<p>School Libraries in (country):</p> <p>1. Is there a school library in the average primary school in your country? Yes/No</p> <p>2. Is there a trained school librarian in the average primary school in your country? Yes/No</p> <p>3. Is there a school library in the average secondary school in your country? Yes/No</p> <p>6. Is there a trained school librarian in the average secondary school in your country? Yes/No</p>		<p>Dr. Singh requested information on the libraries in the primary and secondary public schools in each country.</p> <ul style="list-style-type: none"> • What percentage of public schools have a centralized library facility within the school? • What percentage of public schools do not have a centralized library, but have classroom libraries instead? • What percentage of public schools have no library services within the school, but can make use of an outside library (e.g. public library)? • What percentage of public schools have no library service? <p>Dr. Singh then went on to ask philosophical questions</p>

<p>4. Why:</p> <ul style="list-style-type: none"> • More than one school location: • Difference of level in education: • Don't know <input type="checkbox"/> <p>5. Is there a difference in the quality of school library and information centres in government funded secondary schools and non-government funded secondary schools (private schools where parents pay school fees)? Yes <input type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/> – please describe.</p> <p>6. Are there different kinds of (government funded) secondary schools for children with different abilities? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><u>If the answer is yes, please describe</u></p>			<p>about the importance of a school library within the school.</p> <p>Achievement and Equity</p> <ul style="list-style-type: none"> • Does the school library provide special services to students of <ul style="list-style-type: none"> - Differing academic ability - Different cultures and backgrounds - Services to ALL subject teachers, or only teachers teaching certain subjects?
<p>F. Description of the staff of the secondary schools libraries and information services covered by this questionnaire:</p> <ul style="list-style-type: none"> • Has the national or state school library 	<p><u>University degrees for librarians</u> (including school librarians) in (country):</p> <ul style="list-style-type: none"> • Are librarians (information specialists) still being trained at university level in your country? Yes/No • At which universities? 	<p><u>Job description</u></p> <ul style="list-style-type: none"> • Is there a job description, which has been prepared for use at national level, for the work carried out by a school librarian or teaching librarian? (This could be a job description 	<p>Dr. Singh asked for specific information with regard to the training of school librarians in each country:</p> <ul style="list-style-type: none"> • What is the most common level of education or training in librarianship that a teacher-librarian in your country has:

<p>association written a job profile for employees of the secondary school libraries and information services covered by this questionnaire? Yes <input type="checkbox"/> No <input type="checkbox"/> Other <input type="checkbox"/></p> <ul style="list-style-type: none"> Are their different levels of jobs within the school library, for example: <p><u>1. Chief librarian (information specialist) –</u></p> <p>1.1 What training does the average chief librarian have?</p> <p>1.2 What is the average salary for a chief librarian in a secondary school library and information centre, in Euro's, per annum?:</p> <p><u>2. Teacher Librarian</u></p> <p>2.1 What training does the average chief librarian have?</p> <p>2.2 What is the average salary for a</p>	<p>Please list the name of the university, address, faculty, and if possible, the name of the head of the faculty.</p>	<p>which has been prepared by the Ministry of Education, or the (School) Library Association in your country). Yes/No</p> <ul style="list-style-type: none"> Is this job description recognized at governmental level? Yes/No When was this job description prepared? Date and Year: Is it possible to send a copy of this job description to me in English? Yes/No 	<ul style="list-style-type: none"> No training In-service training Certificate (or equivalent) Diploma/Associate degree Bachelor's degree (or equivalent) Masters degree (or equivalent) Other
---	--	--	---

<p>teacher librarian in a secondary school library and information centre, in Euro's, per annum?</p> <p><u>3. Librarian:</u></p> <p>3.1 What training does the average teacher librarian have?</p> <p>3.2 What is the average salary for a librarian in a secondary school library and information centre, in Euro's, per annum?</p> <p><u>4. Assistant librarian:</u></p> <p>4.1 What training does the average assistant school librarian have?</p> <p>4.2 What is the average salary for an assistant librarian in a secondary school library and information centre, in Euro's, per annum?:</p> <p><u>5. Library clerk:</u></p> <p>5.1 What training does the average Library clerk?</p> <p>5.2 What is the average salary for a library clerk in a secondary school library and information</p>			
---	--	--	--

<p>centre, in Euro's, per annum?:</p> <p>6. Study hall supervisor:</p> <p>6.1 What training does the average study hall supervisor?</p> <p>6.2 What is the average salary for a study hall supervisor in a secondary school library and information centre, in Euro's, per annum?:</p> <p>*This questionnaire uses the term "study hall supervisor" to describe the member of staff who supervises children who are doing their homework or studying in the school library and information centre.</p> <p><u>7. Differences in school types</u></p> <p>Is there a difference in the salary scales for school library staff working in: Government funded schools, independent of private schools?</p> <p><u>8. Volunteers</u></p> <p>8.1 Are there volunteers who work in secondary</p>			
--	--	--	--

<p>school libraries and information services in your country?</p> <p>8.2 Is it possible to estimate the % of work carried out by volunteers in the average school library and information service:</p>			
<p><u>G. Description of the services provided by the staff of the secondary schools libraries and information services covered by this questionnaire</u> (excluding the teaching of information literacy skills – see Section H):</p>			<p>Programs and Services</p> <ul style="list-style-type: none"> • Which of the following services are generally offered by the typical school library? <ul style="list-style-type: none"> - Loans - Assistance in finding materials and information - Teaching how to use the library - Production of materials - Joint planning with teachers - Others. • When is the typical school library generally open? <ul style="list-style-type: none"> - On certain school days only - Every school day - Every school day and holidays - Other • Opening hours

<p><u>H. Description of the services provided by the staff of the secondary schools libraries and information services covered by this questionnaire (excluding the teaching of information literacy skills – see Section F):</u></p> <ul style="list-style-type: none"> • Library loan services offered by the school library and information service: - Library loans via an up-to-date on-line library circulation system <ul style="list-style-type: none"> - Collection: a selection of materials appropriate for the grade level and curriculum, which also meet the criteria of the selection policy, such as books, magazines, documentation and brochures, video's, DVD's, CD-ROM's, Audio-visual material, Online Data Bases, Internet access, special collection for teaching staff, Artefacts, pictures, 			
---	--	--	--

<p>photo's, on-line library catalogue, Inter-library loans, other.</p> <ul style="list-style-type: none"> • Supervisory services offered by the school library and information service • Advisory services offered by the school library and information service <p>Other services offered by the school library and information service.</p>			
<p><u>I. Description of the services provided by the staff of the secondary schools libraries and information services covered by this questionnaire, with regard to the teaching of information literacy skills:</u></p> <ul style="list-style-type: none"> • Is there interest in your country in interdisciplinary Information Literacy. The term "Interdisciplinary information literacy" is used to describe information literacy skills which can be applied to many different subject, and are not just applicable 			<p><u>Materials and equipment in the library:</u></p> <ul style="list-style-type: none"> - Books (fiction and non-fiction) - Reference material - Periodicals (magazines, Newspapers) - Display material - 3-dimensional material - Audio material (tapes, records, discs, tape recorders, players) - Still projection material and equipment (slides, cameras, projectors) - Motion projection material (video tapes, films, projectors) - Electronic materials and equipment (Computers, CD-ROM players) - Communication

Appendix IV – Data from European ENSIL surveys - 60

<p>to one subject area.</p> <ul style="list-style-type: none"> • Do members of the staff of the school library and information centre also have teaching skills / qualifications: • What percentage of school librarians in your country are involved in teaching pupils interdisciplinary Information Literacy?: % (estimate) • Are school librarians being trained to do this work? • Are their programmes in your country so that school librarians can learn teaching skills?: • Are other members of the school staff involved in the teaching of interdisciplinary information literacy? • If so, do these members of staff have any formal qualifications as information specialists? • Which interdisciplinary information literacy skills are being taught in the school library and information service, by which staff member: <p>- Chief librarian and</p>			<p>equipment (telephones, modems, Fax machines)</p> <ul style="list-style-type: none"> - Are there guidelines or standards whether at national, regional or local level, for the quantity and/or quality of the materials and equipment which should be available in a public school library. - What percentage of the materials in a typical school library are directly related to the school curriculum.
---	--	--	---

<p>school media specialist</p> <ul style="list-style-type: none"> - Teacher Librarian - Librarian - Assistant librarian - Library clerk - Study hall supervisor - Other – Please describe <p><u>Teaching of interdisciplinary information literacy skills</u></p> <ul style="list-style-type: none"> • Information training skills for pupils: <ul style="list-style-type: none"> - Lower school - Upper school • Teaching students to access, use and evaluate information. • The school librarian and teachers jointly plan lessons to augment what is being taught in the classroom. • Co-ordination and discussions with teaching staff with regard to the teaching of information literacy skills. • Discussions with school leaders about the teaching of information literacy skills within the school • Other (please specify) 			
--	--	--	--

Appendix IV – Data from European ENSIL surveys - 62

<ul style="list-style-type: none"> • Are there any research projects concerned with the teaching of interdisciplinary information literacy taking place in your country at the present time. If so, would you please describe these projects. • Have any such projects already been completed? If so, please send documentation (in English). • Are you aware of any European-wide projects which are taking place at the moment? If so, please provide more details. 			
<p>J. Description of the collection (stock), use and users in the secondary schools libraries and information services covered by this questionnaire.</p> <ul style="list-style-type: none"> • In this section of the survey, an attempt is made to envisage the contents of the average secondary school libraries and information centres in your country. Section 8 deals with the collection 			

<p>(stock).</p> <p>Section K deals with access to computers where pupils can also access all kinds of different digital information.</p> <ul style="list-style-type: none"> • An estimate of an average collection in the catalogue of a Government funded secondary school is: <ul style="list-style-type: none"> - Books: - Magazines - Documentation and brochures - CDs (music) - Audio-visual material - Artefacts, pictures, photo's - Digital material, including video's, DVDs. On-line Data Bases, CD-Roms, Websites, documentation in digital files. 			
<p><u>K. Description of the use of computers (pc's) and other computer hardware and software in the secondary schools</u></p>			

<p><u>libraries and information services covered by this questionnaire.</u></p> <ul style="list-style-type: none"> • Computer hardware and software available to pupils. - <u>Hardware:</u> <ul style="list-style-type: none"> <input type="checkbox"/> PCs <input type="checkbox"/> Scanner <input type="checkbox"/> Colour printer <input type="checkbox"/> Black and white printer <input type="checkbox"/> Are there separate computers with access to the on-line public catalogue of the school library and information centre. - <u>Software:</u> <ul style="list-style-type: none"> <input type="checkbox"/> MS-office <input type="checkbox"/> Internet connections <input type="checkbox"/> Are pupils permitted to use “chat” programmes in the school library and information centre? <input type="checkbox"/> E-mail <input type="checkbox"/> Connections to on-line databases <input type="checkbox"/> Aqua browser <input type="checkbox"/> Does the school have its own school library and information centre homepage? <input type="checkbox"/> Websites (URL’s) selected by the librarian or teachers and made available, per subject, 			
---	--	--	--

<p>via the school library and information centre homepage?</p> <ul style="list-style-type: none"> ❑ Is there access to an on-line (government sponsored) URL where teachers and librarians can place information and URL's concerned with their own subject? For example, in the Netherlands this URL can be found at www.kennisnet.nl ❑ In your opinion, is this government sponsored URL successful ❑ On-line public catalogue for the school library and information centre ❑ On-line connection to the public catalogue of the local public library ❑ Does the school library have its own web-page which pupils can access from home (via Internet)? ❑ Other – please describe <ul style="list-style-type: none"> • In some countries there is a government standard regarding access to computers throughout the 			
---	--	--	--

<p>whole secondary school..</p> <ul style="list-style-type: none"> • What is the standard? Computer hardware and software available to library staff. 			
<p><u>L. Description of the computers network in the secondary schools libraries and information services covered by this questionnaire.</u></p> <ul style="list-style-type: none"> • Does the average secondary school have an adequate computer network? • Is there more than one network? • What is the most important function of the network? <ul style="list-style-type: none"> - Administrative - Education - Library - Other <p>Is the network reliable or are there constant network failures?</p>			
<p><u>M. Description of other facilities in the secondary schools libraries and information services covered by this questionnaire..</u></p> <ul style="list-style-type: none"> • Pupils often like to use 			

Appendix IV – Data from European ENSIL surveys - 67

<p>the school library and information service to sit quietly and do their homework. Other students go and sit in the library to study for exams.</p> <ul style="list-style-type: none"> • How many students can the average school library and information service accommodate (desks, places at work tables, etc.)? <p>Please list other facilities in the average school library and information centre, which are not covered by this questionnaire.</p>			
<p>N. Budget of the average secondary schools libraries and information services covered by this questionnaire.</p> <p>(excluding staff salaries, and accommodation costs (cost of the premises in the school building)</p> <ul style="list-style-type: none"> • Can you estimate (in Euro's) how much money is spent, (per year per pupil), on the average school library and information centre in your country. • Estimated total expenditure, per pupil, 			

Appendix IV – Data from European ENSIL surveys - 68

<p>in calendar year 2003 (excluding costs for staff and premises: Total per capita (per pupil)</p> <ul style="list-style-type: none"> Charging structures: do pupils pay an extra fee for school library and information service? <p>In your opinion do government funded school library and information centres in secondary schools receive adequate funding?</p>			
		<p><u>National Survey of School Libraries</u> It is very important to this research to receive reliable statistics about the role of school libraries and school librarians (school information specialists) in your country. Is there reliable data or statistics, collected in last 5 years at a national or state level, which would be relevant to this study?</p> <ul style="list-style-type: none"> As far as you know, has there ever been a national survey of the work carried out by school libraries in your country? Yes/No When was this survey carried out? Date: 	

Appendix IV – Data from European ENSIL surveys - 69

		<ul style="list-style-type: none"> • In which language was this survey carried out? • Who was asked to complete the survey? • Do you have a copy of the survey (questions and answers?). If so, could you please enclose a copy as a WORD document as soon as possible. 	
		<p><u>Questions about the original ENSIL questionnaire, sent out in 2004:</u></p> <ul style="list-style-type: none"> • Did you fail to complete the original survey for one of the following reasons: <ul style="list-style-type: none"> - Language ... Yes/No - The data was not available at national level ... Yes/No - The data was not available at state level Yes/No - I had no authority to complete the survey Yes/No - The survey was too long or complex Yes/No - I was not a member of ENSIL at that time and did not receive the survey. Yes/No - Other reasons 	<p>School Library Law: Dr. Singh asked each country to define the role of the school library:</p> <ul style="list-style-type: none"> - There is no defined role - For pupils to study when they are free - For recreational reading, viewing and/or listening - For enrichment of the learning process - For instruction requiring library resources and/or services - For finding specific information and ideas - Other. <p>He specifically asked whether or not the development of school libraries were included in the national, regional or local educational development plans for each country.</p>

Appendix IV – Data from European ENSIL surveys - 70

			<p>In his question on Supporting Elements (H) he asked the following question:</p> <ul style="list-style-type: none"> - Does your country have federal/national/state/provincial or local/district level ● <u>standards</u> which must be achieved by all school libraries. ● <u>Guidelines</u> for school libraries
			<p>Finances of the school library (Budget)</p> <ul style="list-style-type: none"> ● What percentage of funds from your national, state and local education budgets are used for school libraries in an average year? ● Does the school administration regularly make funds available to the school library ● If YES, what percentage of funds from a typical school budget ● If NO, where does the school library get its funds ● What is the average expenditure, per pupil per year on library materials.
			Status of the teacher-librarian

Appendix IV – Data from European ENSIL surveys - 71

			<p>Student attainment as a result of the School Library.</p> <p>Based on your knowledge, experience and opinion, in what ways has the typical school library in your country contributed to student learning and achievement.</p>
			<p>Federal, State and/or Local Level Administration:</p> <p>1. Is there a functional federal/national/state/provincial or local/district level department or unit that is responsible for advising, administering and/or co-ordinating school libraries?</p> <p>2. If YES, what are its main responsibilities?</p>

Appendix V : References

References which are specific to an individual country report can be found at the end of that report.

- AASL (American Association of School Librarians) and AECT (Association for Educational Communications and Technology). (1998). *Information Power : building partnerships for learning*. Chicago: American Library Association.
- AASL (American Association of School Librarians). (2007). *AASL Standards for the 21st-Century Learner*. Chicago, Il. : American Association of School Librarians.
<http://www.ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/learningstandards/standards.cfm>
 (accessed on 20 June 2009)
- AASL (American Association of School Librarians). (2010).
<http://www.ala.org/ala/mgrps/divs/aasl/aaslproftools/positionstatements/aaslpositionstatementrolelibrary.cfm>
 (accessed on 3 February 2010)
- ABBOTT, C.(2000). *ICT : Changing Education*. Oxford : Routledge Falmer
- ABILOCK, D. (2008). *21st Century Literacy*. Noddle Tools Inc.,
<http://www.noodletools.com/debbie/literacies/>
 (accessed on 15 July, 2009)
- ACRL (Association of College & Research Libraries), (2000). *Information Literacy Competency Standards for Higher Education* . Chicago, Illinois : ACRL
<http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm>
 (accessed on 8 February 2009)
- ACRL (Association of College & Research Libraries), (2010). *Introduction to Information Literacy : What is Information Literacy?* Chicago, Illinois : ACRL
<http://www.ala.org/ala/mgrps/divs/acrl/issues/infolit/overview/intro/index.cfm>
 (accessed on 2 April 2010)
- AILIS (Association of international librarians and information specialists). (2008).
<http://library.web.cern.ch/library/ailis/>
 (accessed on 22 January 2008)
- ALA (American Library Association) (2007a)
<http://www.ala.org/ala/acrl/acrlissues/acrlinfolit/infolitoverview/introtoinfolit/introtoinfolit.htm#top>
 (accessed on 22 June 2007)
- ALLMEDIA – Alliance for a Media Literate Europe, (2009) *eLearning Dictionary*.
<http://lampan.sag.karlstad.se/~allmedia/index.php?page=http://lampan.sag.karlstad.se/~allmedia/dictionary.php>
 (accessed on 6 February 2009)
- AMNESTY INTERNATIONAL, (2007). <http://thereport.amnesty.org/en>
 (accessed on 22 March 2010)
- ANDEL, C. van (Editor). (1987). *Ruim baan voor de Kalsbeek : 1917 – 1987, van MULO tot brede scholengemeenschap* (“*Make way for the Kalsbeek : 1917 – 1987, from MULO to a broad school group*”) (1987) / Samenstelling: Alien Cnossen ... et al;. Woerden, The Netherlands : F. Kalsbeek Scholengemeenschap
- ANDRETTA, S. (2009). *Transliteracy: take a walk on the wild side*. London, U.K. : Metropolitan University. Conference paper to be presented at the World Library and Information Congress: 75th IFLA General Conference and Council, 23-27 August 2009, Milan, Italy. <http://www.ifla.org/files/hq/papers/ifla75/94-andretta-en.pdf>
 (accessed on 15 July 2009)
- ANGRIST, J. and LAVY, V. (2002) *New Evidence on Classroom Computers and Pupil Learning*.

- Economic Journal, Vol. 112, pp. 735-765, 2002.
- ARNOVE, R. and TORRES, C. (Editors) (2003). *Comparative education : the dialectic of the global and the local*. Lanham ; Oxford : Rowan & Littlefield.
- ASLA (Australian School Library Association) and ALIS (Australian Library and Information Association), (2001) *Learning for the future : developing information services for schools*, 2nd edition. Carlton South, Vic. : Curriculum Corporation.
- ASLA (Australian School Library Association), (2008). *Policy statements*.
<http://www.asla.org.au/>
(accessed on 24 May 2008)
- ASLA (Australian School Library Association and the ALIS (Australian Library and Information Association). (2001). *Learning for the future : developing information services for schools*, 2nd edition. Carlton South, Vic. : Curriculum Corporation.
- AUER, S., JANSEN, W. and ZUYLEN, J. (editors). (1996). *Mediatheken en Bibliotheken (Media Centres and Libraries)*. Studiehuisreeks, Nr. 9, Mei 1996. Tilburg : MesoConsult.
- AUSTRALIAN GOVERNMENT, Department of Education, Employment and Workplace Relations, (1999). *Adelaide Declaration on National Goals for Schooling in the Twenty-first Century*.
http://www.dest.gov.au/sectors/school_education/policy_initiatives_reviews/national_goals_for_schooling_in_the_twenty_first_century.htm
(accessed on 27 January 2010)
- BALANSKAT, A. (2005). *Assessment schemes for teachers' ICT competence – a policy analysis : . Results from IC/P2P Survey*. European Schoolnet.
http://www.flacso.edu.mx/competencias/index2.php?option=com_docman&task=docview&gid=136&Itemid=7
(accessed on 2 February 2010)
- BALANSKAT, A., BLAMIRE, R. and KEFALA, S. (2006). *The ICT Impact Report: A review of studies of ICT impact on schools in Europe*. European Schoolnet.
<http://ec.europa.eu/education/doc/reports/doc/ictimpact.pdf> .
(accessed on 27 May 2007)
- BARELL, J. (2006) *Problem-Based Learning: An Inquiry Approach* (2006). 2nd edition. Thousand Oaks, CA. : Corwin Press.
- BARRETT, L. and DOUGLAS, J. (Editors) (2004). *The CILIP Guidelines for Secondary School Libraries*. London : Facet.
- BAYOU, J., GOUEL, C. and SAVAGEOT, C. 2005. *Projected net enrolment rates for primary-school age children in primary and secondary school and gender parity indices for 2015*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0014/001459/145941e.pdf>
(accessed on 28 August 2008)
- BECTA (formerly known as the British Educational Communications and Technology Agency) (2008). *Harnessing Technology: Schools Survey 2008*
<http://209.85.229.132/search?q=cache:S8qTImLUtUYJ:schools.becta.org.uk/upload->
(accessed on 4 January 2009)
- BERRY, J., POORTINGA, Y. SEGALL, M. and DASEN, P. (1992). *Cross-cultural psychology: Research and applications*. Cambridge: Cambridge University Press.
- BLAIR, A. (2003). *Reading Strategies for Coping With Information Overload ca.1550-1700* 64(1) Journal of the History of Ideas 11-28;
- BLOWERS, H. *Learning 2.0 – 23 Things*. <http://plcmcl2-things.blogspot.com/#23>
(accessed on 30 January 2010)
- BOEKHORST, A, and VEEN, M van. (1996a). *Schoolbibliotheken in het voortgezet onderwijs : Een inventarisatie on opdracht van the Stuurgroep Profiel Tweede Fase Voortgezet Onderwijs*. BBI-reeks nr. 5. Amsterdam : University of Amsterdam.

- BOEKHORST, A, and VEEN, M van. (1996b). *Inventarisatie Schoolbibliotheken VO (Inventory of School Libraries in Secondary Schools)*. In *Mediatheken en Bibliotheken (Media Centres and Libraries)*. Editors: S. Auer, W. Jansen and J. Zuylen. Studiehuisreeks, Nr. 9, Mei 1996. Tilburg : MesoConsult.
- BOEKHORST, A., KOERS, D. and KWAST, I. (1999). *Informatievaardigheden (Information Skills)*. Utrecht: Lemma.
- BOEKHORST, A, and VEEN, M van. (2001) *School Libraries in the Netherlands*. *School Libraries Worldwide* Volume 7, Number 1, January 2001. p. 82-102
- BOEKHORST, A., VEEN, M. van and BOELENS, H. (2006) "School libraries and information literacy in the Netherlands". Paper presented at the World Library and Information Congress, 72nd IFLA General Conference and Council, in Seoul (South Korea), August 2006. http://www.ifla.org/IV/ifla72/papers/142-Boekhorst_Veen_%20Boelens-en.pdf (accessed on 4 December 2004)
- BOELENS, H. (2006a). *Filters make it more difficult for pupils to find information: Instruction in specific information literacy skills, in several different languages, for final examination pupils*. Presented at the FILTER Closing Event in Amsterdam on 10 February 2006. www.filternetwork.org. (accessed on 25 March 2006)
- BOELENS, H. (2006b). *Specific information literacy instruction, in several different languages, for pupils studying for university entrance examinations : School Library and Information Centre, Kalsbeek College, Woerden, The Netherlands*". Presented at the IASL (International Association of School Librarianship) international conference in Lisbon, Portugal in July 2006.
- BOELENS, H. (2006c) "A new kind of information specialist for a new kind of learning". Paper presented at the World Library and Information Congress, 72nd IFLA General Conference and Council, in Seoul (South Korea), August 2006. www.ifla.org (accessed on 20 January 2007) .
- BOELENS, H. (2007). "Imagine ... You may say I'm a dreamer, but I'm not the only one," (Lennon, 1971) : *The school library and information centre at the heart of the learning process and as an integral part of the learning environment*. Paper presented at the Convegno 15-16.03.2007. Biblioteche & formazione dalle informaiton literacy alle nuove sfide della società dell' apprendimento, Milan, Italy, 2007.
- BON (Beter Onderwijs Nederland) (2008). <http://www.beteronderwijsnederland.nl> (accessed on 15 March 2008)
- BRANDHOF, J-W van den (1998) *Gebruik je hersens : Hoe te overleven in het informatie-informatietijdperk?*. (Use your brains : How to survive in the information age) Hoevelaken, The Netherlands : Verba.
- BRANDT-GRUWEL, S. et al. (2004). *Integreren van de vaardigheid 'Informatieproblemen Oplossen' in het curriculum (Integration of the skills needed to "solve an information problem" in the curriculum)*. Utrecht : Digital University (Digitale Universiteit). <http://www.surffoundation.nl/documents/4015.DEL.2509.HandleidingLereninformatieproblemenoplossen.pdf> (accessed on 4 December 2008.
- BREDE SCHOOL (2009). <http://www.bredeschool.nl/> (accessed on 2 August 2009)
- BRITISH COUNCIL (2008). <http://www.britishcouncil.org/new/> Portal. (accessed on 22 March 2010.
- BROADY-PRESTON, J. (2009) *Qualitative methodologies for determining the skills and competencies required for the hybrid information professionals of the 21st century*. Paper presented at the Qualitative and Quantitative Methods in Libraries, International Conference, Chania Crete Greece, 26-29 May 2009.

- BROWN, C. (1970). *Libraries and Education*. Quarterly Review of Australian Education, vol. 3, no. 3.
- BRUCE, B.C. (1997). Current issues and future directions. In J. Flood, S.B. Heath, & D. Lapp (Eds.), *Handbook of research on teaching literacy through the communicative and visual arts* (pp. 875-884). New York: Simon & Schuster Macmillan.
- BRUCE, C.S. (2002). *Information literacy as a catalyst for educational change : a background paper*. White Paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, The Czech Republic.
<http://www.nclis.gov/libinter/infolitconf&meet/papers/bruce-fullpaper.pdf>
(accessed on 10 January 2003)
- BUCH.ZEIT. Bibliothekenservice für Schulen – Library Service for Schools. (2008).
<http://www.buchzeit.at>
(accessed on 24 January 2008)
- BUCKINGHAM, D. (2000). *After the death of childhood : Growing up in the age of electronic media*. Cambridge, U.K. : Polity Press.
- BUCKINGHAM, D. (2001). *Media education : A global strategy for development. A policy paper* prepared for UNESCO, Sector of Communication and Information. London : Institute of Education, University of London. http://portal.unesco.org/ci/en/ev.php-URL_ID=5681&URL_DO=DO_TOPIC&URL_SECTION=201.html
(accessed on 4 May 2010)
- BUNT-KOKHUIS, S.van de. (Editor) (2006a). *World Wide Work : filtering of online content in a globalized world*. Amsterdam, The Netherlands : VU University Press.
- BUNT-KOKHUIS, S.van de (2006b). "Zien en gezien worden; over eerlijke zoekmachines voor en door onderwijsorganisaties" ("Seen and being seen; about honest search engines for and by educational organisations") <http://e-learning.surf.nl/e-learning/artikelen/2932>.
(accessed on 13 April 2006)
- CASSON, L. (2001). *Libraries in the Ancient World*. New Haven, Conn. : Yale University Press.
- CERISIER, J-F. (2008). *Training young people in the use of digital media: the highs and lows of establishing the Information Technology and Internet Proficiency Certificate (B2i) in France*. Distance et savoirs – Hors série/2008.
<http://www.distanceandaccesstoeducation.org/contents/DS2008-Cerisier-Devauchelle-Nguyen-Rizza-en.pdf>
(accessed on 8 November 2008)
- CHAMBERS, A. (1991). *The Reading Environment : How adults help children to enjoy books*. Woodchester, U.K. : The Thimble Press.
- CHAMBERS, A. (1995). *Tell Me : Children, Reading and Talk*. Portland, Me : Stenhouse Publishers.
- CHEN, J., MORAN, S. and GARDNER, H. (Editors) (2009). *Multiple Intelligences around the world*. San Francisco : Jossey-Bass.
- CIA World Factbook, (2007)
<https://www.cia.gov/library/publications/the-world-factbook/index.html>
(accessed on 18 August 2008)
- CIA The World Factbook. (2008)
<https://www.cia.gov/library/publications/the-world-factbook/fields/2206.html>
(accessed on 1 October 2008)
- COE (Council of Europe, ECRI. 2008 Portal. http://www.coe.int/t/dghl/monitoring/ecri/default_en.asp
(accessed on 15 August 2008)
- CLYDE, L. (1981). *The Magic Casements: A survey of school library history from the eight to the twentieth century*. Thesis submitted for the degree of Doctor of Philosophy in the Department of History. Townsville, QLD. : James Cook University.
- COMMISSION OF THE EUROPEAN COMMUNITIES (2007). *Schools for the 21st century*.

- http://ec.europa.eu/education/school21/consultdoc_en.pdf
(accessed on 4 January 2009)
- CONCEPT TO CLASSROOM (2010). *Workshop – Inquiry based learning*.
<http://www.thirteen.org/edonline/concept2class/inquiry/index.html>
(accessed on 28 January 2010)
- CORDES, A. (2009) *Broad Horizons: The Role of Multimodal Literacy in 21st Century Library Instruction* Macomb, U.S.A. : Western Illinois University. Conference paper to be presented at the World Library and Information Congress: 75th IFLA General Conference and Council, 23-27 August 2009, Milan, Italy.
<http://www.ifla.org/files/hq/papers/ifla75/94-cordes-en.pdf>
(accessed on 15 July 2009)
- COSTA, A. (2001). *Developing Minds: A Resource Book for Teaching Thinking* (3rd Edition).
Alexandria, VA : Association for Supervision and Curriculum Development
- COUNTRY STUDIES (2008). <http://countrystudies.us/> Portal.
(accessed on 22 March 2010)
- CREEMERS, B. and KYRIAKIDES, L. (2008) . *The dynamics of educational effectiveness : a contribution to policy, practice and theory in contemporary schools*. London :
Routledge.
- CRESSWELL, J. (2009) *Research Design : Qualitative and Mixed Methods Approaches*. 3rd edition.
Thousands Oaks, CA : Sage Publications.
- CROSSLEY, M. and WATSON, K. (2009). *Comparative and international education : policy transfer, context sensitivity and professional development*. Oxford Review of Education, Vol. 35, Nr. 5, October 2009, p. 633-649.
- CRYSTAL, D. (1997) *English as a global language*. Cambridge : Cambridge University Press.
- CUBAN, L. (1986). *Teachers and Machines: The Classroom Use of Technology Since 1920*.
New York, N.Y. : Teachers College Press.
- CUBAN, L. (2003). *Oversold and Underused: Computers in the Classroom*. Cambridge, Mass. :
Harvard University Press; New Ed edition
- CUBAN, L. (2004). *The blackboard and the bottom line : why schools can't be businesses*.
Cambridge, Mass. : Harvard University Press.
- DAM, N. van. (1996). *De bibliotheek in het studiehuis (The library in the house of study)*.
Den Haag : Stuurgroep Profiel Tweede Fase Voortgezet Onderwijs.
- DANIELSON, C. (2002). *Enhancing Student Achievement: A Framework for School Improvement*.
Alexandria, VA : Association for Supervision and Curriculum Development.
- DATAANGEL POLICY RESEARCH (2009): *The economic dimensions of literacy in Portugal : a review*. On behalf of the Ministry of Education of Portugal, Office for Education Statistics and Planning.
http://www.dataangel.ca/en/LiteracyPortugal%202009_English_version.pdf
(accessed on 28 January 2010)
- DAVIES, C. and BIRMINGHAM, P. (2002). *Using ICT to enhance the learning experience in the classroom*. Education Libraries Journal, 45(1), 17. London] : University of London, Institute of Education Library.,
www.edstud.ox.ac.uk/.../Education%20Libraries%20Journal%20article.doc
(accessed on 24 January 2010)
- DAY, C. (2004): *A passion for teaching*. London and New York: Routledge Falmer.
- DEPARTMENT OF EDUCATION AND TRAINING, STATE GOVERNMENT OF WESTERN

- AUSTRALIA. (2006) *Evaluation and Accountability: Teacher ICT Skills : Evaluation of the Information and Communication Technology (ICT) Knowledge and Skill Levels of Western Australian Government School Teachers* .
<http://www.det.wa.edu.au/education/accountability/Docs/ICT%20report%20FINAL.pdf>
(accessed on 17 January 2009)
- DEPARTMENT OF EDUCATION AND SCIENCE, Republic of Ireland. (2009)
Education Trends: Key Indicators on Education in Ireland and Europe.
http://www.education.ie/admin/servlet/blobServlet/des_educ_trends_chapter03.htm
page 4.
(accessed on 17 January 2009)
- DEWAR; J. (1998). *The information age and the printing press : looking backward to see ahead*.
Santa Monica, CA : Rand Corporation. <http://rand.org/pubs/papers/P8014/P8014.pdf>
(accessed on 19.05.2006)
- DEWEY, J. (2009). *The School and Society & The Child and the Curriculum* Scotts Valley, CA :
CreateSpace
- DIGITAL STRATEGY OFFICE, New Zealand Government (2007). *New Zealand Digital
Content Strategy* <http://www.digitalstrategy.govt.nz/Resources/Glossary-of-Key-Terms/>
(accessed on 5 March 2010)
- DIJSSELBLOEM, J. (2008). *Tijd voor onderwijs. Parlementair onderzoek der Tweede Kamer: commissie Dijsselbloem* [Time for education. Parliamentary research of the Second Chamber: committee Dijsselbloem]. The Hague, The Netherlands: SDU.
- DUIJN, J. van (2007): "De groei voorbij : over de economische toekomst van Nederland na de *booming nineties*" (Beyond the period of growth : about the economic future of the Netherlands after the *booming nineties*). Amsterdam : De Bezige Bij.
- ECDL (European Computer Driving Licence Foundation. (2008)
<http://www.ecdl.com/countries/index.jsp?1nID=103&2nID=167&nID=291>
(accessed 30 September 2008)
- ECIS (European Council of International Schools), Library and Information Services (2008a).
<http://edmund.ecis.org/committees/subject/library.asp> and
<http://158.64.118.6/wr/user/library/English/Info%20specialists/index.htm>
(accessed on 22 January 2008)
- ECIS (European Council of International Schools), Library and Information Services (2008b). Library
committee web-page.
<http://www.ecis.org/committees/library.htm>
(accessed on 22 January 2008)
- EDMAN, M. (1968). *The Self-Image of Primary School Teachers*. Detroit : Wayne State University
Press.
- EDUSUMMIT (International Summit on ICT in Education). (2009). <http://edusummit.nl/>
(accessed on 22 July 2009)
- eLEARNINGEUROPE.INFO DIRECTORY (2009a). *New literacies and e-Learning Competencies*.
http://www.elearningeuropa.info/directory/index.php?page=doc&doc_id=595&doclng=6
(accessed on 6 February 2009)
- eLEARNINGEUROPE.INFO DIRECTORY (2009b). *Lifelong Learning*.
<http://www.elearningeuropa.info/main/index.php?lng=en&page=glossary&qry=&pn=2&npp=10+-+17k+->
(accessed on 6 February 2009)
- ENSIL Foundation (European Network for School Libraries and Information Literacy) (2008).
www.ensil.eu Accessed on 24 May 2008 and www.ensil-online.org
(accessed on 2 February 2010)
- EUCLID (European Association for Library and Information Education and Research) (2005).

- Directory. <http://www.jbi.hio.no/bibin/euclid/directory.html>
(accessed on 28 February 2005)
- EUROEDUCATION.Net (2008) The European Education Directory. <http://www.euroeducation.net/>
(accessed on 22 March 2010)
- EUROPA. (2009). *Educational reform in the EU: much has been achieved, but much remains to be done.* <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1816>
(accessed on 29 January 2010)
- EUROPEAN COMMISSION, Directorate-General for Education and Culture, Working Committee on Quality Indicators (2000). European Report on the quality of school education : sixteen quality indicators. Brussels : European Commission, Directorate-General for Education and Culture.
http://ec.europa.eu/education/policies/educ/indic/back_en.html and
<http://ec.europa.eu/education/policies/educ/indic/rapinen.pdf>
(accessed on 19 January 2009)
- EUROPEAN COMMISSION, Directorate-General for Education and Culture (2004). *Key competencies for Lifelong Learning : A European Reference Framework.* November 2004.
<http://ec.europa.eu/education/policies/2010/doc/basicframe.pdf>
(accessed on 23.11.2006)
- EUROPEAN COMMISSION, Audiovisual and Media Policies (2007). *Study on the Current Trends and Approaches to Media Literacy in Europe, Final Report.* Study carried out for the Commission by the Universidad Autonoma de Barcelona, 2007.
http://ec.europa.eu/avpolicy/media_literacy/studies/index_en.htm
(accessed on 18 June 2008)
- EUROPEAN COMMISSION, Audiovisual and Media Policies. (2008).
http://ec.europa.eu/avpolicy/media_literacy/index_en.htm.
(accessed on 29 November 2008)
- EUROPEAN COMMISSION, Multilingualism. (2009).
http://ec.europa.eu/education/languages-of-europe/index_en.htm
(accessed on 18 May 2009)
- EUROPEAN SCHOOLNET, (2008) Portal.
http://insight.eun.org/ww/en/pub/insight/misc/country_report.cfm
(accessed on 24 August 2008)
- EUROSTAT (Statistical office of the European Union). (2006).
http://epp.eurostat.cec.eu.int/portal/page?_pageid=1073,46870091&_dad=portal&_sc_hema=PORTAL&p_product_code=NSINAGER .
(accessed on 21 May 2006)
- EUROSTAT. Europese Gemeenschappen , 2006. *Belangrijke feiten en cijfers over Europa en de Europeanen. (Important facts and figures about Europe and the Europeans).* Brussels : Europese Commissie.
- EURYDICE, (2007). *National summary sheets on education systems in Europe and ongoing reforms.* Country : The Netherlands. Brussels : Directorate-General for Education and Culture.
- EURYDICE, (2008). *National summary sheets on education systems in Europe and ongoing reforms.* Portal. Brussels : Directorate-General for Education and Culture.
- FENDER, G. (2004). *Learning to Learn: Strengthening Study Skills and Brain Power.* Nashville, TN : Incentive Publications.
- FERRARI, J. (2010). *National standard to mark teachers. Published in The Australian,* 24 February 2010. <http://www.theaustralian.com.au/news/national-standard-to-mark-teachers/story-e6frg6n6-1225833635556>
(accessed on 24 February 2010)
- FILTER network. (2006). www.filternetwork.org.

(accessed on 25 March 2006)

- FRANCIS, S. (Editor) (1971). *Libraries in the U.S.S.R.* London : Bingley.
- FUCHS, T and WÖRSMANN, L. (2004). *What accounts for international differences in student performance?. A re-examination using PISA data.* *Empirical Economics*, Vol. 32, No. 3, pp. 433-64. <http://www.pisa.oecd.org/dataoecd/29/47/33680685.pdf> (accessed on 24 November 2008)
- FULLAN, M. (2005). *The moral imperative of school leadership.* Thousand Oaks, CA : Corwin Press.
- GANITSKAYA, I. and FROLOVA, I. (1978). *U.S.S.R.* in *Library Service to Children : An International Survey* / edited for the IFLA Section of Children's Libraries by Colin Ray. Munich [etc.] : K. G. Sauer.
- GARDNER, H. and HATCH, T. (1989). *Multiple intelligences go to school: Educational implications of the theory of multiple intelligences.* *Educational Researcher*, 18(8), 4-9.
- GARDNER, H. (2006). *Multiple Intelligences.* New York, N.Y. : Basic Books.
- GARNER, R. (2009). *Foreign language teaching is in decline : Inquiry reveals fall in number of trainee teachers specialising in languages.* *The Independent*. 30 October, 2009. <http://www.independent.co.uk/news/education/education-news/foreign-language-teaching-is-in-decline%20-%201811719.html> (accessed on 30 January 2010)
- GATES, J. (1968). *Introduction to Librarianship.* New York : McGraw Hill.
- GIESBERS, J.H.G.I (1975). *Doelmatige Schoolorganisatie (Efficient School Organisation).* Groningen, The Netherlands : H.D. Tjeenk Willink.
- GOLEMAN, D. (2006a). *Emotional Intelligence. Anniversary Ed.* New York : Bantam Books.
- GOLEMAN, D. (2006b). *Working with emotional Intelligence. Reissue Ed.* New York : Bantam Books.
- GOLEMAN, D. (2007). *Social intelligence : The new science of human relationships.* New York : Bantam Books.
- GORDON, C. (2007). *Re-designing Knowledge Spaces: From Information Literacy to Knowledge Outcomes Part II*, New England Educational Media Association Conference, Boston, 30 March 2007. <http://cissl.scils.rutgers.edu/research/presentations.html> (accessed on 3 January 2009)
- GRAHAM, S. (2004). *Giving up on modern foreign languages : Students' perception of learning French.* *The Modern Language Journal*, 88, ii.
- GRANDSLAM PROJECT (2002). <http://www.gslam.net/images/GrandSlam.proposal.pdf> (accessed on 2 September 2008)
- GREEF, E. (2008). *Information literate librarian.* IASL-LINK YAHOOGROUPS (E-mail). Published on 8 July, 2008.
- GREENFIELD, P. (2009). *Technology and Informal Education: What Is Taught, What Is Learned.* *Science*. Volume 323, Issue 2, January 2009., pp. 69 – 71.
- HALL, M. (1915). *The Development of the Modern High School Library.* *Library Journal*, 40 (1915), pp 627-632.
- HANSSON, H. (2005) *Filtering of scientific e-content.* Paper presented at the International Symposium on Lifelong e-learning : Economic and language filtering of online content; dilemmas, good practice and recommendations, which was held at Middlesex University, 30 November 2005.
- HANSSON, H. (2006) *Teachers' Professional Development for the Technology-Enhanced Classroom and the School of Tomorrow.* *E-Learning*, Volume 1, Number 4, 2006.

- HARCUP, T. (2009). *Journalism: Principles and Practice*. 2nd edition. Thousand Oaks, CA. : Sage Publications.
- HARVEY, L., (2004), *Analytic Quality Glossary*, Quality Research International, <http://www.qualityresearchinternational.com/glossary/lifelonglearning.htm> (accessed on 26 April 2010)
- HAUKSDÓTTIR, S. (2001). *Consortium of Icelandic Libraries : A National Library System*. Reykjavík : National- and University Library.
- HAY, L. (2005) *Student Learning through Australian School Libraries. Part 1: A Statistical Analysis of Student Perceptions in Synergy*, 3 (2). <http://www.slav.schools.net.au/synergy/vol3num2/hay.pdf> . (accessed on 21 January 2009)
- HAY, L. (2006). *Student Learning through Australian School Libraries. Part 2: What students define and value as school library support in Synergy*, 4 (2). http://www.slav.schools.net.au/synergy/vol4num2/hay_pt2.pdf (accessed on 21 January 2009)
- HEALY, J. (1990). *Endangered Minds : Why children don't think – and what we can do about it*. New York, N.Y. : Touchstone
- HEANEY, M. (2009). *Global Library Statistics for the Twenty-First Century*. In: *Library Statistics for the Twenty-First Century World*. IFLA (International Federation of Library Associations and Institutions) Publications 138, Editor: M. Heaney. Munich : K.G. Saur.
- HENRI, J. and ASSELIN, M. (Editors.) (2005). *Leadership Issues in the Information Literate School Community*. Westport, CT : Libraries Unlimited.
- HEWSON, C., YULE, P., LAURENT, D. and VOGEL, C. (2003). *Internet6 research methods : A practical guide for the social and behavioural sciences*. London : Sage.
- HINE, C. (Editor) (2005). *Virtual methods : Issues in social research on the Internet*. Oxford : Berg.
- HIRSCH, E.D. (2007). *The Knowledge Deficit: Closing the Shocking Education Gap for American Children*. Wilmington, MA : Mariner.
- HOBART, M. and SCHIFFMAN, Z. (1998). *Information Ages : Literacy ,Numeracy and the Computer Revolution*. Baltimore, Maryland: The Johns Hopkins University Press.
- HOUSE, E. R. (1978). *Assumptions underlying evaluation models*. Educational Researcher, Vol. 7, No. 3, 4-12 (1978)
- HOWARD, K. (Ed.) (1998). *The Emerging School Library Media Centre : Historical Issues and Perspectives*. Latrobe. Englewood, Colorado : Libraries Unlimited.
- IASL (International Association of School Librarianship, (2005). *Advocacy : Internet (and other) Resources for Developing a School Library* (Compiled by Elizabeth Greef). <http://www.iasl-online.org/advocacy/resources/resources-development.html> (accessed on 20 January 2009.
- IASL (International Association of School Librarianship). (2008a). Portal. www.iasl-online.org. (accessed on 24 January 2008)
- IASL (International Association of School Librarianship). (2008b). *School libraries make a difference to student achievement*. <http://www.iasl-online.org/advocacy/make-a-difference.html> (accessed on 19 January 2009)
- IASL (International Association of School Librarianship). (2009). IASL 2009 Annual Conference Abano Terme (Padua), Italy 2-4 September 2009, including the pre-conference event hosted by the University of Padua on 1 September 2009, entitled *Reading in the digital age: Educating the passionate and critical reader through the school library*. <http://www.iasl-online.org/events/conf/2009/> (accessed on 26 January 2010)
- IEA. (International Association of Educational Achievement). (2006). *PIRLS* (Progress in International

- Reading Literacy Study) *International Study Center, 2006. International Student Achievement in Reading. Chapter 1, exhibit 1.1 : Distribution of Reading Achievement.* Boston, Ma : Lynch School of Education, Boston College.
- IERSEL, S van. (2006) *Generatie Einstein weet het beter (The Einstein generation knows better).* OCW Onderwijsmagazine (2006). nr. 7-8. Zoetermeer, The Netherlands : Ministry of Education.
- IFLA (International Federation of Library Associations and Institutions). (2003a). *Libraries for lifelong literacy.* <http://www.ifla.org/III/gb/prtheme03-05.htm>
(accessed on 14 July 2009)
- IFLA (International Federation of Library Associations and Institutions). World Summit on the Information Society. (2003b). *Promoting the global information commons: A commentary on the library and information implications of the WSIS Declaration of Principles – Our common vision of the Information Society.*
<http://www.ifla.org/III/wsis070604.html>
(accessed on 4 February 2008)
- IFLA (International Federation of Library Associations), (2005a) *Beacons of the Information Society : The Alexandria Proclamation on Information Literacy and Lifelong Learning.* <http://archive.ifla.org/III/wsis/BeaconInfSoc.html>
(accessed on 8 November 2008)
- IFLA (International Federation of Library Associations and Institutions). (2005b). *Our common visions of the Information Society.* <http://www.ifla.org/III/wsis060604.html>
(accessed on 4 February 2008)
- IFLA (International Federation of Library Institutions) (2006a). *School Library Advocacy kit.* <http://www.ifla.org/en/publications/school-library-advocacy-kit>
(accessed on 14 May 2009)
- IFLA (International Federation of Library Institutions) (2006b). Special section for school libraries and resource centres . <http://www.ifla.org/IV/ifla65/papers/037-79e.htm>
(accessed on 15 March 2008)
- IFLA (International Federation of Library Associations and Institutions). (2008a) Portal.
<http://www.ifla.org/III/index.htm> .
(accessed on 4 February 2008)
- IFLA (International Federation of Library Associations and Institutions), (2008b).
<http://www.ifla.org/III/wsis070604.html>
(accessed on 4 February 2008)
- IFLA/FAIFE World Report, (2007). Portal
http://www.ifla.org/faife/report/ifla-faife_world_report_2007-reports.htm
(accessed on 1 November 2008)
- IFLA/UNESCO (1999). *School Library Manifesto : The School Library in Teaching and Learning for All.* The Hague : IFLANET. International Federation of Library Associations and Institutions. <http://www.ifla.org/en/publications/iflaunesco-school-library-manifesto-1999>
(accessed on 14 May 2009)
- IFLA/UNESCO (2002). *School Library Guidelines* The Hague : IFLANET. International Federation of Library Associations and Institutions. <http://www.ifla.org/en/publications/the-iflaunesco-school-library-guidelines-2002>
(accessed on 14 May 2009)
- INSIGHT. (2006). *Pan European survey on ICT use at school* . Report commissioned by the European Union, DG Information Society and Media.
<http://insight.eun.org/ww/en/pub/insight/policy/policies/benchmarking2006.htm>
(accessed on 15 March 2008)
- INTERNET WORLD STATS. <http://www.internetworldstats.com/europa2.htm>

(accessed 1 August 2008)

- JACOBS, H. (Editor) (2010). *Curriculum 21 : Essential Education for a Changing World*. Alexandria, VA : ASCD.
- JAMIESON-PROCTOR, R., WATSON, G., FINGER, G., GRIMBEEK, P. and BURNETT, P. (2006). *Measuring the Use of Information and Communication Technologies (ICTs) in the Classroom*. Gold Coast, Qld. : School of Education and Professional Studies, Griffith University.
http://eprints.usq.edu.au/3662/1/Jamieson-Proctor_Watson_Finger_Grimbeek_Burnett.pdf
 (accessed on 21 January 2009)
- JENSEN, B. (1998). *Some Thoughts on Competency-Based Training and Education*. San Antonio, Texas : Trinity University. <http://www.trinity.edu/rjensen/265wp.htm>
 (accessed on 24 November 2007).
- JOHNSON, L., LEVINE, A. SMITH, R. and SMYTHE, T. (2009). *The 2009 Horizon Report: K-12 Edition*. Austin, Texas: The New Media Consortium.
<http://horizon.nmc.org/wiki/Challenges>
 (accessed on 2 February 2010)
- JOHNSON, S.M. (1986). *Incentives for teachers : What motivates, what matters*. Educational Administration Quarterly, 22, 54-79.
- JOHNSON, V. (2007). *Life after Fenwick : The rise, fall and future of library services for children in Australia*. Adelaide : Auslib Press.
- KAAP, A van der and SCHMIDT, V. (2007). *Naar een leerlijn informatievaardigheden (Towards an information literacy curriculum*. Enschede : Nationaal Expertisecentrum voor leerplanontwikkeling.
<http://www.slo.nl/voortgezet/tweedefase/vakken/01informatica/Publicaties/naareenleerlijn/>
 (accessed on 14 March 2010)
- KALSBECK COLLEGE, (2002). *Neuwe Mediatheek en Studieruimte*. (2002). Woerden : Kalsbeek College
- KALSBECK COLLEGE, (2004). *Het Werkstuk*, Editors: Members of the Media-educatie Commissie (Information/Media Literacy Committee). Woerden, The Netherlands : Kalsbeek College.
- KENNISNET ICT OP SCHOOL (2006). *Four in Balance Monitor 2006 : Evidence on ICT in education*. Zoetemeer, The Netherlands : Stichting Kennisnet ICT op School.
http://resources.eun.org/insight/Four_in_Balance%5BKennisnet%5D.pdf
 (accessed on 25 January 2010)
- KIKIS-PAPADAKIS, K. (2006). *ICT Innovation and Learning : An Evaluation Perspective*. PowerPoint presentation at eLearning Conference, held in Helsinki, Finland in June 2006. <http://www.elearning2006.fi/main.site?action=binary/file&id=6&fid=53>
 (accessed on 12 January 2009)
- KOLLIAS, A. and KIKIS, K. (2005) *Pedagogic Innovations with the use of ICT : From wider visions and policy reforms to school culture*. Barcelona : La Universitat de Barcelona (Ciències de l'Educació)
- KORTE, W. and HÜSING, T. (2006). *EMPIRICA study: Benchmarking Access and Use of ICT in European Schools 2006. Final Report from Head Teacher and Classroom Teacher Surveys in 27 European Countries*.
http://europa.eu.int/information_society/eeurope/i2010/docs/studies/final_report_3.pdf
 and <http://www.elearningeuropa.info/files/media/media11563.pdf>
 (accessed on 2 August 2008)
- KRASHEN, S. (2004). *The power of reading : Insights from the research*. (2e edition). Westport, CT : Libraries Unlimited.
- KUHLTHAU, C. (2004). *Seeking meaning: A process approach to library and information services*.

2nd ed..Westport, CT: Libraries Unlimited.

- KUHLTHAU, C, CASPARI, A. and MANIOTES, L. (2007) *Guided Inquiry: Learning in the 21st Century*. Westport, CT : Libraries Unlimited.
- KUIPER, E. (2007). *Teaching web literacy in primary education*. Amsterdam : Vrije Universiteit <http://dare.uvu.vu.nl/bitstream/1871/10836/1/7533.pdf> (accessed on 26 January 2010)
- LA MARCA, S (2003) : *An enabling adult: the teacher-librarian and the creation of a reading environment*. Submitted in total fulfilment of the requirements of the degree of Doctor of Philosophy. University of Melbourne, Melbourne, Vic
- LANCE, K and LOERTSCHER, D. (2005). *Powering Achievement: School Library Media Programs Make a Difference: The Evidence Mounts*. 3RD edition. Salt Lake City, UT : Hi Willow Research & Publishing.
- LANKSHEAR, C. and KNOBEL, M. (2008) *Digital Literacies : Concepts, policies and practices (New literacies and digital epistemologies)*. Bern, etc. : Peter Lang Publishing.
- LEE, M. And WINZENRIED, A. (2009). *The use of instructional technology in schools: Lessons to be learned*. Camberwell, Vic. : ACER Press.
- LESK, M. (1997). *How much information is there in the world? ?* <http://www.lesk.com/mlesk/ksg97/ksg.html>. Accessed 24.06.2004) and <http://evans-experientialism.freewebspace.com/lesk.htm> (accessed on 19 May 2006)
- LEU, D.J., Jr. (2000). *Literacy and technology: Deictic consequences for literacy education in an information age*. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research*. Vol. 3, pp. 743-770). Mahwah, NJ: Erlbaum.
- LEU, D.J., Jr., KINZER, C.K., COIRO, J., and CAMMACK, D.W. (2004). *Toward a theory of new literacies emerging from the Internet and other information and communication technologies*. In R.B. Ruddell, & N. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed., pp. 1570-1613). Newark, DE: International Reading Association. Available: http://www.readingonline.org/newliteracies/lit_index.asp?HREF=leu/ and <http://www.reading.org/downloads/publications/books/bk502-54-Leu.pdf> (both accessed on 4 May 2010)
- LIBECON, (2000). *LibEcon Millennium study*. <http://www.libecon.org/millenniumstudy> (accessed on 28 September 2008)
- LIBRARY ASSOCIATION OF IRELAND. <http://www.libraryassociation.ie/policy/schools.htm> (accessed on 21 February 2005)
- LINDEN, J. van der, (2000). *Collaborative learning*. In R.J. Simons, J. van der Linden & T. Duffy (Eds.). *New Learning* (pp.37-54). Dordrecht: Kluwer Academic Publishers.
- LINDLOF, T. And Taylor, B. (2002). *Qualitative communication research methods*. 2nd edition. Thousand Oaks, CA. : Sage Publications.
- LINE, M. (1993), *Libraries and Information Services in 25 Years' Time: A British Perspective,* in: F.W. Lancaster, ed., *Libraries and the Future : Essays on the Library in the Twenty-First Century*. New York : Haworth Press, p. 77
- LOERTSCHER, D. and TODD, R. (2003). *We boost achievement ; Evidence-based practice for School Library Media Specialists*. Salt Lake City, UT. : Hi Willow Research and Publishing.
- LOFLAND, J. (1971). *Analyzing social settings*. Belmont, CA : Wadsworth.
- LONG, D. (1991). *Learner Managed Learning: The key to lifelong learning and development*. New York, N.Y. : St. Martin's Press.
- LONSDALE, M. (2003). *Impact of School Libraries on Student Achievement: A Review of the*

- Research, Report for the Australian School Library Association]. Melbourne: Australian Council for Educational Research (ACER).
- LOY, J. (1999). *Million, Billion, Trillion...*
<http://www.jimloy.com/math/billion.htm>
(accessed on 19 May 2006)
- LYMAN, P. and VARIAN, H. (2003). *How much information 2003?*
<http://www.sims.berkeley.edu/research/projects/how-much-info-2003/>
(accessed on 19 March 2006)
- MACHIN, S, McNALLY, S and SILVA, O. (2005). *Investing in Technology: Is there a Payoff in Schools?* <http://www.cepr.org/meets/wkcn/3/3525/papers/Silva.pdf>
(accessed on 21 January 2009)
- MACGILCHRIST, B., REED, J. and MYERS, K. (2006). *The intelligent school*. 2nd edition. London : Sage Publications.
- MACKENZIE OWEN, J.S. (1997): *The future role of libraries in the information age*. Paper presented at the International Summer School on the Digital Library, 10-22 August 1997, Tilburg University, Tilburg, the Netherlands.
- MANN, C and STEWART, Fiona (2005). *Internet communication and qualitative research : A handbook for researching online*. 4th edition. London : Sage publications.
- MARZANO, R. (1992). *A different kind of classroom : Teaching with dimensions of learning*. Alexandria, Virginia : Association for supervision and curriculum development.
- MC DONNELL, K. (2001), *Honey, We lost the Kids . Rethinking childhood in the multimedia age*. Toronto, Canada : Second Story Press.
- MEDIAWIJSHEID. (2008).
<http://www.mediawijsheid.org/pmwiki.php/Mediawijsheid/Mediawijsheid>
(accessed on 4 December 2008)
- MEEK, M. (1988). *How texts teach what readers learn*. Woodchester, U.K. : The Thimble Press.
- MEJER, L and GERE, E. (2008). *Education in Europe - Key statistics 2006*, page 4.. Brussels : EUROSTAT publication : . Population and social conditions, Data in focus.
http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-QA-08-042/EN/KS-QA-08-042-EN.PDF
(accessed on 17 January 2009)
- MINISTERIE VAN DE VLAAMSE GEMEENSCHAP, DEPARTMENT ONDERWIJS (2000) : *Tips voor de invoering en het gebruik van ICT in het onderwijs*. English translation: Ministry of the Flemish Community, Education Department: *Tips for the implementation and the use of ICT in education*. Webpage: ict.onderwijs@vlaanderen
http://www.ond.vlaanderen.be/ICT/archief/ict_brochure.pdf
(accessed on 8 August 2009)
- MINISTERIE VAN ONDERWIJS, CULTUUR EN WETENSCHAP, DIRECTIE COMMUNICATIE. (Ministry of Education, Culture and Science, Department of Communication (2007). *Betere beloning, sterkere positie leraar*. Nieuwsbericht, 23-11-2007. Den Haag : Ministerie van Onderwijs, Cultuur en Wetenschap
http://www.regering.nl/Actueel/Persberichten_ministerraad/2007/november/23/Betere_beloning_sterkere_positie_leraar
(accessed on 14 March 2010)
- MINISTRY OF EDUCATION, GOVERNMENT OF CANADA. (2008). Reach every student : Energizing education.
<http://www.edu.gov.on.ca/eng/document/energize/energize.pdf> page 2, page 8.
(accessed on 4 January 2009)
- MYERS, M. (editor). (2010). *Qualitative research in information systems*. Auckland, N.Z. and Atlanta, GA : Association for Information Systems. <http://www.qual.auckland.ac.nz/>
(accessed on 12 February 2010)

- NATIONAL COMMISSION ON EXCELLENCE IN EDUCATION (1983). *An open letter to the American people : A nation at risk : The Imperative For Educational Reform*.
<http://www2.ed.gov/pubs/NatAtRisk/index.html>
 (accessed on 28 January 2010)
- NORDTVLEIT, H. (2005). *Literacy for Life : Family Literacy*. Background paper prepared for the UNESCO Education for All Global Monitoring Report 2006.
<http://unesdoc.unesco.org/images/0014/001460/146074e.pdf>
 (accessed on 24 November 2007)
- NORRIS, P. (2001). *Digital divide: Civic engagement, information poverty and the internet*. Cambridge : Cambridge University Press.
<http://books.google.nl/books?hl=nl&lr=&id=DOCSHNEfRIAC&oi=fnd&pg=PP11&dq=global+languages+digital+divide&ots=QvskH8C3l8&sig=HAXmxRoAuXC4jQlL6Z6HUTG7IY#v=onepage&q=&f=false>
- NUT (National Union of Teachers). (2007). "There is no such thing as a part time teacher" : A NUT Survey. http://www.teachers.org.uk/resources/pdf/part-time_report.pdf
 (accessed on 17 January 2009)
- OBBERG, D., HAY, L and HENRI, J (1998). *The Principal's Role in Developing Information Literacy*. IASL Newsletter, March 1998. <http://www.iasl-online.org/research/principals.html>
 (accessed on 6 May 2009)
- OECD (Organisation for Economic Co-operation and Development). (2004) *OECD Identifies "Disappointing" Use of ICT in Upper Secondary Schools*, 03.02.2004.
http://www.oecd.org/document/18/0,2340,en_2649_34515_26302546_1_1_1_1,00.html
 (accessed on 27 January 2006)
- OECD (Organisation for Economic Co-operation and development), 2006. *Assessing Scientific, Reading and Mathematical Literacy*.
http://www.oecd.org/document/33/0,3343,en_32252351_32236191_37462369_1_1_1_1,00.html
 (accessed on 2 August 2008)
- OECD (Organisation for Economic Co-operation and Development), (2008) *The purpose of schools*
<http://www.oecd.org/dataoecd/14/46/33787319.pdf>
 (accessed on 4 December 2008)
- ONGUARDONLINE (2010). *Net Cetera : Chatting with kids about being online*.
<http://www.onguardonline.gov/pdf/tec04.pdf>
 (accessed on 1 February 2010)
- OPHIR, E., NASS, C and WAGNER, A. (2009). *Cognitive control in media multitaskers*. Published in: PNAS (Proceedings of the National Academy of Sciences of the United States of America, 25 August, 2009; 2009 106:15583-15587;
- OPPENHEIMER, T. (2003). *"The flickering Mind : The false promise of technology in the classroom and how learning can be saved"*. New York, N.Y. : Random House. Summary:
http://books.google.nl/books?id=WtQtLgxZeQC&dq=all+this+change+has+lead+to+a+culture+of+the+flickering+mind&source=bl&ots=35Qjvileug&sig=yan6lCv7y5Hkz-1b87rEQNVC6Mc&hl=nl&ei=vguRS8iROJfq-QbiifSaBg&sa=X&oi=book_result&ct=result&resnum=1&ved=0CAYQ6AEwAA
 (accessed on 5 March 2010)
- PAPERT, S. (1993). *The children's machine : Rethinking school in the age of the computer*. New York, N.Y. : Basic Books.
- PAPERT, S. and RESNICK, M. (1995). *Technological Fluency and the Representation of Knowledge*. Proposal to the National Science Foundation, MIT Media Laboratory.
- PATTON, M. QUINN (1980) *Qualitative Evaluation Methods* . Beverly Hills, CA : Sage Publications.

- PATTON, M. QUINN (1987) *How to use qualitative methods in evaluation*. Newbury Park, CA : Sage Publications.
- PATTON, M. QUINN (2008) *Utilization- Focused Evaluation*. 4th edition. Thousand Oaks, CA : Sage Publications.
- PEMBERTON, A. (2006) *Information for Faculty About Library Instruction and Information Literacy*. Wilmington & William Madison Randall Library , University of North Carolina.
<http://library.uncw.edu/web/instruction/faculty.html>
 (accessed on February 2009)
- PINK, H. (2006). *A whole new mind: Why right brainers will rule the future*. Updated Edition. New York : Riverhead Books
- PISA (Program for International Student Assessment (PISA). (2003). *Introduction to PISA*.
<http://nces.ed.gov/Surveys/PISA/pisa2003highlights.asp>
 (accessed on 21 November 2007)
- PIRLS. The Reading Literacy of U.S. Fourth-Grade Students in an International Context, Results from the 2001 and 2006 Progress in International Reading Literacy Study (PIRLS) Table B-3, page 29. November 2007.
<http://nces.ed.gov/pubs2008/2008017.pdf>
 (accessed on 7 August 2008)
- POLL, R. and BOEKHORST, P. Ter. (2007). *Measuring quality : Performance measurement in libraries*, 2nd revised edition. Munich : Saur.
- POPULATION REFERENCE BUREAU, (2009). *World Population Data finder*.
<http://www.prb.org/Datafinder/Geography/MultiCompare.aspx?variables=36®ions=197,175,208,187>
 (accessed on 9 March 2009)
- POSTMAN, N. (1982). *The disappearance of childhood*. New York : Delacorte Press.
- POSTMAN, N. (1985). *Amusing ourselves to death :public discourse in the age of show business*. New York : Viking Press.
- PRABHU, M. T. (2010). *Technology gives kids constant media access : Sharp rise in students' media use challenges educators to make lessons more engaging, experts say*. 22 January, 2010. eSchool News. <http://www.eschoolnews.com/2010/01/22/technology-gives-kids-constant-media-access/>
 (accessed on 26 January 2010)
- PRESNKY, M. (2001). *Digital natives, digital immigrants*. *On the Horizon*, MCB University Press, Vol. 9 No. 5, October 2001, pp.1-9.
<http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
 (accessed on 4 May 2010)
- PROBERT, E. (2009). *Information literacy skills: Teacher understandings and practice*. *Computers & Education*, Volume 53, Issue 1, August 2009, Pages 24-33.
- PUNCH, K. (2009). *Introduction to research methods in education*. London : Sage publications.
- RAAD VOOR CULTUUR. (2005). *Mediawijsheid, de ontwikkeling van nieuwe burgerschap. (Media wisdom and the development of new citizenship)*. Den Haag : Raad voor Cultuur.
http://www.cultuur.nl/files/pdf/advies/Mediawijsheid_in_Perspectief.pdf
 (accessed on 4 December 2008)
- RAY, C. (Editor). (1978). *Library Service to Children : An International Survey /* edited for the Section of Children's Libraries. IFLA (International Federation of Library Associations and Institutions) . Munich [etc.] : K. G. Sauer
- RAY, C. (Editor). (1979). *Library service to schools and children*. Paris : UNESCO.
- RBE (Portuguese School Libraries Network), (2008). : *School Libraries Network*.

- http://www.reb.min-edu.pt/np4/?newsId=272&fileName=PDFS_RBE_FINAL08_opt.pdf
(accessed on 15 September 2008).
- REINKING, D. (1998). Synthesizing technological transformations of literacy in a post-typographic world. In D. Reinking, M.C. McKenna, L.D. Labbo, & R.D. Kieffer (Eds.), *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. xi-xxx). Mahwah, NJ: Erlbaum.
- RESNICK, M. (2002a). *Revolutionizing Learning in the Digital Age*. In M. Devlin, R. Larson & J. Meyerson (Eds.), *The Internet and the University: 2001. Forum* (pp. 45-64): EDUCAUSE, Forum for the Future of Higher Education.
<http://net.educause.edu/ir/library/pdf/ffpiu014.pdf>
(accessed on 26 January 2010)
- RESNICK, P., ZECKHAUSER, R. and AVERY, C. (1994) *Roles for Electronic Brokers*. In G. W. Brock (Ed.) *Toward a Competitive Telecommunication Industry - Selected Papers from the 1994 Telecommunications Policy Research Conference* Mahwah, N.J. : Lawrence Erlbaum.
- REYNOLDS, D. (Editor) (2002). *World class schools : international perspectives on school effectiveness*. London : Routledge Falmer.
- RICE, R. (2002). *Primary Issues in Internet Use: Access, Civic and Community Involvement, and Social Interaction and Expression*. In L. Lievrouw & S. Livingstone (Eds.), *Handbook of New Media: Social Shaping and Consequences of ICTs*, pp. 105–129 London: Sage Publications Ltd
- RIDEOUT, V. J., FOEHR, U. G. and ROBERTS, D. F. (2010). *Generation M² : Media in the lives of 8- to 18-Year-olds : A Kaiser Family Foundation Study*. Washington, D.C. : The Henry J. Kaiser Family Foundation. <http://www.kff.org/entmedia/upload/8010.pdf>
(accessed on 26 January 2010)
- RIEDLING, A. (2006). *Learning to Learn: A Guide to Becoming Information Literate in the 21st Century*. 2nd edition. New York, N.Y. : Neal-Schuman Publishers.
- RIKXVOORT, B. van and REIJENGA, M.. (2002). *Kwaliteit in the mediatheek : een momentopname. (Quality in the mediatheek : a snapshot)* Deventer, The Netherlands : Saxion Hogeschool Ijselland, Instituut Informatica en Informatiemanagement.
- RITSEMA, B. (2002): *Als ze maar gelukkig zijn : over kinderen, opvoeding en onderwijs. (As long as they're happy: about children, upbringing and education)*. Amsterdam : Prometheus.
- ROSENBERG, D. (2003). *Early Modern Information Overload*. 64(1) *Journal of the History of Ideas* 1-9;
- SAUNDERS, F. (2009). *Multitasking to distraction*. Published in the *American Scientist*, Nov/Dec, 2009, Vol. 907, Nr. 6, page 455.
- SCHEERENS, J. (2004). Perspectives on Education Quality, Education Indicators and Benchmarking, *European Educational Research Journal*, 3(1), pp. 115-138
<http://dx.doi.org/10.2304/eeerj.2004.3.1.3> Accessed on 19 January 2009.
- SCHNIEDERJÜRGEN, A. (Editor). (2007). *World guide to Library, Archive, and Information Science Education*. IFLA (International Federation of Library Associations and Institutions) Publications 128-129. Third new and completely revised. Munich : K.G. Saur.
- SCHOOL LIBRARIES WORK: Academic Research Paper*. (2008). Scholastic Library Publishing.
http://librarypublishing.scholastic.com/content/stores/LibraryStore/pages/images/slw_06.pdf and
http://www2.scholastic.com/content/collateral_resources/pdf/s/slw3_2008.pdf
(accessed on 8 January 2009)
- SCHOUWENAAR, J. (1999) : *F. Kalsbeekscholengemeenschap : Op weg naar de toekomst. (F. Kalsbeek School Groep : On the way to the future)*. Woerden, The Netherlands : Kalsbeek College

- SCHOUWENAAR, J. and KOEBRUGGE, H. (2006). *Locatiebeleidsplan, Locatie SPK 2006-2008* (Strategy Document for the Schilderspark Location, 2006-2008), 7 December 2006. Woerden : Kalsbeek College.
- SCHWEIZER, M. (Editor) (2005). *World guide to Library, Archive, and Information Science Associations*. IFLA (International Federation of Library Associations and Institutions) Publications 112 – 114. Second completely revised and expanded edition. Munich : K.G. Saur.
- SHERMAN, R. and WEBB, R. (Editors) (1988). *Qualitative research in education : focus and methods*. London : Falmer.
- SINGH, D. (1993). *An international comparative study of school libraries : dissertation in partial fulfilment of the requirements for the degree of Doctor of Philosophy*. Tallahassee, Florida : The Florida State University, School of Library and Information Studies.
- SKINNER, B. (1954), "The Science of Learning and the Art of Teaching", *Harvard Educational Review*, 24, 86-97.
- SKINNER, B (1958), "Teaching Machines", *Science*, 128, October, 969-77.
- SLA/IASL (School Library Association/International Association of School Librarianship). (2004). *The 2004 SLA/IASL Joint Conference Dublin, Republic of Ireland*. <http://www.iasl-lo.org/conference2004.html> . (accessed 23 June 2004)
- SLAM Project (2000). <http://www.karmoyped.no/slam/> (accessed on 2 September 2008)
- SLAMIT Project, (2006). <http://www.slamit.org/> (accessed on 2 September 2008)
- SMEETS, R. (Editor). (2008) *ICT in the school: the organisation and the role of the school library and the school librarian*. Amsterdam : Barlaeus Gymnasium.
- SMITH, M. (2002 and 2008). *Howard Gardner and the multiple intelligences*. The encyclopaedia of Informal education. www.infed.org/thinkers/gardner.htm (accessed on 19 December 2008)
- SNYDER, T. and HOFFMAN, C. (2002). *Digest of Education Statistics, 2001*. Jessup, MD : ED Pubs.
- SOLOMON, G. and SCHRUM, L. *Web 2.0 : New tools, New schools*. (2007). Washington, D.C. : International Society of Technology in Education (ISTE). http://books.google.nl/books?hl=nl&lr=&id=ZKKQMLir_mMC&oi=fnd&pg=PT12&dq=web+2.0+applications+for+educators&ots=OjG98HTUAP&sig=Vjs4iCFLU9BZr5oquzWa3AEVDx4#v=onepage&q=web%20.0%20applications%20for%20educators&f=false (accessed on 31 January 2010)
- SONTAG, L., HAAF, J. van, LINDEN, R. van der and MEIJS, M. (2004). *Onderwijsvernieuwing en ICT in het voortgezet onderwijs (Educational renewal in secondary education)*. Tilburg : IVA. <http://www.minocw.nl/documenten/brief2k-2004-doc-20216f.pdf> (accessed on 21.12.2007)
- STEYER, J. (2002): "The other parent : The inside story of the Media's effect on our children. New York, N.Y. : Atria.
- STRICHART, S. and MANGRUM, C. (2001). *Teaching Learning Strategies and Study Skills To Students with Learning Disabilities, Attention Deficit Disorders, or Special Needs*. Boston, Mass. : Allyn & Bacon.
- STROMQUIST, N. (Editor) (2002). *Education in a globalized World : The connectivity of economic power, technology and knowledge*. Plymouth : Rowan & Littlefield.

- STRONGE, J. GAREIS, C. and LITTLE, C. (2006). *Teacher Pay & Teacher Quality : attracting, developing, & retraining the best teachers*. Thousand Oaks, California : Corwin Press.
- SUÁREZ-OROZCO, M. AND QIN-HILLIARD, D. (Editors) (2004). *Globalization : Culture and Education in the new Millennium*. Berkley : University of California Press.
- TAYLOR, S. (2002) : *The tending instinct: How nurturing is essential to who we are and how we live*. New York. N.Y.: Times Books.
- THOMAS, N. (2004): *Information Literacy and Information Skills Instruction : Applying research to practice in the School Library Media Center*. Westport, Connecticut : Libraries Unlimited.
- THOMAS, S., JOSEPH, C., LACCETTI, J., MASON, B., MILLS, S., PERRIL, S. and PULLINGER, K. (2007). *Transliteracy: Crossing divides*. *First Monday*, 12 (12), 3 December 2007. <http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2060/1908> (accessed on 15 July 2009)
- THOMPSON, J. (2008) *Web 2.0 application for educators*. Buffalo : Buffalo State College. <http://www.slideshare.net/professor01/web-20-applications-for-educators> (accessed on 31 January 2010)
- TODD, R. (2003a). *Learning in the Information Age School : Opportunities, Outcomes and Options*. Keynote paper: International Association of School Librarianship (IASL) Conference Dublin, South Africa, 2003. Keynote paper, IASL conference 2003, virtual session: paper from Ross Todd. from: <http://www.iasl-slo.org/conference2003-virtualpap.html>. (accessed on 27.May 2007)
- TODD, R. (2003b) *Irrefutable evidence: how to prove you boost student achievement*. *School Library Journal*, 49(4), 52-54.
- TODD, R., KUHLTHAU, C. and OELMA (2004). *Student Learning Through Ohio School Libraries*: <http://www.oelma.org/StudentLearning/documents/OELMAResearchStudy8page.pdf> (accessed on 10 February 2009)
- TODD, R. (2007). *Re-Designing Knowledge Spaces: From Information Literacy to Knowledge Outcomes*, PowerPoint presentation at the New England Educational Media Association Conference, Boston. 30 March 2007. <http://cissl.scils.rutgers.edu/research/presentations.html> (accessed on 3 January 2009)
- TOLZMANN, D. (2001). *The memory of mankind : The story of libraries since the dawn of history*. New Castle, Delaware : Oak Knoll Press.
- TONDEUR, J, BRAAK, J. van and VALCKE, M. (2006) *Curricula and the use of ICT in education: Two worlds apart?* (Ghent : Department of Education, Ghent University. Published in *British Journal of Educational Technology* (Online Early Articles). doi:10.1111/j.1467-8535.2006.00680.x . <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1467-8535.2006.00680.x?cookieSet=1&journalCode=bjet> (accessed on 28 January 2007)
- TROUW. (2008). *Vernietigende kritiek op kwaliteit onderwijs (Destructive criticism on quality education)* http://ww.trouw.nl/hetnieuws/nederland/article916017.ece/Vernietigende_kritiek_op_kwaliteit_onderwijs#readmore (accessed on 15 March 2008)
- TWEEDE KAMER (Lower House of the Dutch Parliament). (2007). <http://www.tweedekamer.nl/kamerleden/commissies/TCO/sub/index.jsp#1> (accessed on 4 December 2008)
- TYACK, D. and CUBAN, L. (1997). *Tinkering towards Utopia : A Century of Public School Reform*. Cambridge, Mass. : Harvard University Press.
- UNDP (United Nations Development Programme, 2008. *Human Development report 2007/2008*. http://hdr.undp.org/en/media/HDR_20072008_EN_Complete.pdf

(accessed on 28 August 2008)

- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (1966). *Recommendations concerning the Status of Teachers*. Adopted by the Special Intergovernmental Conference on the Status of Teachers in Paris on 5 October 1966 (UNESCO, 1966). http://www.unesco.org/education/pdf/TEACHE_E.PDF (accessed on 3 August 2009)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation). (2002a) “*Training Manual On Competency Based Learning Assessment*”, <http://unesdoc.unesco.org/images/0012/001252/125294e.pdf> (accessed on 6 February 2009)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation). (2002b) *Information and Communication Technologies in teacher education : A planning guide*. Paris: UNESCO. <http://unesdoc.unesco.org/images/0012/001295/129533e.pdf> (accessed on 4 May 2010)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2005): *Education for All (EFA) Global Monitoring Report 2005 – The quality imperative*. Paris: UNESCO. <http://unesdoc.unesco.org/images/0013/001373/137333e.pdf> (accessed on 24 November 2007)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2006a): *Education for All (EFA) Global Monitoring Report 2006 - Literacy for Life*. Paris: UNESCO. http://www.unesco.org/education/GMR2006/full/chapt1_eng.pdf and <http://www.unesco.org/en/efa-international-coordination/the-efa-movement/efa-goals/lifelong-learning/> (accessed on 24 November 2007)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation), Institute of Statistics (2006b). *Pilot survey on library statistics*. http://www.uis.unesco.org/ev.php?ID=6970_201&ID2=DO_TOPIC (accessed on 12 December 2008) and http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=121&IF_La (accessed on 15 September 2008)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation), (2007). *Regional overview: Central and Eastern Europe and Central Asia : Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0013/001390/139002e.pdf> (accessed on 3 November 2008)
- UNESCO. United Nations Educational, Scientific and Cultural Organisation , 2008a. *Education for All Global Monitoring Report*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0015/001547/154743e.pdf> (accessed on 4 November 2008)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2008b): *Technology and Learning - definitions*. Paris: UNESCO. <http://www.unesco.org/education/educprog/lwf/doc/portfolio/definitions.htm> (accessed on 6 February 2009)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation), Institute of statistics. (2008c). *Pilot Survey of Academic and Public Libraries*. http://www.uis.unesco.org/ev.php?ID=7253_201&ID2=DO_TOPIC (accessed on 26 August 2008)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2008c), *Summary of outcomes of the conference entitled: “Addressing Literacy Challenges in Europe with a sub-regional focus: Building Partnerships and Promoting Innovative Approaches”* UNESCO Regional Conferences in Support of Global Literacy was held in Baku, Azerbaijan from 14-16 May 2008 http://www.unesco.org/education/literacy/summary_outcomes-Azerbaijan_final.pdf (accessed on 12 January 2009)

- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2009a). *Education for All (EFA) Global Monitoring Report : Overcoming inequality: why governance matters*. Paris : UNESCO. <http://unesdoc.unesco.org/images/0017/001776/177683E.pdf> and <http://www.unesco.org/en/efa-international-coordination/the-efa-movement/efa-goals/lifelong-learning/> (accessed on 24 November 2008)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2009b). *ICT competency Standards for Teachers (CST)*. Paris : UNESCO. http://portal.unesco.org/ci/en/ev.php-URL_ID=22997&URL_DO=DO_TOPIC&URL_SECTION=201.html (accessed on 7 February 2009)
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) (2009c). *The six Education for All goals*. Paris : UNESCO http://portal.unesco.org/education/en/ev.php-URL_ID=42579&URL_DO=DO_TOPIC&URL_SECTION=201.html , and Goal 3. <http://www.unesco.org/en/efa/the-efa-movement/efa-goals/lifelong-learning/> (accessed on 2 April 2010).
- UNESCO (United Nations Educational, Scientific and Cultural Organisation), (2009d). *Projects: ICT in Education – Policy*. Bangkok : UNESCO. <http://www.unescobkk.org/education/ict/ict-in-education-projects/policy/> and <http://www.unescobkk.org/education/ict/ict-in-education-projects/policy/> (accessed on 7 June 2009)
- UNICEF (United Nations Children's Fund). (2000). *Defining Quality in Education*. New York, UNICEF. <http://www.unicef.org/girlseducation/files/QualityEducation.PDF> (accessed on 29 January 2010)
- UNICEF. (United Nations Children's Fund), 2004. <http://www.unicef.org/sowc05/english/fullreport.html>, Table 5, education. (accessed on 31 October 2008)
- UNICEF (United Nations Children's Fund), 2007. *Breaking the cycle of exclusion : Roma children in South East Europe*.2007. http://www.unicef.org/ceecis/070305-Subregional_Study_Roma_Children.pdf (accessed on 19 August 2008)
- UNITED NATIONS (2000). *United Nations Millennium Declaration*, Resolution adopted by the General Assembly of the United Nations 8 September 2000. declaration 55/2 (A/55/L.2) <http://www.un.org/millenniumgoals/> (accessed on 25 July 2009)
- US DEPARTMENT OF EDUCATION, IES (Institution of Education Sciences) (2007). WWC Topic Report, Character Education <http://www.positiveaction.net/content/PDFs/Character-education-topic-report.pdf>
- US DEPARTMENT OF EDUCATION, IES (Institution of Education Sciences) (2009). *Character Education Abstract*. http://ies.ed.gov/ncee/wwc/reports/character_education/abstract.asp (accessed on 6 February 2009)
- VEEN, K. van. (2003). *Teachers' emotions in a context of reforms*. Proefschrift ter verkrijging van de graad van doctor aan de Katholieke Universiteit Nijmegen. Nijmegen, The Netherlands : Katholieke Universiteit (Doctoral dissertation).
- VEEN, M. van (Editor.). (2006). *Door de bomen het bos.(Look at the woods through the trees)*. You can't see the woods for the trees) Heerlen : Open Universiteit Nederland.
- VIRKUS, S. (2003). *Information literacy in Europe: a literature review*. Information Research, Vol. 8 No. 4, July 2003 <http://informationr.net/ir/8-4/paper159.html> . (accessed on 07 July 2007)

- WAGNER, T. (2008). *The global achievement gap*. New York, N.Y. : Basic Books.
- WALTERS, D. (2007). *Leraar is te soft : Lerarentekoor niet alleen met hoger salaris op te lossen* (Teachers are too soft : higher salaries is not the only way to solve the problem of the shortage of teachers. Rotterdam : NRC Handelsblad. 20 October 2007, page 48.
- WARLICK, D. (2002). *Raw materials of the mind : Teaching and learning in information & technology rich schools*. Raleigh, North Carolina : The Landmark Project, 3rd edition.
- WEBSTER'S ON-LINE DICTIONARY. (2009).
<http://www.websters-online-dictionary.org/definition/Literacy>
 (accessed on 6 February 2009)
- WEGGEMAN, M. (2007). *Leidinggeven aan professionals? Niet doen! : over kenniswerkers, vakmanschap en innovatie. (Giving leadership to professionals? – Don't do it! : about knowledge professionals, professional skills and innovation)*. Scheidam : Scriptorum.
- WHITE HOUSE (2010) *Reform and Invest in K-12 Education*.
<http://www.whitehouse.gov/issues/education>
 (accessed on 29 January 2010)
- WIJNBERG, R. (2007). *Boeiuh : Het stille protest van de jeugd (Boeiuh : the quiet protest from the young people)*. Amsterdam : Prometheus.
- WIKIPEDIA (2009a). *Digital Divide*. http://en.wikipedia.org/wiki/Digital_divide#cite_note-Rice105-0
 (accessed on 5 June 2009)
- WIKIPEDIA (2009b) *Virtual Learning Environment*.
http://en.wikipedia.org/wiki/Electronic_learning_environment
 (accessed on 12 January 2009)
- WIKIPEDIA (2010a). *Computer-mediated communication (CMC)*.
http://en.wikipedia.org/wiki/Computer-mediated_communication
 (accessed on 14 February 2010)
- WIKIPEDIA (2010b). *Education Reform*. http://en.wikipedia.org/wiki/Education_reform
 (accessed on 28 January 2010)
- WIKIPEDIA (2010c). *Theory of multiple intelligences*.
http://en.wikipedia.org/wiki/Theory_of_multiple_intelligences .
 (accessed on 2 April 2010)
- WILLARD, N (2007). *Cyber-Safe Kids, Cyber-Savvy Teens : Helping young people learn to use the Internet safely and responsibly*. San Francisco : John Wiley & Sons.
- WILLIAMS, D, WILSON, K., RICHARDSON, A., TUSON, J and COLES, L.. (1998). *Teachers' ICT skills and knowledge needs : Final Report to SOEID*. Aberdeen, Scotland : Department of Information Management, Aberdeen Business School, The Robert Gordon University. <http://www.scotland.gov.uk/library/ict/append-title.htm>
 (accessed on 17 January 2009)
- WILLIAMS, D and WAVELL, C. (2001). *The impact of the school library resource centre on learning*. Library and Information Commission Research Report 112. Aberdeen : The Robert Gordon University.
- WILLIAMS, D. and WAVELL, C. (2006). *Information literacy in the classroom : secondary school teachers' conceptions*. Aberdeen, Scotland : Department of Information Management, Aberdeen Business School, The Robert Gordon University.
- WILLIAMS, R. (2000). *How Much information is there? Data powers of ten*.
<http://www.sims.berkeley.edu/research/projects/how-much-info/datapowers.html>
 (accessed on 19 May 2006)
- WILLMS, J.D. (2006). *Learning Divides : Ten Policy Questions about the performance and equity of*

- schools and schooling systems*. Montreal : UNESCO Institute of Statistics.
<http://www.uis.unesco.org/template/pdf/EducGeneral/WP5LearningDivides.pdf>
(accessed on 20 June 2009)
- WILSON, T. (2007). *World list of schools and departments of information science, information management and related disciplines*. <http://informationr.net/wl/>
(accessed on 21 January 2009)
- WINN, M. (2002). *The Plug-in Drug : Television, computers and family life*. New York, N.Y. : Penguin.
- WOOLLS, B and LOERTSCHER, D. (Editors.) (2006). *The whole school library handbook*. Chicago, ALA (American Library Association)
- WORLD BANK (2008a) DDP Data query, WDI World Development Indicators.
<http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport>
(accessed on 6 September 2008)
- WORLD BANK. (2008b). *Gross national income per capita 2007, Atlas method and PPP*. World Development Indicators database, World Bank, 1 July 2008.
<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>.
(accessed on 1 August 2008)
- WSIS (World Summit of the Information Society). (2003). Geneva, Switzerland.
<http://www.worldsummit2005.org/>
(accessed on 24 November 2007)
- WRESCH, W. (1996). *Disconnected: Haves and Have-Nots in the Information Age*. Piscataway, N.J. : Rutgers University Press
- WRIGHT, A. (2007). *Glut : Mastering information through ages*. Washington, D.C. : Joseph Henry Press.
- YOUTH LEARN (2010). *Intro to Inquiry Learning*. Newton, MA : Education Development Center.
<http://www.youthlearn.org/learning/general-info/our-approach/intro-inquiry-learning/intro-inquiry-learning>
(accessed on 28 January 2010)