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Learning through Work Experience: an investigation into the ways in which UK managers learn at work with special reference to the National Health Service.

Michael Bernard Saunders

A thesis submitted in partial fulfilment of the requirements of the Council for National Academic Awards for the degree of Master of Philosophy.

November 1990

Middlesex Polytechnic in collaboration with Wandsworth Health Authority and St.George's Hospital

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ABSTRACT

Learning through Work Experience: an investigation into the ways in which UK managers learn at work with special reference to the National Health Service.

Michael Bernard Saunders

A summary of 21 key points covering the concepts and ideas concerning managerial learning at work of Professor Alan Mumford was produced. The 21 points were used to design a questionnaire around 4 headings; Learning Needs, Human and Organisational Development, Learning Opportunities and Management of Learning.

The questionnaire was used together with a 2 part interview to verify Mumford's hypothesis in 3 Health Districts with a sample of 60 managers. The research was in two stages, a pilot and a main study.

The writings of Mumford were compared with other studies and writing in the field of managerial learning at work, the link between effective learning and effective management, the importance of learning how to learn, the concept of learning as a process and methods of promoting learning in the work place.

The results were analysed by Database III. Analysis showed that the Mumford hypothesis was generally true in the context of the sample, though there were important variables such as

location of staff, type of discipline and, in some cases, age of the respondent.

The research suggested that there is considerable scope to promote actively the use by managers of learning opportunities latent in day-to-day work. Possible initiatives are positive policies which promote a learning environment with self-directed learning and personal learning plans.

SECTION 1: INTRODUCTION

Aim

The aim of the research investigation was to test out, in a practical situation, the hypothesis of Professor Alan Mumford concerning managerial learning at work. The hypothesis is broadly concerned with describing the circumstances within which managers learn at work and why this is likely to be more effective than learning away from work in a formally contrived situation with a specific and publicised learning objective.

The Mumford hypothesis

Mumford argues that the day-to-day work situation and environment provides a powerful arena for managers to learn. There is a reality there which is more motivating and relevant to learning. However, he emphasises the potential learning in both descriptive terms, i.e. the situation, and in prescriptive terms, i.e. what should happen, what steps the manager should take to make best use of these latent opportunities. He says that these opportunities will not be taken up without some form of intervention, some facilitation strategy. Managers must be helped to recognise their particular learning styles, their learning needs, how they can identify and use learning opportunities which are inherently part of their work which they may not accept or perceive.

The study, then, took on several aspects. One was to "package" the Mumford hypothesis and test out its key

components to see the extent to which the ideas held together in a particular situation. Two, was to try to identify a pattern of intervening variables affecting the extent to which managerial learning at work took place. Three, following the identification of the variables in two, was to build up a practical model which could be used by the research-base client to promote in a more active fashion the possibilities identified by Mumford. The first two stages are the subject of the research report, the third is part of the continued relationship with the research organisation.

The site of the research

The study was based on the National Health Service and, more particularly, in 3 Health Districts in the South West Thames Region. A pilot study was carried out in one of these Health Districts and the main study in all 3 Districts soon afterwards. A sample of 5 staff members was taken for the Pilot Study and a planned sample of 20 from each of the 3 Districts for the main study. The managers investigated were from a variety of disciplines and specialities and were, in the main, heads of departments or sections and their immediate deputies. The reason for this focus of the research was that the Teaching Hospital concerned had expressed an interest and provided candidates for both the pilot and the main study. The District Personnel Officer also made personal contact with neighbouring Health Districts to enable the study to be extended. In addition, the National Health Service is

noticeably significant for its attraction to organisational research, also for its experience and range of activity in the field of management development.

Limits of the survey

The study was confined to 3 Health Districts, all in outer suburban parts of London, extending into Surrey. Each District comprised the full range of acute and specialist hospital units, mental illness, mental handicap and geriatric as well as community health services and Health Centres. It was felt that a sample of 20 candidates for interview in each District would suffice to create a sufficiently significant data bank. Candidates were drawn from administrative, nursing, works and professional/technical staff categories. No medical doctors were included in the survey.

The general designation of "manager" is, in most large organisations, an illusive one. Where does supervision end and management begin? Somewhat arbitrary criteria were therefore selected since it was felt that there would be sufficient opportunity in a wide variety of NHS managerial roles to test further the Mumford hypothesis. The administrative staff ranged from Scales 4-18, perceived as junior and middle managers, nursing managers ranged from Clinical Nurse Specialist to Assistant Director level and the remainder as Head or Deputy Head of their appropriate functions.

Sequence of investigation

The pilot study and preliminary analysis took place in September 1985, followed by a period in which the initial questionnaire was adjusted. Certain changes in both wording and structuring of the interviews were made, based on discussions and agreement with the first research District. Approaches were made to the second and third Districts and interviews took place from early 1986 onwards. Some of the problems encountered in 1986 and early 1987 were organisational changes brought about by the Griffiths Report on the appointment of Unit and District General Managers and their staffs. This meant a degree of staff turnover and movement, also uncertainty. In some cases substitutes were arranged for interviews at fairly short notice. It was felt by the Personnel or Training Officer in each District that this change should not unduly influence the findings of the research one way or the other since, in the last decade, the Health Service has been subjected to an almost constant process of organisational change. By November 1987 all interviews had taken place and processing of the data could take place. Initial feedback to all participants was given in early 1988 and meetings then took place with the Health Districts to look at some of the organisational implications as far as employee development policies were concerned.

Preliminary conclusions

From this analysis the picture emerged that there are abundant learning opportunities within the Health Service which are available potentially to every manager. However, many did not perceive these opportunities as learning situations or did not make full use of them. This seemed to be more because of a lack of appreciation of what learning is about than because of inherent deficiencies in the situation. Learning needs were largely seen as discrete 'management type' techniques or new pieces of knowledge/information to be acquired. Few saw learning as self-awareness, personal skills of communicating and problem solving. There were, of course, some important exceptions mainly regarding administrative staff and those working in the Community sector, i.e. not hospital-based. These areas of work seemed to be offering wide range contacts, visits, different operational sites and a rich variety of work activities. Level seemed less important than the nature of the work.

In summary, it is difficult to say that the Mumford hypothesis does not hold good in the Health Service as reflected by this study. However, the proposition is limited by a wide ranging list of factors which inhibit the full force of Mumford's hypothesis being applied in practice. Beyond the intervening variables of location, discipline, age, about which only indeterminate conclusions can be drawn because of the size of the sample, are more fundamental

principles. These include the need for managers to become aware of potential learning opportunities; the need to build these opportunities into personal learning plans through formal and informal development programmes, appraisal schemes, etc; the need for staff to feel that using opportunities to learn within their jobs is beneficial, rewarding and positively encouraged by the organisation through its employee development policies; the need for staff to develop the necessary skills of organising and managing their learning.

The conclusions drawn relate to a group of NHS managers as a whole and could be said to apply throughout the Health Service. Although some important points emerged in relation to the Mumford hypothesis in relation to variables of age, discipline and location, the samples of these variables being relatively small within the total group surveyed permits only a provisional conclusion. Also, some people left, were unable or were unwilling to answer all items within the questionnaire. These must be added to the limiting factors of the investigation. Many of the replies within the questionnaire followed a normal distribution with the extremities being too small to decide how significant they were. However, in the analysis of results this has been, where appropriate, pointed out as being at least, subjectively, of importance.

Relationship with client research organisation

The focus of the research study coincided with the prevailing view in the three Districts about management training, to the extent that there was an awareness of the need for self-development, self-directed learning and the use of learning with and through the job itself. The Personnel and Training Department have maintained an interest in the research as contributing to possible future plans and as part of the move away from training courses. However, this did lead to certain problems where interviewees were asked to comment on the validity of employee development policies as they saw them. Again this has underlined the approach of using the overall research sample as a basis for making conclusions rather than a smaller unit within that sample when reporting back. This meets the needs of the District Officers, individual interviewees and the purposes of this research.

SECTION 2: BACKGROUND

The nature of managerial work and its environment

In a key work Mumford (1980) starts with an examination of the manager in his environment as a prelude to a focus on the nature of managerial work. He sees this as necessary because it is important to see the manager

"as part of a system, in which actions and interactions affect managerial learning needs, and in which learning needs take a wider and more realistic place than would be indicated by some of the narrow approaches to identifying needs."

Handy (1976) identified over sixty different variables influencing the effectiveness of the organisation, many, or most, of which the manager has to be able to respond to or recognize, according to Mumford. The ability of managers to learn at work cannot be divorced from the variables influencing the nature of that work and of the context in which that work is carried out.

As context is important in describing managerial work so, also, is the content of managers' jobs. Mumford (1980) states that

"in order to improve a manager's ability to perform effectively - whether through learning or some other process - it is necessary to define what he is doing and what he ought to be doing."

Early attempts to do this, based on observation and well kept diaries, include the Swedish study of Sune Carlson (1951) and Stewart (1967). Stewart points out the major differences in the work managers do and how they do it. The contrasts

which emerge when generalities are subject to detailed analysis are brought out in the later work (1976). Such generalities include such findings as the average working week of 42 hours covers a wide range of significant differences in the hours worked and the fact that managers spend, on average, a third of their time alone. Stewart subsumes the variety within managerial jobs within a typology of roles considered by Mumford as popular among managers. In looking at ways of describing or defining the work managers do, Stewart also produced a Demand, Constraints and Choices model. Managerial work is characterized by the demands placed on the individual, demands from superiors, colleagues at the same level, junior staff and consumers of various kinds. Managers respond to these demands within the constraints which restrict their action. It is possible that the constraints, likewise, can be associated separately with the demands being placed on a manager for the carrying out of a task by supervisors, other staff and consumers. Lastly, the model suggests that as constraints influence demands the manager is left with one or more choices in his response. It is this range of choices, how they are perceived and used, possibly involving an element of risk-taking, which may be significant in managers promoting their personal learning at work. Mumford notes that the demands, constraints and choice model of viewing managers' jobs,

"is again an indicator of significant differences between jobs which will influence substantially the content of learning appropriate to those jobs."

Mintzberg (1973) also, like Stewart, has described the wide variety in the content of managers' jobs in a study based on direct observation rather than diaries.

The effective manager

Having established the variety and complexity of the managerial role which various writers have tried to classify as role types, models or classifications, the questions of evaluating these activities arises. Which are 'right' or 'wrong' ones? Since learning related to managerial activity can be learning 'anything' or learning related to objective performance-related measures of activity, some interest attaches to how the effective manager can be defined. Mumford's own observations suggested to him these 3 factors influence effectiveness:

specificity - the aspects of their jobs in which managers are required to be effective are specific rather than general

situational - the total situation produces a variety of pressures which give emphasis to particular features of the job

dynamic not static - the requirements of the job change with changing circumstances. Analysis of priorities, and of the crucial factors within a job may be invalid as circumstances change.

In the context of Mumford's survey, it is important to note that if a manager wishes to be effective or learn to be effective he is more likely to be so starting from a baseline

of reality. As Mumford concludes:

"the learning manager ought therefore to analyse his job content, the ways in which he actually spends his time, and the ways in which he can demonstrate himself as a manager."

Although learning, whether self-derived and progressed or the products of off-the-job management training, needs to be linked to whatever constitutes effectiveness, the term itself has no absolute meaning. It will always be, to a large degree, situational. The Stewarts (1978) found that effective managers in a number of organisations shared some characteristics but only one third of their effectiveness characteristics were common across firms and job levels. Mumford's answer is a check list which should include purpose of job, standards currently used to assess performance standards which ought to be used and crucial aspects of effectiveness in the job. Standards he links to appraisal, particularly self-appraisal, part of which ought to be devoted to the manager looking at the best use of his time. Thus, effectiveness and related learning needs to achieve or maintain that effectiveness he sees as incumbent upon the manager's defining his own needs in association with feedback from boss and colleagues. This would be combined with the manager's own reading of the present and future situation.

Burgoyne and Stuart (1978) list hypothetical qualities of the effective manager which include those cognitive skills and processes which would both contribute to managing better and the ability to learn. The manager should be in command

of the basic facts of a situation and the relevant professional understanding in relation to current plans and purposes. The manager should be sensitive to events and possess data gathering skills. Other important skills would include analytical, problem-solving and influencing. The manager should possess emotional resilience, being capable of working under pressure with the inclination to respond purposefully to events. Other qualities needed are creativity and imagination, plus balanced learning habits and skills with mental agility.

The link between effective management and effective learning

Bateson (1973) distinguished a number of levels of learning, the first three of which are

- (a) - taking in a fact or piece of data
- (b) - learning a new form of responsiveness
- (c) - learning that makes the individual better at achieving learning of the (b) type.

As with any process or skill there will be degree of competence. The competent manager needs skills and qualities to be so but the competence itself depends on criteria of what management is and what effectiveness in management is. In Bateson's terms, learning is at various levels of competence and likewise depends on what learning is perceived to be by the manager or anyone else. In some instances, learning will be an illusive perceptual phenomenon, just as perceived competence in day-to-day management. Burgoyne and Hodgson (1983) identified 5 kinds

of learning process, of greater or lesser degrees of subjectivity, in the working life of a small sample of managers. These processes were: feeling explicitly wiser after something new or unexpected happening having some perceived general significance, evoking and extending personal case-law, gradual, tacit change in orientation or attitude on the basis of cumulative experience, deliberate problem solving and learning, and reflective learning. On a more quantitative basis, Kolb et al. (1974) have attempted to relate learning and managerial competence in a hierarchical model. The first tier is "integrative competence" where the ability to learn and manage are effectively combined. At the second level, various learning competencies are labelled to correspond with Kolb's learning cycle (see below). At the lower tiers, "performance competencies" are less significant than learning competencies. Learning and managing, to whatever level of competence, are parallel processes. A manager can become more effective by a knowledge and understanding of the content and context of the job and role. This learning process, like any other aspect of performance development, will be related to his motivation and ability to learn. In recent years increasing attention has been drawn to "learning how to learn" not as an innate skill uniformly distributed through the managerial population but one which has to be acquired.

In a detailed work Smith (1982) suggests that the adult who has learned knows the following

- how to take control of his or her own learning
- how to develop a personal learning plan
- how to diagnose strengths and weaknesses as a learner
- how to chart a learning style
- how to overcome personal blocks to learning
- the conditions under which adults learn best
- how to learn from life and everyday experience
- how to negotiate the educational bureaucracy
- how to learn from television, radio and computers
- how to lead and participate in discussion and problem solving groups
- how to get the most from a conference or workshop
- how to learn from a mentor
- how to use intuition and dreams for learning
- how to help others to learn more effectively.

Mumford's list of the skills of learning (1981), building on Thomas (1976), goes closer to the realities of the work situation. They include

- the ability to establish effectiveness criteria for yourself
- the ability to measure your effectiveness
- the ability to identify your own learning needs
- the ability to plan personal learning
- the ability to take advantage of learning opportunities
- the ability to listen to others
- the ability or capacity to accept help
- the ability to face unwelcome information

the ability to take risks and tolerate anxieties
 the ability to analyse what other successful performers do
 the ability to know yourself
 the ability to share information with others
 the ability to review what has been learned.

Mumford (1986) has, himself, surveyed recent practices in the development of "learning how to learn" skills including his own approaches. Seminal works of Kolb et al. (1974), Kolb (1984) and Juch (1983) have emphasised the importance of personal learning. Kolb's work in the field of Learning Styles and the learning cycle, which build on work based experienced, has been particularly influential (see below). Examples of programmes, including discussion and questionnaires designed to enhance the ability of managers to learn, have been given by Canning (1984), Scriven (1984); uses of a learning log in Teire (1983), Whiteby (1984); and, the application of a personal learning guide in Kolb and Baker (1982). The Manpower Services Commission has publicised this developing field, producing a leaflet through its Training of Trainers Advisory Group (1983). There are currently a number of public programmes, some in association with the MSC or professional bodies (1984). A complete resource on Learning to Learn has been recently produced, MCB (1987).

Management development and learning theory

A problem facing the manager, already established, is that of defining effectiveness in management. Added to this are

related problem issues of identifying the link between being more effective and learning, in defining what constitutes effective learning, the skills and qualities encompassed. Identifying and using learning opportunities are key issues also, even if the manager has been trained or his consciousness raised in learning how to learn processes. The manager needs some concept of what learning is just as he needs to understand what management is. These concepts provide base points for any conscious attempt to initiate and monitor one's own actions, whether managing or learning or both. Learning is easier to grasp as an idea in an overt learning situation, such as the classroom. It is much more difficult to describe in a work-based experiential learning situation, a point which has made those researching this area of learning face difficulties. Robertson (1984), in a recent study, found problems in identifying learner learning in terms meaningful to research subjects.

Mumford's simple definition of learning used throughout his published work is:

A manager has learned if either or both of the following applies

- he knows something he did not know earlier, and can show he knows it
- he is able to do something he was not able to do before.

He admits, Mumford (1980), that there is no universally accepted theory of learning. Smith (1982) recognises one common feature of all learning theories - newness. He

identified 6 generally accepted observations

- learning goes on throughout life. To live is to learn.
- We learn through the socialising process, although deliberate efforts to learn are not necessarily made all the time
- learning is a personal and natural process, no one can learn for you, it takes place within you
 - learning involves change, something is added or taken away
 - learning is bound up with human development
 - learning pertains to experience and experiencing learning
- has its intuitive side, knowledge can come from within.

A contemporary issue, where "success" as an ingredient of learning is applied organisation-wide incorporating themes of learning opportunities at work, survival, change, self-development and effectiveness, is that of the "learning company". This is defined as

"an organisation which facilitates the learning of all of its members and continuously transforms itself."

One theme has been recently developed by Pedler, Boydell and Burgoyne (1989), Attwood and Beer (1988) and Garratt (1987).

Mumford (1980) suggests the elements common to all the main theories of learning are reinforcement, reward, success and failure, knowledge of results and memory. In a more universal survey, Burgoyne and Stuart (1978) have produced a learning theory 'schools of thought', giving principles and applications. Their list includes conditioning, trait modification, information transfer, cybernetic, cognitive,

experiential, social influence and pragmatic. For the manager, the experiential seems particularly appropriate, with its emphasis on engaging the whole person and giving discretion as to learning experiences to choose. In addition, the cognitive giving weight to intellectual and rational processing of information and problems may be well suited to managerial learning. Both come together in the Kolb learning cycle which is made up of a linked process of here and now experience, collecting data and reflecting on, analysing the data to form conclusions which are then tried out anew, (Kolb and Fry, 1975). In turn, Kolb's model builds on Jung's typological theory - sensing, thinking, feeling, judging - as applied to the learning process, bring interpretation and experience together as a prelude to new behaviours, (Jung, 1973).

The importance of experience, and of structuring experience through experimentation, has implicitly or explicitly been held as a fundamental principle of learning. Follet, writing in 1924, stated "we wish to do far more than observe our experience, we wish to make it yield up for us its riches", and Harrison, in 1968 "Experience must yield meaning to lead to knowing", (Beck and Cox, 1980). Experience and experimentation are understood as inherent in everyday work. What has become to be known as discontinuity and turbulence, the problem and change aspects of work as time progresses provide a rich vein for management learning. A formidable example of learning from problems and challenges of the job is provided

by Revan's Action Learning. This actively constructs situations in which managers learn through practical job-relating problem solving under pressure to produce results (1971), (1978), (1980). Richardson and Bennett (1984) have described a particular link between the stages of problem solving and the learning cycle of Kolb.

There are many intervening variables between a potential output of learning and the individual make-up of a particular manager. Among these variables a key one is that of learning style. This refers to the common experience that different people learn most effectively in different ways. Mumford explores the Kolb learning styles, concepts and definitions which he has developed and adapted in this country (Honey & Mumford, 1982). Kolb's theory of learning is one of a sequence of experiences with cognitive additions rather than a sequence of pure cognitive processes. His learning cycle comprises concrete experience (learning from direct and personal experience), reflection and observation (internalising that experience, analysing, pondering on events), abstract conceptualisation (making sense of those experiences, developing meanings and significance, constructing patterns of relationships), active experimentation (putting new concepts to work). The cycle is, in principle, a continuous process. Kolb considered that, as a result of heredity, past life experience and the demands of current environment, most people develop learning styles that emphasise some learning abilities over others. By the use of

a questionnaire, the Learning Styles Inventory, Kolb sought to test out and measure an individual's particular strength in terms of each of the four parts of the learning cycle. He established 4 prevalent learning styles

- the Converger: combines abstract conceptualization and active experimentation (practical application of ideas)
- the Diverger: combines concrete experience and reflective observation (generating ideas)
- the Assimilator: combines abstract conceptualization and reflective observation (creating theories)
- the Accommodator: combines concrete experience and active experimentation (carrying out plans).

Honey and Mumford (1982) have found these terms not helpful in a British context and have produced new, more descriptive ones. They have found the Learning Styles Inventory to be unacceptable since it is based on responses to words not statements. Some recent research, Wilson (1986), while accepting that the experiential learning cycle has a high face validity, has established the low stability of the Kolb Inventory on a test-retest basis. However, Honey and Mumford have looked beyond the mere identification of Learning Style to the steps which can be taken to improve and develop all 4 learning styles (Honey & Mumford, 1985). The authors believe that attention given to learning styles by managers will include the following benefits

- increased awareness of learning activities which match the dominant learning style of the individual (identified by

the Honey and Mumford Learning Styles Questionnaire (1982) (1986)

- a better choice among those activities leading to a more effective and more economical learning provision
- an identification of areas in which an individual's less effective learning process can be improved
- development of ways in which specific learning skills can be improved.

There are other variables besides learning style influencing the extent to which learning will take place in the work place. Mumford (1980) makes much of motivation. The manager must recognise that there are areas of current performance where improvements can take place. There must be an awareness of what success is and an acceptance that others can show skills which can be studied and emulated. There must be a desire to complete, and a desire to improve. An important element will be risk-taking which may lead to new experiences through new experiments, thus fuelling the learning process. Equally, a great deal of the motivation depends on the perception of each learner. How he sees himself, the degree of self-awareness he possesses, how he interprets learning opportunities, are all key components of perception. An inability to recognise situations and needs, an unwillingness to accept new messages which are dissenant with old experiences and absorbed models are major blockages in managerial learning. Perception and motivation are linked to learning and to managerial action which both require

active behaviour rather than passive acceptance. Expectancy theory, with its needs-path-goal hypothesis exemplified by Vroom (1964) and the motivation calculus of Handy (1976), both illustrate how perception of effort in relation to outcome prompts a particular course of a degree of action. Handy suggests a manager's attitude to a potential learning experience is related to

- his perception of the relevance of the particular experience to learning needs accepted as real to him
- his perceptions of the difficulty or risk involved in attempting to learn through that experience
- his beliefs about the rewards secured by others who are seen to have gone through similar experiences
- his perception of the level of encouragement offered by the environment, including employment development policies explicit and implicit, in general, and his boss and colleagues in particular
- his perception of the relation of the experience to the ways in which he believes he has learned in the past.

Lastly, there are a whole range of blockages to learning besides perception of learning application and benefit, such as described by Temporal (1978) and Temporal and Boydell (1981).

Self-development and self-directed learning

"Learning how to learn" and consciously, continuously, actively applying those skills and insights in the work environment suggest a degree of competence in entrepreneurial

learning. The entrepreneurial learner is self-directed and works with or without structured programmes and external facilitators. He is concerned with managing his own learning resources including time, skills, techniques and methods. Entrepreneurial learning seeks to challenge traditional assumptions and therefore practices of established trainers. Much ground has been covered in the "holistic" view of Carl Rogers (1961) (1969) which emphasises the personal qualities of the self-directed learner and the power of the self-directed and self-managed approach. Stuart (1984) has emphasised learning as a "natural" process and French (1981) for maximum freedom and minimal structure in learning. One theme is that personal study habits, particularly now in vogue with the current interest in Open Learning and distance learning. Marshall and Rowland (1981) and Ashman and George (1982) are some recent examples. Apps (1978), in an earlier study, suggested that

"the underlying assumption of learning how to learn is that you, the learner, have the ability and the responsibility for planning much of your own learning."

A further theme is that of self-development. The idea is well established e.g. Hague (1974). Pedler and Boydell (1980) question whether it is "by self". The first is self-development as a process, the second is self-development as a goal. "By self" suggests control over choosing goals, deciding means, deciding when and in what sequence to tackle goals and evaluating the success of the development programme. The authors survey the field of development, including the

"perturbation" stimulus, mentioned earlier. Mumford (1980) suggests what is required to become a self-directed learner, while Pedler, Burgoyne and Boydell (1986), Boydell and Pedler (1981) suggest that a self-development system is made up of four elements: the individual, the learning and development climate, formal development structures and opportunities for both learning and development. In the first move, the authors link self-development to the natural maturing process, pointing out four interrelated arguments for the special appropriateness of self-development to increased managerial competence. The work of a manager is characterized by complexity and variety. Therefore,

"self development processes, with their inherent self-energising properties and their ability to the individually different needs of different situations are arguably the only feasible method of management development."

Secondly, management is concerned with unprogrammed problems, therefore managers must learn from their own practice and experience rather than being taught. Thirdly, the manager cannot create relationships until he has created order within himself. Fourthly, managers move across boundaries and this calls for the adaptability which is inherent in managers who have learned how to learn.

There have been a number of reported studies and training events concerned with self-development and self-directed learning, as with learning how to learn strategies and skills. Harrison (1975) describes an experiment with self-directed learning at the Civil Service College; Smith (1982) devotes

a chapter to a workshop on self-directed learning. Boot and Boxer (1980) describe a programme designed to enhance learning by experience. A learner-centred ideology is matched to a Repertory Grid technique to encourage reflective learning and thence, presumably an increase in personal effectiveness. Repertory Grid methodology has also been used by Thomas and Harri-Augstein (1985). Buzan (1984) has portrayed the intellectual dimension to the self-development of the brain's processing and patterning capacity, while Knowles (1983) sees experiential self-directed learning as a "releasing" factor, a characteristic of a theory person or leader and a concomitant part of that managerial style (McGregor, 1960). Lastly, Francis and Woodcock (1982) offer some help on learning activities to promote self-development.

Learning at work

Mumford (1980) surveys the opportunities for learning at work offered to a manager. This he calls real time learning, where task is the main focus and learning is subsidiary as opposed to the reverse situation on off-the-job training courses. Activities may be unplanned learning through the current job; planned, created learning within current job responsibilities by adding to them; taking on special assignments by using experiences outside work and by planned learning from boss or colleagues. Sources of learning of a similar nature are given by Temporal (1978). Mumford (1980) anticipates that learning opportunities will not always be

recognised for reasons such as lack of experience and the tendency to repeat the known and successful. Managers must have certain attitudes to identifying these opportunities "Normal managerial life is teeming with opportunities to learn". Smith (1982) explains how everyday experiences can be used at work as a source of learning e.g. by self-questioning, use of reminiscence, keeping a diary. Kolb, Lublin et al. (1986) define "integrative learning" as a concept and as a learning process which occurs best when integrated with work in real time.

Burgoyne and Stuart (1978) have suggested nine discrete categories of learning source, concluding that:

- managers learn from a diverse range of sources leading to differential development across the skill areas
- only a small proportion of managerial skills and qualities are traced back to innate and parental sources
- the greater part of learning of managerial skills comes from 'natural' experiential sources, work and other events and experiences not deliberately planned for learning process.

Barrington (1983) argues that the practical skills of learning can be acquired at work through tasks calling for observation, analysis and decisions in real-life fields related to discipline subjects. There is a relationship between the academic subject, 'real' work and the 'learning how to learn' process. Stuart (1984) has drawn together Kolb and the work on blockages in examining day-to-day learning, while Mumford's conclusion (1980) is that managing and

learning are analogous processes. Both represent a systems approach of objective setting, performance standards defining, monitoring results and subsequent review. The system is facilitated by the manager but also with and through, ideally, boss and colleagues where counselling and coaching will be key activities. For Mumford (1975) (1983) the boss is the focus figure in developing this learning.

Recent studies

Some attempts have been made to analyse the extent to which managerial learning takes place in the workplace. Kelleher et al. (1986) studied the pattern of managerial learning among 43 managers in a Canadian municipal authority. It was found that learning was likely to occur when there were opportunities for accountable decision making unbounded by policy, managerial dictat or laid down procedures. Also significant learning could happen when change was demanded and rewarded accordingly. Learning processes were also aided by relationships with immediate superiors which involved or allowed receiving informal feedback plus the opportunity for upward communication and influence. There are some interesting parallels with the Mumford hypothesis, particularly in relation to role set relationships as an aid to learning. Accountable decision making may be significant in motivating a manager to learn, it being understood that this sort of motivation is important to energise learning. Accountable may suggest known and communicated objectives and performance standards. Managers need to know what is expected of them

and what progress they are making, whether that feedback is self-organised or provided by others. This provides a yardstick to identify learning needs and perhaps the needs of ideas to meet those needs oneself. If managers in this study learned more in a free and unrestricted environment, they had to use their own initiative and innovate. Mumford had drawn attention to the importance and significance of risk taking to lead to new experiences for potential learning. Added to this is the point linking learning and change. Here is perturbation, stimulus and the "releasing" factor. The study touches on relationships and the organisational environment both mentioned by Mumford and others, in terms of learning from colleagues and contacts. A study giving a similar result was carried out by Davies and Easterby-Smith (1984) who looked at how 60 managers in 5 companies developed personally in their work. Like Kelleher et al., they found that learning took place when circumstances were changing and when roles were not too closely defined. A change in job could prompt development when it was self chosen, involved facing up to new experiences leading to changes in perspective and decision making in conditions of risk and uncertainty. An important role was that of 'mentor', a senior person helping to facilitate the manager's career development. The Davies and Easterby-Smith study also mentions membership of 'task forces' as conclusive to personal development which is an activity figuring in the Mumford list of developmental opportunities. Stuart (1984) (1986) investigated the social processes involved when

65 managers, professionals and others used other people as a source of help at work. He identified three sets of strategies for using others to support personal learning, closely akin to the importance laid by Mumford (1980) on the use of colleagues in prompting learning. The facilitating strategies were 'clearing the way for learning' i.e. using others to help one come to terms with bad experiences, as a source of stimulation or self confirmation, or to sanction and structure learning opportunities; "tolling up for learning" i.e. using others to help to equip one by coaching and demonstration with practical analytical and conceptual techniques; "direct learning interventions" involving the use of people to advise, expose one's preconceptions, build on or test one's ideas, to provide confrontation, feedback, explanation or modelling, or to share their past experience and learning. The work of Burgoyne and his colleagues in looking at managerial qualities and skills is well documented in a field made elusive by complexity and the problem of defining criteria and boundaries, both objectively and in measurable terms. Burgoyne's research (1976) interviews with 50 managers identified skills and qualities and related them to seven different learning processes through which they had developed. Snell (1987a), in a research paper describes a study of 106 managers and administrators in 2 English local authorities and one large British multinational manufacturing company. Different areas of learning were associated with different patterns of learning entailing different cognitive, emotional and motivational

processes. Five distinct models of learning broadly accounted for the different kinds of learning and these are co-related with Burgoyne's typology.

Snell's recent work has particularly brought out the personal psychology of workplace and work-based learning; the distress of solo problem-based learning (1987b), disillusionment (1988) and psychological discomfort (1988b).

Scope of the present study

The Mumford hypothesis about managerial learning at work has become a key component of universal approaches to training and development, (Wood, 1988; Harrison, 1988). Mumford has produced a review of practice (1986) and a review of the literature (1986), as well as numerous articles (1987a) (1983). Various studies have attempted to follow up some of his empirical statements regarding the use of learning opportunities by managers at work, how learning is perceived and managed and what influences outcomes. The present study has sought to focus entirely on the Mumford hypothesis, taking key points and reducing them to 4 focal aspects

- the learning needs of managers; how and to what extent do managers identify their own learning and what is the source of their information
- context and environment; the influence of boss, colleagues and policies (explicit and implicit) within the organisation on learning
- learning opportunities; the extent to which those suggested

by Mumford do exist and are used, the level of awareness which exists concerning learning opportunities at work - the manager as learner; the extent to which managers see themselves as competent learners, the effect of learning style and how their perception of their learning style and its measurement on the Kolb/Honey and Mumford tests affects their effectiveness as learners.

The present tide of opinion is running in favour of self-directed learning and self-development. However, Mumford's recent study (1987b) on the learning processes of directors as top management suggests that we need to consider ways of combining the best features of informal and formal methods of personal development. The present study has included these more formal methods, e.g. conferences and courses, as falling within the spectrum of learning opportunities. It is likely that future work will need to look at ways of applying common processes of learning to all learning opportunities, developing those processes with job-based perceived relevant tasks then applying them to vicarious learning experiences gained outside work.

SECTION 3: METHODOLOGY

The context of the research

In a comprehensive survey of the place of research in training and human resource development, Bennett (1979) suggests that, although there is a place for academic research, "a good deal of other research is of considerable practical value and importance". Research should start with a problem or question; there should be a preliminary study in order to develop a hypothesis. Thence, information should be gathered to test the validity of the hypothesis with alternatives generated, if necessary. The process should end with a report being made to the client. Bennett suggests that there has been much work done on concepts of behaviour but less on how these concepts can be applied in practice.

In the case of this research, the hypothesis arose from the Mumford concepts and cause rather than from an a priori study of the field. An alternative approach is indicated by Snell (1988). In his research into managerial learning in the day-to-day work situation, he adopted a "phenomenological analysis" approach. This meant, for example, drawing out definitions of learning from interview subjects, listening and reading back excerpts and developing classifications in the 'there and then' as it happened (10 categories of how people said how they learned at work distilled at a later stage into 6 higher order categories).

Bennett (1979) puts forward the idea of "levels" of research, from the descriptive which leads on to classification which, in turn, may be capable of explanation and finally predictive of subsequent events, circumstances or behaviour. In this case, Snell's phenomenological consideration would be at the descriptive and classification levels. In the present research, the Mumford hypothesis provided a classification consisting of 21 statements drawn from 3 key pieces of his published work. The three references, together with notes and questions, are shown in Appendix 7. The statements formed the basis of the questions used in the design of the research questionnaire grouped round the 4 focus areas of study.

Mumford's hypothesis concerning managerial learning at work suggests a number of intervening variables which govern the likelihood of this learning taking place. These variables, indicated by the 22 statements and as grouped round the 4 areas of the questionnaire, can be seen as concerned with the following themes:

- a person's learning style is a variable which needs to be known by that person and needs to be consciously put to use to increase learning in the reality of organisational situations
- key people governing the extent to which the individual learns from his or her environment are that person's boss and immediate colleagues
- systems, procedures and climate within the environment

govern the individual's learning as well as people within that environment

- the effective manager may be the one who is an effective learner, identifying own learning needs in relation to standards and performance, spotting and using learning opportunities, engaging in self-directed and self-managed learning.

The research was broadly concerned with investigating the way managers learn at work, using the Mumford hypothesis as a base line. The intention was to confirm whether the variables suggested by Mumford were significant in work-place learning as well as attempting to identify whether there were any additional items. Using Mumford's definition of learning as a reference point, the intention was also to draw a distinction in respondents' perception between conscious, planned learning and unconscious or intuitive 'natural learning'.

The questionnaire developed from the Mumford hypothesis provided a framework, as indicated above, to test out the extent to which these ideas were borne out in the Health Service as a reference situation. Material gathered would throw light on the extent to which managers actually learned from their work experiences and would or could confirm what factors or variables influenced this process.

The research should lead on to make a statement about 'natural' or 'opportunistic' learning, at least within the

sample of managers and situation studied. As a result of the investigation, a model could be developed (of practical value to the client) to be used directly or form the basis of a self-development programme for managers within the work situation and incorporating work experience.

Focus of the study and course of investigation

The study was based on a sample of managers employed within the National Health Service, based in 3 Health Districts, themselves part of one of the Thames Health Regions. The National Health Service is noticeably significant for its attraction to organisational research. It is a labour intensive organisation possessing an incredibly rich infrastructure of technologies, professional skills, economic structures and non-human resources. It is also noteworthy for its record in the management training field and for its human resource development policies and strategies.

The management of the Teaching Hospital in the first District concerned expressed an interest in the research, arising from the researcher's involvement in external and in-house development programmes. As a preliminary gesture, they agreed to provide access to interviewees for both the pilot and the main study. The District Personnel Officer also made personal contact with 2 neighbouring Health Districts to enable the study to be extended.

The study was carried out in two parts. First, a pilot study to test out the written questionnaire and the type of interview approach used, involving 5 managers, all female, 2 administrators, 2 nurse managers, 1 paramedical manager. Second, a main study involving a planned 55 managers. Incomplete returns, job changes and other local domestic reasons led to a final total of 52 sets of complete data (though not all the questions were answered by all of these respondents) for the second stage (20 males, 32 females).

The pilot stage was started in March 1985 and the results were discussed with the sponsoring organisation in July 1985. The main stage consisting of first and second interviews, plus questionnaire completion, was carried out over the period November 1985 to August 1987. The sample, site of initial study and identity of respondents was derived from discussion with the client when the objectives of the research study were negotiated and agreed, together with the client's criteria for co-operation and support. It was further agreed that the major Health District providing the site for the pilot study would provide an additional 15 possible interviewees. Two neighbouring Health Districts activated through personal contacts through Personnel Officers provided a further 20 names each.

The Districts involved were similar in size and in services, providing the full range of hospital and community in patient and out patient services. The first District (which provided

the site for the pilot study additionally) was a Teaching District, i.e. possessing a Medical School, although this was the only main feature which distinguished it from the other two sites.

When the initial discussion took place at the pilot District, the intention of the research, once classified, enabled a paper to be prepared to confirm the aim, objectives, scope and format of the research. The paper also outlined the proposed activities involved as part of the data gathering process. The method of analysis was included together with a summary of the Mumford hypothesis. Benefits of the research of possible interest to the client organisation were suggested as:

- a possible foundation body of material for any form of self-development package for managers proposed by District training staff
- a set of principles which might be used for the launching and/or re-vitalisation of any systematic form of staff appraisal
- suggestions which would form the basis of managerial follow-up, de-briefing and action planning resulting from attendance by individuals at outside management development programmes.

These suggestions indicated that the study would produce material concerning intervening variables affecting learning at work which could be used for purposes not directly related

to research objectives. From first discussions a questionnaire was devised and used with the pilot survey respondents in association with a first interview to explain the purpose of the research and the questions. The questionnaire was left with the respondents for 4 weeks and subsequently collected at a second interview, which also provided an opportunity for clarifying replies given to individual items or questions. Extra comments not previously recorded could also be noted. After alterations to the questionnaire based on feedback from the first set of respondents, the main study followed the same pattern. In a small number of cases there were 3 interviews in all where particular comments in the questionnaire needed to be followed up.

Sample size and selection of subjects

There was some discussion about the size of the sample and whether this would be sufficient to draw conclusions in relation to the objects of the research. The issue must be seen in relation to the problem of deciding what constitutes 'management' in the Health Service and where managers, once defined, are located in the organisation. Since the focus was to be on managers as a generic group, it was eventually felt that the sample size would be practicable. If the focus had been on a sub-group, such as senior nurse or paramedical department head this, perhaps, would not have been so. The size of the sample in relation to the appropriate Regional and District total staff figures are

given in Appendix 4. The sample covered managers in the following Whitley Council staff categories: Administrative and Clerical, Nursing and Midwifery, Professional and Technical A and B. For convenience of identification and analysis, categories were simplified as Administrative, Nursing, Professional and Technical 1 and 2 (the last two each consisting of named occupational groups).

There remained the vexatious problem of defining what a manager is within the Health Service. It was important to investigate staff with reasonable opportunities to develop their own learning as part of their normal work. The following criteria were eventually adopted when arranging for volunteer respondents through the appropriate District Personnel Officer:

- middle management (A & C Grade 4 and above, Senior Nurse grade or above, Paramedical Head of Department, Superintendent or Deputy)
- control over 8 or more staff
- drawn from any discipline with the grades stated
- having contact with other colleagues on a routine basis.

Although this provided a good guide, there proved to be differences in the form of organisation relating to the various disciplines. This included such factors as some paramedical staff having two bosses, a nominal or reporting one (who was often detached and with whom there could be little contact) and a clinical one (where the relationship was one of resolving clinical issues and not always clearly managerial ones).

Limitations of the sample and inferences of results analysis

It was not possible, nor intended, to test a statistical hypothesis (Moser & Kalton, p.62). Rather the concern was to see whether the Mumford hypothesis held good to any subjectively significant degree within a comparatively small but typical cross section of NHS managers. The computer generated reports produced "at sight" analyses of returns in terms of totals and percentages from which interpretations were made and conclusions drawn in respect of the objectives of the research. Although the reports do show responses by category, variable or figure as percentages individually and summated, measures of control tendency, correlation and significance were not carried out. A partial exemption was the table of mean scores where answers were numerically based. These and the other reports provide scope for "at sight" comparisons to be made, e.g. in the relationship between self-perception as an effective learner and as an effective manager in Part IV of the questionnaire. On balance, it was felt that, although the results could be analysed in terms of statistical relationship and significance, this might lead to judgements based on a spurious veneer of accuracy in distortion of the reality of the situation. This might also be misleading because of the many contaminating issues encountered which affected the type of response given in the questionnaire which are enumerated below. Problems such as different organisational situations people were in, differing perceptions about their roles and responsibility and in the

meaning and application of some of the concepts in both the Mumford hypothesis and subsequently in the questionnaire. It was felt that since Mumford's hypothesis contained all-embracing assumptions or suggestions rather than quantifiable statements about managers' learning at work, the reports would provide sufficient data to enable reasonable conclusions to be drawn. The sample was considered to be small but manageable and findings from this sample could not accurately predict the same application to the wider Regional population, staff category against staff category. For this the sample size would have had to have been considerably larger in each case.

For 95% confidence level in predicting application of sample results to population:

| | Sample | Regional total | Requisite sample |
|-------------|--------|----------------|------------------|
| A & C staff | 20 | 1808 | 316 |
| N staff | 20 | 1163 | 291 |
| PT staff | 13 | 4610 | 354 |

(Requisite sample figures given by Zembe and Kramlinger, 1988)

Methods of data gathering

The definition of the issues concerned was an essential prelude to the design of a system to gather the data and to draw conclusions from that data in relation to the hypothesis testing required. In working through these issues certain criteria were paramount. One was the Mumford thesis which

could be simply tested out. Does it or does it not, wholly or partly, apply to the Health Service as an employment organisation? Another was the stated interests of the client organisations who, though notedly interested in the Mumford ideas, were even more interested in a 'contractual' relationship which would bring them some return from the exercise. Regarding the first alternative concerning a testing of the Mumford hypothesis, there could be two dimensions. Is learning a passive process which just 'happens' as managers react to a situation? Even perhaps a form of half learning or meta-learning which does not necessarily lead to behaviour change? Alternatively is learning, albeit still a 'natural' process, more consciously contrived on the part of managers and synonymous with day-to-day problem solving and the seeking after new solutions? To understand the why? and how? the Mumford hypothesis was or was not borne out would mean examining these influencing variables both suggested by Mumford and those in which the client organisation would be interested. To check the application of Mumford would mean checking a snapshot of part of the Health Service against some statements summarising what he has to say about learning within organisations.

In resolving this dilemma the emphasis was on collecting data in sufficient depth and detail to comment on Mumford's principal points. An attempt would be made in making conclusions to rationalise the results providing data was sufficient to make a worthwhile statement.

Methods of data collection can be grouped round documentary sources, observation, mail questionnaire and interviewing (Moser & Kalton, p.238). Documentary sources, it was soon realised, would not form a profitable source. Job descriptions existed in many cases but documents of more immediate value such as lists of training needs for particular groups of staff, performance standards, learning contracts negotiated with the boss were not available for this group of staff. Observation, as a method, was not considered practicable since the input of time and effort observing and recording, plus negotiating the necessary agreements, could not be justified. This left the questionnaire and interview separately or in combination.

Methods chosen

The advantages and disadvantages of the questionnaire sent by post (Moser & Kalton, pp.257-269) suggested that, on balance, this was not applicable for this research. The sample being relatively small, a high rate of return was required. The nature of the content meant that face-to-face communication was necessary. To test out the hypothesis, to check understanding of the concepts involved, to elicit new ideas on variables arising from respondents' perception of the hypothesis, the administration of the questionnaire needed to be combined with one or more interviews. With many variables of location, discipline and subject, plus problems of communicating, the quality of response needed

respondents to be highly motivated, an unlikely event with the remoteness of the postal questionnaire.

The main source of data collection was a prepared questionnaire which was explained to each respondent at an initial meeting. This provided a springboard for a more open-ended multi-purpose interview and discussion at the subsequent meeting, on average 6 weeks later when the completed questionnaire was collected. It provided an opportunity for gaps and inconsistencies in the completed questionnaire to be followed up. Further examples could also be drawn out, with some explanations and models offered in case of difficulty. Extra comments could be noted. Respondents were encouraged to add items either on paper or during the second meeting which might have a bearing on the research orientation but which might not figure fully in the questionnaire. Since the object was to test the Mumford hypothesis, a careful perusal of the key works having elicited the 21 quotations or extracts, these were refined into 4 main areas. These areas were presented as separate sections of the questionnaire in what was hoped would appear logically and collectively to form a cohesive whole. The 4 areas covered were:

- I Learning Needs
- II Human and Organisational Environment
- III Learning Opportunities
- IV Management of Learning.

To these was added a section on Learning Styles, giving an

opportunity for self-testing using the Learning Styles Inventory (LSI) and the Learning Styles Questionnaire (LSQ). There was also space for a personal comment on the results in relation to self-perceptions. The derivation of the 4 areas from the Mumford 21 statements is shown in Appendix 7.

In the Learning Needs section an attempt was made to focus on 3 tasks to identify whether people were conscious of using a "performance discrepancy" model in identifying their own learning needs. Apart from this, whether they knew about standards of performance required of them and were aware from any other source of their learning needs. The intention here was to see whether people could take responsibility for managing their own learning if they did not realise or accept what their learning needs were. Could these needs be specific or were they open-ended? Could there be a conscious need to learn without a precise, end target?

In the Human and Organisational Environment section the boss and peer or colleague role in generating learning was approached. Additionally considered was how dependent people were on their boss' support and the extent to which they took risks in his or her absence and in so doing opened up potentially new learning opportunities. The environment, in terms of explicit and implied organisational policies, was touched on to see whether it was perceived as conducive to learning. A particular point of Mumford's, the role of factors within private life in promoting personal learning, was also made part of this section.

In the Learning Opportunities section an attempt was made to prompt thinking about where the organisation, scope and content of the job, both routine and non-planned or unexpected, gave scope for learning. Again, using a Mumford suggestion, respondents were asked to describe that "most powerful learning experience which happened to me recently at work". The idea here was to focus on some critical incident to heighten the possibility of recall then explore for possible evidence of type or nature of learning opportunity.

In the Management of Learning section an attempt was made to look at how the daily process of managing was used to integrate the social and intellectual processes of managing and learning. The Rosemary Stewart model of demands, constraints and choices was used to explore how consciously people used choices to solve problems and to promote their learning. Respondents were also asked to rate themselves as a manager and as a learner. Since the items listed correspond to those suggested by Mumford, the use of such a list seemed an appropriate device at this stage (Oppenheim, p.82, on use of checklists "at their best when used to test specific hypotheses rather than as exploratory tools").

The use of the 2 interviews was considered important for briefing, discussion and elaboration but also to establish a good working relationship with respondents. The second interview was less structured than the first, accepting the case for the informal interview to build a relationship of

confidence when exploring topics of self-awareness and revelation. As indicated below, the informal or marginally "conversational" interview (Moser & Kalton, p.298) is flexible, possibly far ranging in scope and therefore potentially probing a rich vein. However, it leads to problems of recording information received, subsequent analysis, cross-comparing results and determining significance within the research hypothesis.

Questionnaire design

The guiding principles are to be specific, simple and non-ambiguous. In this case, with a document which was a questionnaire rather than a recording schedule, length had to be balanced against comprehensiveness and practicality. The questionnaire was produced in draft and checked with the sponsor Personnel Department of the first Health District approached. Broadly speaking, the questionnaire (Appendix 3) started each item with a note of explanation, asked a factual question or a closed question to agree or focus an answer followed by an open question or a forced-choice question to elicit judgement or opinion.

Problems abound with questions seeking a judgement which is a reflection of or related to an opinion and probably symptomatic of an underlying attitude (Moser & Kalton, p.317). Respondents must be familiar or identify with the issue to have a worthwhile opinion otherwise it is merely a theoretical and intellectual response. A person's opinion on virtually

any issue is many sided. Closely related to this is the problem of intensity. Finally, it is worth noting that answers to opinion questions are more sensitive to changes in wording, emphasis and order than the more direct type of factual questions. For these reasons the questionnaire made extensive use of Likert-type force-choice rating scales and Thurstone-type statements with numerical weighting to enable respondents to "close down" their views. Obviously, from the research point of view this format lent itself to an equitable form of recording, analysis and cumulative summaries from which to draw significance in relation to the sample.

There are many a number of open questions in the questionnaire. These were designed to encourage respondents to produce reasons to back up judgements, to produce new material which might underline the hypothesis or to promote divergent rather than convergent thinking.

Simplicity of language, the avoidance of jargon and the right level of abstraction for the sample respondents was achieved by giving examples, introductory explanations and short sentences. However, some rewriting after the pilot study was needed and because of the wide and far-ranging experience and previous training of the respondents the first interview was essential to clarify words and meaning.

Questions sought to avoid being presumptive, leading or embarrassing (Moser & Kalton, p.325-6). Where assumptions were made, these were explained as being part of the Mumford hypothesis.

In order to classify or categorise responses, both rating (used when an attitude or a personal impression is wanted i.e. self-assessment; a numerical value can be given to some kind of judgement) and ranking were used (arranging in order of priority of a list of items with regard to some common aspect) (Oppenheim, pp.87, 92).

Many problems were encountered with the administration of the questionnaire, some of which, such as communication issues, were resolved by visits and telephone calls. The flexibility of the second, or follow-up interview, enabled the data-gathering approach to be tailored to individual and situational needs.

There was the problem of ensuring an adequate response rate with a self-administered questionnaire, albeit backed up with two visits. It was important to explain the purpose of the research and the need for the data (Oppenheim, p.27) and this often took a good deal of time. The concepts were often difficult to communicate, although often "anchored" by Mumford's definitions e.g. of learning. A central issue was the question dealing with periodical behaviour relying on individual memory, e.g. critical learning experience, encounter with boss or colleague providing opportunity for learning.

Perceptions of staff about their work, their role and relationships provided a major hurdle and constant and careful explanation was needed to move from where 'staff

were at' to the assumptions and outlook of the Mumford hypothesis as represented in the questionnaire and interviews discussion.

Problems also arose with terms used, particularly the roles used by Mumford to describe the developmental role of the accountable manager. Since the focus was on learning, much attention had to be devoted to processes like 'giving feedback' which proved difficult for some people to use with confidence. Learning itself as a concept is not without its difficulties. The Mumford definition was used in the questionnaire for clarity and for reference. This helped people to recognise the learning process intellectually but not necessarily in terms of describing their own behaviour. People seem to be in agreement that they learn or are learning but then seem unable to articulate what that learning is or to demonstrate it.

At the time of the research, organisational changes associated with the Griffiths Report were in train within the National Health Service. This meant respondents' superiors were sometimes very new in post or there were vacancies. Some respondents found difficulty also in distinguishing between 'what is' and 'what should be' (in their own scheme of things) when describing policies or relationships with other staff. For them the answer to be given was "what answer do you want?", as if the questionnaire had a built-in value system in which there was a "right" answer.

The methodology adopted, both questionnaire and interviews, was not able to avoid response errors because of respondents' varied ability to get in touch with their learning experiences and express them verbally or in writing. However, it was felt that the consistency of the questionnaire applied to a sample of this size would provide sufficient evidence to draw adequate conclusions in line with the objects of the enquiry. Equally, the predictive validity of this measuring instrument in relation to the Mumford hypothesis had to remain uncertain. From the results received it was felt general statements could be made, but, as already indicated, statistical analysis would not be appropriate and would not lend greater significance to the conclusions reached.

Relationships with the client and roles identified

Relationships were built with a key Personnel or Training Officer in each of the 3 Health Districts. Following the pilot stage, the Personnel Officer held a meeting with the 5 respondents and produced a report of their reactions to the questionnaire with suggestions covering both briefing and questionnaire design. Suggestions which were incorporated where sufficient consensus seemed to suggest this was desirable, included giving examples of tasks, more space for open-ended answers, definitions of such roles as 'coach' and 'risk sharer' and more explanation in such areas as the difference between 'planned' and 'unplanned' learning. These items provided feedback of particular value for the

first or briefing interview during the Phase II main study. Continuity of the numerical grading system, i.e. 1-5/low to high was standardised as seeming more natural to respondents.

Bennett (1979) draws attention to the researcher client relationship, suggesting that very often they operate in different kinds of stereotyped roles. The researcher was fortunate in that the key client contacts were Influencer/Activator in Bennett's terms.

Most respondents expressed interest in the content of the research and in the findings. A short report was produced and distributed to all once the interviews were complete (Appendix 8).

Processing the data

The results of the questionnaires were recorded manually and after subsequent coding were processed on an IBM AT compatible computer, using D base III. The questionnaire was not designed with precoded answer spaces so that sub-classifications had to be developed as a basis for presentation of the data. A total of 40 reports were produced covering the 12 page questionnaire and included a computer generated graphic comparison of each of the 4 dimensions of the Learning Styles Questionnaire (LSQ) against the Learning Styles Inventory (LSI) across the sample.

Results are given here for both the Pilot and Main study, using numbers and letters e.g. I(a), as given in the questionnaire.

SECTION 4: RESULTSThe Pilot Study (5 responses)

I LEARNING NEEDS

- (a) All respondents identified 3 tasks.
- (b) Standards were expressed in terms of budget limitations
(3) feedback from the work through colleagues and others (3) and (6). The last respondent said the 3 tasks had explicit standards. For one of these tasks progress was an indication, for the other two tasks the standard was observable changes in the job.
- (c) Not applicable in all cases.
- (d) Four out of the five said that performance standards were decided by themselves in association with their boss.
- (e) Four felt standards of performance should be made explicit, one thought standards should not be explicit but should be flexible to allow for changing circumstances.
- (f) Two were completely or, to a large extent, aware of their actual performance against or in relation to what they saw as required a standard performance. Three were less certain.
- (g) Four of the five agreed completely that comparing actual against required performance enabled them to identify their learning needs. But all felt that in some small degree that they consciously identified learning needs at work.

- (h) All felt that their awareness of their learning needs emerged largely from reflecting on things that went wrong (four estimated this process as most relevant in their case).
- (i) Involving others and discussing with colleagues also seemed to be important.
- (j) Learning needs perceived (i.e. derived from whatever source or by whatever means) included:
 - development of oral communication skills
 - more constructive listening
 - coping with stress without passing it on or adding to it
 - specific in depth knowledge to deal with situations e.g. budget control
 - thinking and responding on one's feet
 - how to present clear objectives for others
 - how to listen more and really hear what I am being told
 - a broader knowledge of certain subjects to give confidence e.g. Industrial Relations
 - planning priorities
 - how to assess and cope with the real priorities amidst the mass of trivia and irrelevancies
 - improving staff management - particularly motivating staff
 - greater confidence to speak on items at meetings
 - an ability to refuse to delay work politely.

II HUMAN AND ORGANISATIONAL ENVIRONMENT

- (a) Only one of the five respondents had a straightforward 'single' boss situation. The others mentioned two or even three names.
- (b) Three said 'same' in terms of learning opportunities encountered in 'boss encounters'; one said 'hardly any' in respect of both bosses, one saw the boss as only active in promoting the respondents' learning.
- (c) One boss helped to some extent for three respondents in relation to the learning opportunity they had in mind.
- (d) Help ranged from giving information on contacts to be made to how to go about resolving a situation, with advice of a personal nature in another case. Another hinted at some joint problem-solving.
- (e) All respondents, save one, saw the boss or bosses as "some" or less helpful in aiding learning, at least as far as the Mumford sub-roles were concerned. One saw her 2 bosses as helping "a good deal" as a model. The results from this item were fairly widely spread across the range.
- (f) Three 'often' sought help from the boss and if the boss was unavailable tended to ask someone else. One saw the boss as generally supportive, when available, and one saw herself as "struggling on" to the best of her ability.
- (g) Four respondents gave the job titles of 5 colleagues with whom they came into frequent contact. One other

chose 1 colleague. Colleagues as "providing feedback" seemed to be important (5 high score mentions). Colleagues as risk sharers also seemed to be significant. Only one respondent suggested for only one of the colleagues listed that the relationship "hardly at all" contributed to her learning. One respondent also mentioned one colleague saw the word coaching relevant as describing the learning relationship.

- (h) Four mentioned a particular colleague of those previously mentioned who stood out as influencing their learning. One fifth mentioned an outside influence.
- (i) Replies on the conducive degree questions ranged from "a little" to "very conducive". The busyness of work was a barrier to learning in one case but three others perceived this as providing learning opportunities rather than preventing learning. Three people felt learning was enhanced by the varied activities interest in their type of work. Two people thought that the pace of the work significantly contributed to their learning. The importance of "clear objectives and policies" to help learning take place was rated more highly for the non-clinical area.

All respondents saw outside influences to be significant in their learning, some gave a considerable amount of detail in describing specific examples. However, there seemed to be little explicit encouragement to learn and develop within the organization.

III LEARNING OPPORTUNITIES

- (a) Items mentioned included problem solving (2), involvement in the training of others (2), routine meetings (1), also informal contacts, meeting needs of staff and "first carrying out the work".
- (b) Mention was made of talks arranged with an outside & department to learn about that type of organization.
- (c) This is also an example of a planned learning opportunity. Other opportunities mentioned were research projects, reading, observing others handle situations and getting involved in implementing new routines.
- (d) "Unplanned learning" was "most relevant" for 3 respondents, indicating learning derived from fortuitous events rather than from projects forecast as being of potential value for personal development as well as for operational needs. One respondent, unlike the other three, considered "planned created learning" as "most relevant" in her particular case.
- (e) All four respondents considered that their most powerful learning experience had come about by accident, one indicating that this had been based on an incorrect assumption made.
- (f) All mentioned, as a prime barrier in preventing their using potential opportunities for learning at work, "pressure of work". One also added "problems of communication".

IV MANAGEMENT OF LEARNING

- (a) All respondents were able to identify different tasks in terms of the source of demands placed upon them. Constraints seemed to cluster round consideration of time and money but also the lack of information and policy matters.
- (b) There was some polarity here. Two respondents felt & unable to comment a great deal. The other two listed a
- (c) range of choices open to them and were able to distinguish both how they actually used the position of choice and how they felt they might use it. The point here was that a conscious decision to try out new behaviour might be a stepping stone to new learning. One person claimed to use such situations consciously to learn about new behaviours and to try out different approaches.
- (d) All respondents felt they managed their time "quite well" or "very well" and had improved in this respect over the last two or three years.
- (c) Respondents were asked to assess their own competence as managers. The results were:

(5 high level of competence, 1 low level of competence)

| Code of respondent | 100 | 101 | 102 | 103 | 104 |
|----------------------------|-----|-----|-----|-----|-----|
| Collecting data | 4 | 4 | 4 | 3 | 3 |
| Setting objectives | 2 | 3 | 3 | 3 | 3 |
| Defining standards | 2 | 2 | 2 | 3 | 3 |
| Planning activities | 3 | 3 | 4 | 2 | 5 |
| Translating plans | 3 | 2 | 3 | 3 | 2 |
| Monitoring results | 3 | 3 | 3 | 3 | 3 |
| Reviewing results | 3 | 3 | 3 | 3 | 3 |
| Deciding additional action | 3 | 4 | 3 | 5 | 4 |

| Additional items added to list of competences | 100 | 101 | 102 | 103 | 104 |
|--|-----|-----|-----|-----|-----|
| Develops good relationships with colleagues | 4 | - | - | - | - |
| Being decisive | 2 | - | - | - | - |
| Motivating staff | - | 3 | - | - | - |
| Achieving objectives | - | 3 | - | - | - |
| Accurate assessment of priorities | - | - | 3 | - | - |
| Thorough knowledge of procedures | - | - | 3 | - | - |
| Ability to organize | - | - | - | 5 | - |
| Ability to listen | - | - | - | 3 | - |
| Ability to survive | - | - | - | 3 | - |

Attention to detail)
Receptive to change)

No self assessment made
by respondent 104 only
2 items put forward as
additions to the list.

- (f) Respondents were asked to rate their present competence as managers of their learning.

| Code of respondent | 100 | 101 | 102 | 103 | 104 |
|--|-----|-----|-----|-----|-----|
| Establish effectiveness criteria for myself | 2 | 3 | 2 | 5 | 2 |
| Identify my own learning needs | 3 | 2 | 3 | 2 | 4 |
| Plan my own learning | 2 | 2 | 2 | 1 | 3 |
| Take advantage of learning opportunities | 3 | 3 | 4 | 3 | 4 |
| Listen to others | 4 | 3 | 3 | 3 | 4 |
| Accept help | 3 | 3 | 4 | 4 | 4 |
| Analyse what successful performers do | 4 | 2 | 4 | 3 | 4 |
| Know my own capabilities | 3 | 3 | 3 | 5 | 5 |
| Share information with others | 2 | 4 | 4 | 5 | 3 |
| Review what has been learned | 4 | 3 | 3 | 3 | 2 |

"Planning own learning" was rated between 1 and 3 (on a 5 high 1 low scale). There were no "1" scores on the competence as a manager scales in contrast to two "5's". There were four "5's" on the competence as a manager of own learning scales with a single "1" score.

V LEARNING SCALES

(a) Learning Styles Inventory (LSI)

| | | | | | |
|--------------------------------|-----|-----|-----|-----|-----|
| Respondent code | 100 | 101 | 102 | 103 | 104 |
| Concrete Experience (CE) | 13 | - | 17 | 20 | 14 |
| Reflective Observation (RO) | 23 | - | 12 | 11 | 10 |
| Abstract Conceptualization(AC) | 19 | - | 17 | 17 | 13 |
| Active Experimentation (AE) | 10 | - | 18 | 20 | 22 |

(c) Learning Styles Questionnaire (LSQ)

| | | | | | |
|-----------------|-----|-----|-----|-----|-----|
| Respondent code | 100 | 101 | 102 | 103 | 104 |
| Pragmatist | 15 | 7 | 15 | 13 | 14 |
| Reflector | 19 | 18 | 15 | 4 | 12 |
| Theorist | 15 | 9 | 14 | 11 | 9 |
| Activist | 3 | 6 | 11 | 10 | 7 |

- (c) All respondents felt that, for the most part, their questionnaire scores adequately reflected their characteristic way of learning.
- (d) All expressed interest in improving or extending their learning style. One wanted to become more of an Activist, another to reflect more on situations generally in order to learn more (although scoring 15 as a Reflector).

The Main Study Responses

The Sample

55 staff were presented for initial interview. One moved post before completing the questionnaire and there was one failure to complete.

A breakdown of the 55 respondents by job or title, staff category, gender, age group and job location is given below (Appendix 1).

Data processed responses are given (Appendix 2)

I LEARNING NEEDS

- (a) Examples of three important tasks, chosen by respondent, critical to successes within the job as a whole. All respondents gave three tasks which were categorised under four headings, routine day to day management within the function; communication with staff; patients or other outsiders; aspects of personnel management, such as selection interviewing; other to include various miscellaneous examples (Appendix 2(i))
- (b) Respondents were asked whether they had standards of success, targets or performance measures in relation to any or all of the tasks they had mentioned. 10 said they had no such standards, 1 had standards but could not write what those standards were. The rest had standards and expressed, but not always in relation to all three of the tasks enumerated. The way the standards

were expressed was split into four headings for the purpose of analysis. These were: Quantitative, including times and costs; behavioural; subjective or personal view, and feedback from some external source. The quantitative heading was intended to encompass any standard indicating an objective measure. The behavioural covered any instance of a planned outcome actually taking place. An example was for the task "counselling" (04) "whether issues were produced and the client appeared to feel the meeting useful". The qualitative categories of standards classified personal subjective feelings or impression of success as well as, within the fourth category an impression of success derived from some external feedback from whatever source. (Appendix 2(ii))

- (c) Respondents were asked to indicate how they were aware of making progress in the absence of any identifiable measures. There were 9 separate replies reflecting the fact that most had responded to the earlier question. Replies were classified for convenience of recording and analysis, as before, into 4 separate headings. These were "lack of problems" construed as the negative type of standards; "job/tasks achieved", again the achievement of a specific planned outcome; "subjective personal impression" reflecting such statements as 'correct information received - no rumours'; and feedback from staff and others. The categories were somewhat similar to those in the earlier question,

reflecting on the interpretation placed on the wording and meaning of the two questions. Some respondents had answered both questions, perhaps, indicating this confusion. (Appendix 2(iii))

- (d) This question asked for opinions on who should decide performance standards and how they should be decided. Three examples were given as models or thought provokers. The first was that the boss alone should decide performance standards, the second was that the boss should decide them in association with the job-holder, the third was that the post-holder should decide them and negotiate with the boss to gain agreement. In the other category the only (marginal) reason given was to involve other staff either with the boss and the post-holder altogether or that with the post-holder and the staff. Overwhelmingly it was felt that the boss should not unilaterally decide standards, this received no mention at all. Equally, most respondents (96%) thought it should be a matter of joint agreement between the post-holder and the boss. 9 out of the 52 size sample thought standards should be decided by the post-holder then negotiated with the boss. (Appendix 2 (iv))

- (e) Respondents were asked whether they considered it important to make standards explicit. 78% overall agreed that this should be so fairly evenly over the criterion age and staff category range. Agreement

was evenly matched between the hospital and community sector, the nursing staff category and the 46-50 age range. (Appendix 2 (v))

- (f) One question posed concerned the extent to which respondents were aware of the actual performance level against which they took to be the required performance. Overall 63% of a total of 155 responses in relation to the task areas chosen suggested an awareness at the "to a large extent" level. This seemed equally to be the case for both hospital and community sectors. 27% were "completely" aware with some evidence that nursing staff were more aware than the other 3 groups. (Appendix 2 (vi))
- (g) Having identified the awareness level of actual against standard or require performance, the next step was to ascertain the extent to which this performance discrepancy model led to an awareness of learning needs. Or, more accurately, performance needs which might be met through a change or growth in knowledge, skill, attitude or insights. There were a total of 146 entries in relation to the 3 chosen task areas. 56% were "to a large extent" and 15% were "completely" aware of learning needs from the comparison between actual and required performance. Notably, 15% were "a little" aware. Nursing staff were noticeably stronger in their awareness than the other two groups. (Appendix 2 (vii))
- (h) This question sought to clarify whether this awareness of a performance discrepancy was at the conscious or

unconscious level. Respondents were asked whether they consciously identified learning needs at work. 38% reported "a little" and 55% "a lot". All those in the P/T2 category were in the latter group in addition to 60% of the nursing staff. 81% of the Community sector were in the "a lot" against 48% of the Hospital sector. (Appendix 2 (viii))

- (i) Even if individual staff members are aware of a performance discrepancy and are in some way aware that the "gap" is one that can be closed at a personal level by training provision or increased learning, they may not be motivated to explore ways and means. The question sought to ascertain how people sought to become aware or more aware of their learning needs. Categories of forced choice were "feedback", "books", "reflection", "colleagues" and "other". Answers were on a rating scale; 1 highly relevant, 5 little relevance. Overall averages were:

| | |
|------------|------|
| Feedback | 2.04 |
| Books | 2.73 |
| Reflection | 1.77 |
| Colleagues | 1.79 |
| Other | 2.65 |

Feedback was rated highest by administrators, the 25-35 age group and the hospital sector. Books by P/T2, the 36-45 age group and the community sector. Reflection by P/T1, the under 25 and over 50 age groups and the community sector. Colleagues by nurses, the 46-50 age group and the hospital sector entries were made against

"other", totalling in rating 138 suggesting this was a relatively unimportant category and few people were specific in saying what they meant under this heading. (Appendix 2 (ix))

- (j) Respondents were asked to give 3 examples of what they perceived their learning needs to be. It followed that this would probably be as a result of the performance discrepancy model, though not necessarily. The question was designed to capture ideas on learning needs regardless of the means by which they were obtained. 64 separate named responses emerged. The following appeared significant - number of mentions indicated:

| | |
|-------------------------------|----|
| budgetary, financial training | 12 |
| negotiating skills | 7 |
| computers | 8 |
| managerial | 6 |
| time management | 5 |

For classification and analysis responses were split into 4 categories: professional skills, management skills, personal skills, new technology. Examples of allocation were: interviewing, negotiation and communication skills (management), assertiveness, listening problem solving (personal), IR and employment law (management), counselling, advances in patient care (professional).

There were 122 entries. Personal skills rated lowest at 10%, new technology and professional skills at a roughly equal level, 20% and 21% respectively, and

management skills significantly the highest at 47%. Professional skills seemed more important for the 25-45 age group and the over 50's and were rated highest under this heading by the P/T2 group. Personal skills was noticeably significant for nursing staff. New technology was nearly twice as important in the hospital sector than the community sector but management skills were deemed of higher significance in the community. (Appendix 2 (x))

II HUMAN AND ORGANISATIONAL ENVIRONMENT

- (a) Respondents were asked to give the job title of the person to whom they reported as "boss" and, if applicable, any other person with whom they had a functional rather than a line relationship. 23 respondents gave the position title of 1 line superior, 10 gave more than 1 line superior (including 1 who gave 3). Owing to the NHS situation, particularly in the clinical areas, where a line superior and a functional superior give a "two boss" situation, respondents were asked to name a functional head with whom they had a superior-subordinate role. 25 respondents mentioned one in addition to a line superior.
- (b) To focus on the role of the managerial superior, respondents were asked to think of two or three occasions during a recent period of two weeks when a joint discussion, lasting more than five minutes, took place.

Respondents were asked to estimate whether these occasions or occasion provided the potential for learning to be initiated. Overall, 21% felt the occasions provided "a good deal" of opportunity, with 29% estimating "some". Nursing staff and P/T2 particularly perceived learning opportunities and administrative staff more noticeably still. Apart from the very small P/T2 sample, the administrative staff group rated the two lower categories, "hardly any" and "not at all" significantly lower than the other staff groups. (Appendix 2(xi))

- (c) This question considered whether, if boss-subordinate encounters provided opportunities for learning, the process was actively helped by the boss. The answers were a little distorted in that 3 people felt they had 2 bosses. Roughly a quarter of the sample (23%) felt that the boss actively helped "a good deal" and there were more (38%) estimating the "some" help category. All 4 staff categories felt that the boss was relatively helpful ("some") though over half of the P/T1 sample thought the boss was not at all helpful, more than twice both the Administrative and Nursing staff categories in this respect. Again there seemed some evidence of more involvement within the Community sector, with 63% in the "some" category. (Appendix 2(xii))
- (d) The question provided an opportunity for respondents to describe an example of an incident or sample situation

when they met their boss and learning was perceived as having taken place. Most responses were positive because the design of the questionnaire suggests further information to elaborate a positive response to the idea of the boss being supportive. A few people, however, saw this as an opportunity to say why the boss was not helpful. Where the boss was seen as helpful, incidents quoted were mainly concerned with being "put in the picture", being given hard information on procedures or questions of fact, also supporting a recommendation, or making a decision. Sometimes the boss' help is seen as advice giving of the "If I were you..." nature. The boss can be seen as helpful when joint decision-making or problem-solving is involved. However, this is comparatively rare. More often the boss is a "teller" and a "giver".

Responses were categorised under 4 headings: boss giving information, boss helping to clarify, boss engaging in joint problem solving and other. Responses were evenly spread over these 4 categories.

(Appendix 2 (xiii))

- (e) This question sought to explore how the boss was seen in terms of some given sub-roles, as listed by Mumford, which could be perceived as conducive to learning. Respondents were asked to estimate the extent to which these roles described how they saw the boss and to what degree:

- boss as provider and organiser of learning
Half of the 52 replies saw the boss as "some" in terms of being a provider and organiser. This was a view shared equally by the administrative, nursing and PT2 staff, slightly less so by the PT1 staff. Hospital staff were more than twice as likely to see the boss in this role. (Appendix 2 (xiv) (i))
- boss as source of inspiration or ideas
Only one reply suggested this was not so, 14 thought a good deal, 78 thought "some".
- boss as monitor of learning achievement
Putting "hardly any" and "not at all" categories together nearly half of the replies (46%) were encompassed. Monitoring seemed more important for nursing and P/T2 staff and less for administrative and P/T1 staff. Monitoring was seen as less relevant to community sector staff than for hospital staff. (Appendix 2 (xiv) (ii))
- boss as feedback giver
This is an important item because of the high relevance of feedback as a key principal in aiding learning. However, the "some" and "hardly any" categories did encompass together 70% of the replies. A "good deal" produced 18% of the replies, 28% of whom were in the 36-45 age group. Feedback seemed considerably more significant in the Community sector. (Appendix 2 (xiv) (iii))

- boss as model

This is an aspect of learning from a superior which is one of the most traditional. Its influence is often at a non-conscious level but is nonetheless a potent source of learning. Around a fifth (21%) of all respondents deemed this to be "a good deal" in terms of significance and this was particularly so with the 25-45 two age groups. In terms of staff category the boss was less a role model with administrative staff than the other 3 groups. There seemed to be a similar pattern of significance in both Hospital and Community sectors. (Appendix 2 (xiv) (iv))

- boss as coach

We would expect this to be an easily identifiable role of the boss as perceived by subordinates. Almost half of the sample (44%) suggested the boss was "not at all" seen as a coach. Most noticeably this applied to administrators but almost as much to nursing and P/T1 staff as well. Only 10% of nursing and administration staff saw the boss 'a good deal' in the role of coach. The boss was less likely to be seen as a coach in the Community sector. (Appendix 2 (xiv) (v))

- boss as risk sharer

33% reported "a good deal". Including the "some" category (27%) nearly ²/3 felt the boss helped to

share the outcome if things went wrong. This trend was borne out over all categories of staff, except P/T1. The results for nursing and administration were almost the same. The tendency was particularly noticeable in the 2 sectors. Whereas in the two favourable ratings the Hospital sector accounted for 55%, the corresponding figure for the Community was an overwhelming 81%. (Appendix 2 (xiv) (vi))

- boss as mentor

Mentor is described by Mumford as experienced and trusted adviser and the concept of a mentor in the organisation has been well developed by Clutterbuck (1985). Mentor as a role suggests a wider range of activities and inter-personal skills than coach but possibly suffers from being more difficult to recognise as a concept. Despite this, 61% of respondents recognised the role of the boss as mentor to a significant extent, putting the categories 'a good deal' and 'some' together. This has to be considered against those (21%) who saw the boss 'not at all' as a mentor. When examined under staff categories the boss was seen as a mentor particularly by nursing staff and P/T2. Indeed, P/T2 staff were twice as likely to see the boss in this role as P/T1. As far as sector was concerned, Community staff were a little more likely to see the boss as a mentor. (Appendix 2 (ixv) (vii))

- boss as aid to learning, i.e. generally helpful to you in your learning.

As was expected with a general type of question which would encompass a wide range of perceptions, most respondents were able to identify their boss in some respect and therefore answer positively. Only 11% stated not at all. Again, there was a strongly positive response from P/T2 staff as with the previous item. The top 2 categories encompassed 75% of P/T1 staff, 55% of nursing staff and 68% of administrative staff. Spread of opinion between the 2 sectors was fairly evenly matched in the top 2 grades, 67% for Hospital and 63% for Community.

(Appendix 2 (xiv) (viii))

Respondents were asked to add specific comments related to their judgement about the boss as an aid to learning. Comments were relatively positive or negative. Of the 38 entries in this item 50% suggested that the reason for their (presumably) positive judgement was that the boss provided support. Comments subsumed by this item ranged from "systematic feedback, review discussion and objective setting" to "boss is experienced and supports me" and "boss supports independent learning". Sometimes the boss was helpful as endorsing an application to attend an outside course, more often the boss, for those in this 50% category, was helpful as letting people operate independently without close supervision. The other manifest category chosen to describe 10% of the

responses was "joint discussion and agreement" which picked up replies which suggested a coming together of boss and staff member, such as "Boss and I balance each other with strengths and weaknesses". Several respondents commented on the newness of a boss in post, suggestive of recent structural changes in the Health Service. This was sometimes viewed negatively or positively. Lack of experience could occasionally be offset, or partially offset, by the boss' access to wider knowledge through a network at that level. If 60% fell into the two "positive" categories the rest were less certain. "Lack of contact" seemed fairly prevalent a circumstance (23%). The boss was "difficult to contact", one could "learn from his when he is available", even "no clear boss at present". The remainder fell into the "other" category where it was not always clear whether the boss' style was perceived as negative or positive. One respondent felt that "destructive comments were not an aid to learning". There was some "conflict with what the boss should do and actually does" and also, for another "boss intimidated, not a risk taker, never wants feedback". Age did not seem to have a great deal of bearing on feelings expressed, though there was some weight in favour of the 25-35 age group under the "provides support" heading. Administrators were more likely than nurses to feel "lack of contact" with the boss (42%, 13%). Nursing staff were marginally more likely to

receive support from their boss than the other staff categories and significantly (relatively speaking) more likely to engage in joint discussion with the boss. Joint discussion was more a feature of the Hospital than the Community sector though for both "positive" categories the Community sector fared better.

(Appendix 2 (xiv)(ix))

- (f) Respondents were asked about the extent they sought help from the boss when the matter concerned their own lack of skill or knowledge, likely to be met by a learning experience. Just over half felt that they approached their boss "nearly always" or "often". In terms of staff category, P/T2 and Nursing were more likely to do this. Community staff were also more likely to approach their boss than hospital staff. Reasons given for a particular response included the fact of having 2 bosses, a managerial one and a professional or clinical one. The boss could be younger or new or both, with possibly a different type of experience which inhibited an approach for help. 7 people saw the boss as "difficult to contact". The boss was variously described as "being threatened and therefore, a low risk taker", "a model", "encouraging self learning". The boss is a "course provider" (5), supports in a passive role (1). The boss is "more experienced" (7) and was seen as better at the formal level rather than as an informal staff developer.

(Appendix 2 (xv))

Respondents were then asked what they did if the boss was, in fact, unavailable or unhelpful. A number of forced choice courses of action were given, with an opportunity for respondents to specify alternatives. Most replies favoured a fairly proactive alternative. Although of the 48 replies a little over a quarter (14) would "struggle on as best you can", many others would either "ask someone else" (24) or "nail boss down" (21). Several replies ticked up to 3 of the response categories. Alternatives specified under "other" courses of action included seeking advice elsewhere or taking the action considered necessary and asking about it when the boss was available. (Appendix 2 (xv) (i)-(iii))

- (g) Having explored the role of the immediate superior in assisting the learning process of the individual, this question drew attention to the role of colleagues or peers as representing other people in the role set. Respondents were asked to name up to 5 colleagues at approximately the same level as themselves and with whom they would normally have regular contact. Having given the role titles of the chosen colleagues, respondents were asked to assess the value of their contributions as, variously, "feedback provider", "model", "coach", and "risk sharer". Entries were totalled and averaged against each category. The weighting system was 1 high to 5 low in terms of impatience of a particular colleague A-E in relation to

the category considered. The colleague relationship as "feedback provider" was most highly rated with an average score of 2.58, though the other three were also high at 3.61 (model), 3.61 (coach) and 3.26 (risk sharer). The two chosen age ranges, 25-35 and 36-45, both showed high numbers of entries and also high in terms of rated importance given to "feedback-provider". The general spread of importance given to colleagues under the 4 categories applied equally to the 4 staff categories. The nursing staff and P/T1 staff placed a little more stress on the value of colleagues as risk sharers than the other two categories. When analysed by location, community staff scored higher in terms of each category. The differential was greatest in terms of colleagues as "model". Appendix 2 (xvi) (i))

The second part of this question asked respondents to consider the degree to which they learned from the nominated colleagues, regardless of the role of the colleague as learning agent. 40% considered "sometimes" and 26% "a good deal", with 10% voting for "substantially". This meant 100% "substantially" for the under 25 age group. In contrast, 40% of the above 50 age group learned "a good deal" from colleagues considerably in excess of the other age groups.

For the two "high" categories, "a good deal" and "substantially" nursing staff rated 43% to the administrative staff 32%. Comparing the same 2 categories by location, hospital staff ratings were 33% and

community staff 43%. (Appendix 2 (xv) (ii))

- (h) Respondents were asked to select a colleague in their own mind and comment on how relationships or interaction with that colleague was conducive to their learning. Not all were able to visualise this situation or put into descriptive terms how they saw it. Replies ranged from colleagues as "sounding boards", "talk through work-related problems", "tapping into all their knowledge" to "useful for comparison". Replies were categorised for analysis into 4 groups - specialist information, e.g. from Personnel or supplies, giving knowledge and sharing knowledge, facilitating prompting/exchanging, and other. Those who replied in their section mostly mentioned colleagues at the same organisational level as themselves, a few mentioned either someone junior or someone senior to themselves. In some cases more than 1 colleague was mentioned. A few gave general comments about colleagues as a group. When categorising comments under the 4 headings only one tick was given in each case. An alternative interpretation could be seen as applying a particular remark to all 4 categories. Under the specialist information heading there were 7 mentions of Personnel, also mentions of Planning, Supplies and Works. 25% of all replies could be classified under the "specialist information" heading and taken together with "group knowledge" it appeared that knowledge acquisition formed the major value of colleagues as aiding learning. But nearly a third of

replies (28%) were concerned with some form of facilitating, a more subtle way in which learning is prompted. Knowledge acquisition was more important with the younger age groups (up to 35). It was particularly significant with the nursing and P/T1 staff groups. Distribution of replies was roughly equal between the two sectors, Hospital and Community. Facilitating through exchange processes was strongest in the 36-45 age group, was noticeably significant in the nursing group of staff and slightly more important in the Community sector. A particular item under the "other" category was a mention of help with a project including a questionnaire design. Possibly more of this pragmatic help is covered by the "giving knowledge" replies. (Appendix 2 (xvii))

- (i) This question drew attention to the work environment. It sought to explore the relevance of a particular work setting, whether the nature of the work, the culture or content within which it is carried out, to learning at work. An attempt was made to gather a subjective reaction to whether the work was conducive to learning and then the particular department or organisation. It was, of course, recognised that these terms would be perceived differently by respondents. It is not always obvious to people what their "department" is, e.g. in nursing where it may be a division or unit or sector. Equally, differences in interpretation can be given to

the term organisation. As before, liken-type scales were given with the opportunity to elaborate with examples or specific instances to back up subjective judgements in each case.

On the first point, 50% of all entries considered work "very conducive" to learning and 39% "quite conducive". The spread of this reaction over age groups was even with 2 exceptions, the over 50 group were stronger on the "very conducive" while the 46-50 group were markedly stronger on "quite conducive". In terms of staff category, nursing and administration found the work strongly conducive to learning, P/T2 less so. There was little to separate the two sectors. If anything, there was a stronger tendency to view the work factor more positively in the Community.(Appendix 2 (xviii) (i))

The next part of the question asked whether the department and then the organisation was conducive to learning.

All age groups found the organisation less conducive to their learning than the department and the department less than the work overall. The above 50 age group rating dropped from 66%, to 50%, to 33% rating in the 'very conducive' category. Turning to staff categories and putting the two conducive categories together, the administrative staff rating was 88% for the work overall. For the department, the figure had dropped to 77% and for the organisation as a whole 54%.

Comparative figures for nursing were 95%, 78% and 67%, for P/T1 77%, 55% and 44% and for P/T1 100%, 75% and 50%.

Regarding sectors, the Hospital figures were 90%, 73% and 58% and the Community ones 90%, 72% and 54%.

(Appendix 2 (xviii) (ii) and (iii))

Respondents were asked for reasons to back up their judgements, relating comments to each of the separate levels; work, department and organisation. Most of the comments given were positive though there were some negative ones. Among the positive comments, the sort of comments most often made dwelt on the variety of the work, the atmosphere within which staff worked, and the changes or demands integral to the job. Most people felt able to express an opinion in relation to the immediate level of the work itself. There were a few omissions in the entries relating to the other two levels. The entries were categorised under 4 headings - variety in job, task and situation, developments and change situation, demands and challenge of situation and clients, and other aspects. Overwhelmingly, the first category appealed to people in terms of work generally being conducive to their learning (44%). The other two nominated categories amounted to 14% and 24% respectively overall with "other" at 16%. Variety in the job being perceived in this way seemed to be spread evenly over the three age groups between 25 and 50. 50% of both administrative and P/T2 staff categories mentioned

variety, with a little less for nursing at 44%. The second category - developments and stimulation - was rated only by administration and P/T1 and not at all by nursing and P/T2. Over twice as many nurses compared to administrators thought demands and challenges of the work made work conducive to learning. By location, variety of work was substantially perceived as less important in the Community sector but almost twice as important to this sector compared to the Hospital sector were the second and third categories.

(Appendix 2 (xviii) (iv))

Using the same 4 categories with the next level - the department - variety in tasks is now 11% in numbers of mentions overall, a quarter of the previous total; developments and stimulation are 11% and demands and challenge 30%. "Other" is now 46%, category 2 and category 3 are mostly seen as significant in the 36-50 age groups and most noticeably at 52% by administrative staff. All staff, age and sector categories were much more vague in their replies to this item owing, probably, to diverse interpretations and this accounts for the high proportion of replies in the "other" category. As in the first part of results from this item, "demands and challenge" are far more significant in the Community sector and "variety in the task" in the Hospital sector. (Appendix (xvii) (v))

The third and last level within question 2(i) dealt with whether the organisation, as a whole, is seen as conducive to respondents learning. Fewer people were able to respond to this question, probably because of the difficulty of identifying with the organisation as a concept. Staff mentioned changes and developments affecting the organisation as a whole which provided new experiences, fertile to new learning and the challenges of new developments coming along with the same or reduced resources, meaning a greater need to develop coping strategies. In some cases, the reasons given for the department being conducive to learning was bracketed with the organisational perspective. They were inseparable as perceived by several individuals. For the purpose of analysis, three categories were chosen to summarise the entries with 'other' to encompass the otherwise unclassifiable. These categories again were as used for the first and second part of this question. Overall 29% of replies came in the "demands and challenges" category. This was similar to the earlier part of the question. However, at this level "variety in tasks" is less important at 4% and "developments stimulation" higher at 17%. "Demands and challenge" were perceived as important in the highest age bracket in above 50 at 66% and particularly so by the administrative staff group. "Developments stimulation" was most important of the 4 staff groups to P/T1. There was a strong contrast in how the first 2 categories

were seen by the 2 sector. Much more relevance was perceived by the Hospital than by the Community sector. Conversely "demands and challenge" appeared to be more significant in the Community sector, 42% as opposed to 26%. (Appendix 2 (xviii) (vi))

- (j) This question attempted to focus respondents on organisational and work process related issues which might be intervening variables between the individual and new learning outcomes. The categories chosen were: clear objectives and policies, rapid rate of technical/managerial/organisational change, pace of work, innovative nature of work, and varied activities inherent in the job. With a relevancy perceived on a high/low 1 to 5 scale mean scores were 1.94 for 'varied activities', 2.10 for 'clear objectives', 2.39 for innovative nature of work', 2.84 for 'rate of change' and 3.12 for 'pace of work'.

'Varied tasks' was rated highest by the 25-35 age group, though only slightly less by the 46-50 group. 'Clear objectives' was deemed most relevant by the youngest and oldest groups.

All 4 staff groups perceived the varied tasks inherent in their work as highly conducive to their learning, clear objectives were particularly important to P/T2.

'Pace of work' was marked fairly low by all staff groups and 'rate of change' particularly by administrative staff.

The pattern regarding location seemed to be that the hospital sector rated varied tasks and clear objectives as more conducive to their learning than did Community sector staff. Only 'innovation' scored more highly in the Community (Appendix 2 (xix)).

- (k) The question probed the extent to which the employer was seen, from a policy viewpoint, as encouraging learning and staff development. Explicit help, i.e. active and open encouragement, and implicit help, i.e. assumed to be present but not openly expressed, were asked separately. The perception of an employer helping explicitly seemed fairly equally divided between "hardly at all" (38%) and "a lot" (40%). On the negative side, the 25-35 year group and the 50+ year group seemed to be in broad agreement in complete contrast to younger age groups. The latter groups, 36-45 and 46-50, both saw a good deal of explicit encouragement.

Regarding staff category, the P/T1 group were more than twice as likely to see the employer giving little explicit encouragement. Both nursing and P/T2 substantially saw explicit encouragement being given, (52% and 60%).

There seemed to be a contrast in perception between the two sectors. The Community sector seemed also twice as likely to perceive favourable explicit encouragement as the Hospital sector. (Appendix 2(xx)(i))

Implicit encouragement, i.e. assumed but not expressed,

was felt to be partial ('some' = 55%) by over half of the replies. Few people in any age group felt there was little implicit encouragement. About a quarter (except in the 50+ group, which was a half) of all replies thought there was a lot of implicit support. As with the earlier part of the question, the P/T2 group were very confident of support whether expressly given or implied. P/T1 were of the opposite opinion again both parts of the question leaving this out. The nursing group was less sure of support with the administrative group about the same.

Although the second part of this question revealed a central tendency perhaps where perception was less clear, with less objective evidence on which to base a judgement, a similar distinction as before emerged between the two sectors. The Community sector was much more confident of support from the employer in developing themselves. (Appendix 2 (xx) (ii))

- (1) This question attempted to look at factors outside the work situation which might or might not be conducive to promotion of learning. The characteristic area of potential influence is given by Mumford. The first part of the question was a subjective reaction to the question. It was positively responded to, the "quite a lot" and "substantial" categories accounting for 73% of the replies taken together. Little of a pattern emerged with regard to age groups. Only the 25-35 group

lagged a little in responding positively to the likelihood of factors outside work being conducive to their learning. P/T2 emerged as the highest, the administrators as the lowest with the other 2 groups in between. The Community group again emerged stronger but taken overall not by a large margin. (Appendix 2 (xxi) (ii))

The respondents were asked to state the factors they had taken into account in expressing their judgement. Replies covered a wide range from family, friends and contact through social activities to media influence. 8 replies specifically mentioned a spouse or partner or fiancée as being a source of learning. Replies were categorised under the 4 headings of personal reflection, family influence, extra-mural activities and other. The latter category included 4 replies which stated that life outside work had absolutely no influence on their learning. Of the 4 categories, extra-mural activities covered 48% of replies with personal reflection 34% and family influence 30%. Personal reflection was strongest in the 36-45 group, with administrators and in the hospital sector. Family influence was most important to the 46-50 year group, was felt most keenly by nursing and P/T2 staff and particularly in the Community sector. Extra-mural activities were significant for all age groups, a little more so for the 46-50 year group. The administrative and P/T1 staff were very "active" here and it was a much more

significant factor for the Hospital sector (56%) compared to the Community (20%). (Appendix 2(xxi)(ii))

III LEARNING OPPORTUNITIES

- (a) Respondents were asked what learning opportunities which occurred in their work. Replies ranged from "everything that happens is a learning opportunity" to "asking the telephone manager how the telephone system works in the Hospital" and "psychology of staff communication/liaison". Entries were subsumed into 4 representative categories, meetings and contacts, new problems and equipment, day-to-day practice and other. The percentage for meetings and contacts was slightly over half at 52% followed by day-to-day practice at 39% and new issues at 27%. The other or miscellaneous category was 19%, roughly a fifth, indicative of the very wide spread and varied range of items mentioned. Meetings and contacts was directly significant in relation to age, under 25 it was 0%, 25-35 42%, 36-45 53%, 46-50 77%. It was slightly less but still significantly high at 60% for the above 50 age group. These % figures reflected the number in each age range mentioning a learning opportunity judged to fall into the appropriate category. "New issues" was rated highest by the 25-35 group at 38%. "Day to day practice" highest by the 46-50 group at 44% and "other" by the 36-45 group at 26%

There were 51 respondents for this item, some of whom mentioned opportunities in several categories so that the percentage figures reflected a representative profile of the total number of entries in a particular category.

Regarding staff category, the administration group mentioned all the three main categories roughly equally, nursing gave more weighting to meetings and contacts (65%) and day-to-day practice (45%). P/T1 and P/T2 weighted meetings and contacts heavily and also day-to-day practice for P/T1. Hospital and Community staff both rated meetings and contacts highly. Community rated new issues a little higher than Hospital and day-to-day practice a little lower. (Appendix 2 (xxii))

- (b) This question pursued learning opportunities to a focus by asking respondents to give an example consciously used. Again, the question prompted a very wide range of replies. For convenience and for comparison the same 4 categories were used as for the previous question. Meetings and contacts emerged overall as the highest figure at 54%, new issues at 24%, day-to-day practice at 4% and the "other" category at 18%. In making a general comparison with the preceding section, 'meetings and contacts' achieves the same set of significance in the ratings. "Day-to-day practice" is noticeable less significant. This is rather less than what one might expect. If learning opportunities occur in routine work on a daily basis, as perhaps Mumford would assert,

we would look for those sort of occurrences being identified. Age relationships suggested that 'meetings and contacts' were significant somewhat more in the older groups.

No pattern seemed to emerge significantly from the staff category and sector breakdown. (Appendix 2 (xiii))

- (c) This item asked respondents to estimate the relevance of certain types of learning opportunity, ranging from the truly 'natural' opportune situation through varying types of pre-determined situations, i.e. known in advance. The list chosen for this part of the questionnaire was, as suggested by Mumford, separated under the two umbrella categories of 'at work, where the task is the main focus and learning is subsidiary' to 'away from work, where the learning is the main focus'. The lower the score indicated, the higher the item was seen as relevant. The first category 'unplanned learning through current job' appeared the highest rated (lowest score). With an entry total of 47, the mean for this item was 1.79. The next item, perhaps predictably, was 'courses and seminars', the most easily identifiable type of off-job learning experience. This emerged with a mean of 2.13. 'Special assignments' and 'reading', which could possibly be related, scored 2.47 and 2.55. Planned learning outside special assignments possibly just by being given additional responsibilities, covering for sickness or other absence or 'acting up' was 2.73 and 'within current responsibilities' 2.85. Experience

outside work was 3.44 and 3.05 in the second, more vague category. Planned learning with boss or colleague, including such things as a coaching or briefing session, emerged as the lowest rated item at 3.30.

Regarding correlation of scored perceptions against age, unplanned learning was most significant in the youngest and oldest groups. Courses and seminars were equally significant to the older group but least significant to the youngest. The situation was very similar with the 'reading' category. Do older staff read more? or have more time to read?

Administrative staff scored highest in relation to the 'unplanned' category, lowest for 'causes and seminars' and 'reading' and 'special assignments'. They were also lowest for 'planned learning within' current job responsibilities'. Nursing staff rated the 'unplanned' category high, within a mean difference of 0.08 of the administrative group. P/T2 rated each item highest or second highest out of the 4 staff groups.

The community sector emerged with higher scores on average compared to the Hospital sector on all items except one, 'planned created learning from the boss or colleague'. (Appendix 2 (xiv) and (xv))

- (d) This question represented a form of the critical incident method applied to the identification of the source and means of learning on an individual basis. The critical incident method is a way of analysing performance by seeking to isolate an incident when

performance was substantially better or worse than normal. In so doing, aspects of performance which would not normally be ? or appear significant can be highlighted. The unusual express aspects of performance from which general statements about skill or knowledge or attitude discrepancies, can be made.

Applied to an identification of how people learn and the extent to which they learn from the work situation, the concept is a direct test of the Mumford hypothesis. Fourteen respondents were unable to reply to this question. It may be that powerful learning experiences can be recalled in principle but not in specific detail. Equally, an incident may be recalled because it stands out in the memory for varying reasons but this need not be the same as something which positively gave rise to learning.

Replies covered a wide range of incidents. Difficult situations with staff, project crisis, disciplining a drunken member of staff, preparing and presenting management's case to an industrial tribunal were some of those mentioned. Staff found it easier to generate a learning experience e.g. "organising disparate groups to force decision on changing provision of cataract operations" then a specific event, e.g. "serving of meals and taking on extra staff particular incident - check facts/don't panic". More often the incident or activity was recalled but not the learning itself, which

the question asked the respondent to describe in general terms.

For convenience, as in earlier cases, the replies were put into 4 categories - meetings and contacts; new problems; equipment and situations; day-to-day practice; other, e.g. courses.

Of these, meetings and contacts accounted for 12% of occurrences, new problems 31%, day-to-day practice 24% and other 31%.

Other was perhaps a little high here, suggesting an unjustifiable classification or the need for an additional category. "Meetings and contacts" were more significant with the older groups, were particularly significant for P/T2 and administrative staff and were totally irrelevant for the Community sector.

"New problems" were significant for all but the very youngest and oldest groups, were very highly rated by administrative staff (47%) and by P/T2 (50%) and were more important in the Hospital sector (33%) than in the Community (25%). "Day-to-day practice" emerged as important to younger staff but also to the above 50 group. Again, this type of experience appeared significant to the administrators (35%), a little less to P/T1 (25%) and hardly at all to nurses (14%) and P/T2 (0%). "Day-to-day practice" was more often mentioned by Hospital staff. "Other" was much more significant for the Community (62%) more than double the Hospital sector (24%). (Appendix 2 (xvi))

- (e) Having attempted to explore factors influencing learning at work on a positive basis, this question sought to elicit information on what people felt prevented their use of learning opportunities perhaps even when those potential opportunities had been perceived. Categories were stated on a forced choice basis with an opportunity to add other reasons where appropriate.

The first category was "attitude of others", taken to mean such things as refusal to share information, space or time accounted for 28% of total questions. There were 52 respondents with, counting multiple entries, a total of 107 mentioned. "Pressure of other work" was 67%; "problems of communication" was 32%; "failure of others to recognise staff members' needs" 42% "failure by self to recognise the opportunity when it occurred 34%; and other 7%.

"Attitude of others" became less significant according to increasing age of staff, "pressure of work" was high for all groups, "communication problems" slightly higher with older age groups, "failure of self" equally likely for all but the youngest and oldest groups.

"Attitude of others" was lowest for administrators and highest for P/T2. For "pressure of work" it was the opposite. "Communication problems" was less likely to affect administrators' ability to learn. "Failure of self" and "other", it was lower for the other three dimensions. (Appendix 2 (xvii) and 2 (xviii))

IV MANAGEMENT OF LEARNING

- (a) This question sought to ascertain the importance perceived by the respondent of certain environment features of the managerial role on personal learning. The model chosen was Rosemary Stewart's 3-dimensional analysis of managerial work - demands, constraints and choices - to ascertain the influence of these dimensions on how learning opportunities might occur and be consciously used as an integral part of normal work. Respondents were asked to think of an example of a single task or area of work and describe it in terms of demands placed separately on the individual by boss, colleague, subordinate, and consumer/client/patient. Replies were collated under each staff relationship across a number of approximated headings. Demands placed by the boss and others were categorised under the headings: job done on time, standards kept up, personal needs, service improved and other. The demand placed by the boss was largely in terms of pressure for completion, the first 2 categories mentioned accounted for 65% of replies. (Appendix 2 (xix)). Demands from colleagues were largely in the area of personal needs, such as for information or support (50%) (Appendix 2 (xx)). Subordinates were similar (67%) (Appendix 2 (xxi)). Clients wanted service, support and a good product generally - job done on time (11%), standards kept up (33%), personal needs (30%) and service improved (16%), other (8%) (Appendix 2 (xxii)).

Respondents were then asked - with the example of the original task or area of work still in mind - to describe constraints which governed how they responded to the demand offered or made severally by the boss, colleagues, subordinates and clients/consumers/patients. Constraints were categorised after analysis as to do with job content, availability of resources, policies and procedures, skills and attitudes, and other. From the replies given responses to demands placed by the boss were constrained by resource availability (54%); for colleagues it was job content (24%), resource availability (30%) and skills/attitudes (20%).

(Appendix 2 (xxiii) and 2 (xxvi))

- (b), Respondents were asked to describe with an example one
- (c), of the choices potentially available to them in relation
- (d) to the original task, i.e. bearing in mind demands and constraints stemming from the expectations or influences of various people in the role set. They were asked how they actually used the choice as a learning opportunity and they might use the choice available. The general intention was to check how awareness respondents were of learning opportunities to be gained from engaging in new experiences which could be gained from alternative courses of action at work.

Staff found it difficult to identify these actual and potential choices of action. There were 36 entries for the first part of the analysis and 33 for the second. Choices were categorised as innovative factors,

developing cognitively, keeping to rules, i.e. using choices to learn about and adhere to the formal system, new insights and others. As regards actual choices made, the emphasis was on innovative factors (36%) and new insights (25%), potential use of these choices were innovative factors (51%), developing cognitively (21%) and new insights (24%). The Community sector tended to rate developing cognitively higher than the Hospital sector which, in turn, rated innovative factors more highly. This was for actual use of choices. For potential use of choices both sectors rated about evenly in each of the 5 categories. (Appendix 2 (xxvii), 2 (xxviii))

- (e) Respondents were asked to rate their competence as an & effective manager from a forced choice list then as a
 - (f) learning manager, again from a given list of qualifying activities. In formulating the two questions an attempt was made to look for a perceived relationship between effective managing and effective learning. Of the presented list, an average respondent saw himself most highly rated in terms of planning tasks and translating plans into action and lowest rated in terms of reviewing results. Respondents were asked to suggest further items which they considered appropriate. These were categorised as communication, resources and people. The last named received the highest average rating of the whole list (Appendix 2 (xxix) and 2(xxx)).
- Equally, respondents were asked to rate their personal

effectiveness as learning managers. The item which attracted the highest average score was "listening to others" (1.82). Respondents were keen to share information with others (1.86) and were aware of their own limitations (1.88). They were least effective in establishing criteria for themselves (2.77). The Community sector "scored" higher than the Hospital sector on all aspects except listening to others, sharing information and reviewing what has been learned (Appendix 2 (xxxi) and 2 (xxxii)). Comparing the two measures, the following similarities/differences emerged:

| | | |
|--------------------|-------------------------------------|------|
| effective manager: | defining standards of performance | 2.41 |
| effective learner: | establishing effectiveness criteria | 2.77 |
| | Difference | 0.36 |
| effective manager: | planning activities | 2.06 |
| effective learner: | planning on learning | 2.59 |
| | Difference | 0.53 |
| effective manager: | setting objectives | 2.37 |
| effective learner: | identifying learning needs | 2.38 |
| | Difference | 0.01 |
| effective manager: | reviewing results | 2.68 |
| effective learner: | review what has been learned | 2.65 |
| | Difference | 0.03 |

V LEARNING STYLES

- (a) Respondents were asked to complete both the Kolb & Learning Styles Inventory (LSI) and the Honey and Mumford Learning Styles Questionnaire (LSQ). Because of the problems of interpretation by respondents of the LSI brief it was felt that the LSQ was the more useful of the two for the purpose of analysis and commentary. Averages for all entries for the LSQ were Pragmatist 13.3, Reflector 12.3, Theorist 11.7, Activist 10.5. One Pragmatist was highest at 16.0 for the under 25 age group, reducing progressively to 13.3 for the over 50 group. Reflector tended to do the same from 14.0 to 12.3, Theorist a little less so from 13.0 to 12.1, Activist from 13.0 to 10.5 but with variations in between.

As regards staff grades, for the Pragmatist style administrators were slightly higher than nurses 13.5 and 12.8 but both were lower than P/T1 and P/T2 14.0 and 14.0. Administrators were higher than nurses for the Reflector style 12.9 and 11.6, while P/T1 was 12.4 and P/T2 was 13.0. Administrators were again slightly higher, for the Theorist style, than nurses with P/T2 at 14.5. Lastly, for the Activist style, nursing staff were highest of the 4 staff groups at 10.7. Community sector staff were slightly higher as Activists and slightly lower as Reflectors, otherwise about the same as the Hospital sector (Appendix 2 (xxxiii)).

- (c) Respondents were asked whether they considered their scores on the learning styles questionnaire adequately reflected how they saw their own prevailing learning style, 54% felt "for the most part" these scores did. P/T2 were most certain about this (75%) with nursing staff almost the same (62%) (Appendix 2 (xxxiv)).
- The question asked respondents to give reasons for their conclusions in 5(c). Replies were categorised under the headings "learn more from experience" (as a self-assessment), "adequate description", "score matches self perception", "other".
- Scores were 25%, 20%, 12% and 42%. All staff categories except P/T2 considered learning more from experience to more applicable to their case, there being close agreement among them (26%, 28%, 28%) (Appendix 2 (xxxv)).
- (d) Asked how they would describe themselves as a learner, 26% considered themselves to be "proactive" in one sense or another, 12% felt they used learning opportunities, 21% accepted the Readings of the LSQ as an adequate description of themselves as learners and 34% came into the "other" category. Proactive learning was particularly important for the 36-45 and 46-50 age groups (41%, 42%), also for nursing staff more than the others (41%). Administrators emerged as highest in terms of using learning opportunities (29%). Hospital staff were slightly more proactive than the Community sector, and twice as likely to use learning opportunities (Appendix 2 (xxxvi)).

- (e) Asked how they would improve their ability to learn, respondents substantially considered they would consciously change their personal style of learning (45%) and this was directly related to age, the older groups progressively more certain of this. 27% would use learning opportunities better and 18% would improve themselves through some form of off-the-job training (Appendix 2 (xxxvii)).

SECTION 5: ANALYSIS OF RESULTS

The Main Study

I LEARNING NEEDS

- (a) Respondents had no difficulty in identifying tasks but varied in the extent to which they were able to distinguish between a task and an activity. A task has a discrete beginning and end, an activity is a description and lacks specificity. Lack of clarity in making this distinction could influence ability of individuals to focus on performance criteria or standards and thence learning needs.

From the choice of tasks deemed to be "critical" it is significant that communication and personnel management account for nearly $\frac{1}{2}$ of those chosen. This reflects the labour intensive nature of health care organisations and the multiplicity of function, disciplines and departments needed for co-ordination of resources and activities.

- (b) A high proportion of respondents not only agreed that they had performance standards but were able to describe how these standards were expressed or recognised.

Quantitative measures accounted for a fifth of the total number of standards (118). This was surprising in view of the notorious difficulty in measuring or expressing outcomes in health care work. The lowest, 12% of entries, was the qualitative category of feedback from others which again was surprising in view of a supposed

inter-dependency of functions and departments in the Health Service. The behavioural at 38%, more than 1 in 3 indicated that planned outcomes which are observable and recognisable are important, even if they concern inputs rather than outcomes and outputs. In terms of staff category, administrators notably identified with quantitative measures of performance, nursing staff with the behavioural (and even more so the professional P/T1 staff). Generally, the more impressionistic measures of success were held to be relevant by health care delivery staff while the administrators or "business managers" held to the more factual quantitative ones. The contrast is between planned targets and planned events. The latter are outcomes which are observable and can be seen to take place and this is seen as success rather than an achievement, being within a planned time/cost framework. There is also an emphasis on problems being overcome or forestalled. Standards are a state of no complaints or few problems encountered, a something avoided rather than a something achieved result. Overall even taking in the administrators tendency to favour objective measures, the bias is towards the behavioural category for all groups, both locations and age groups. The reasons are largely concerned with problems of predicting outcomes in relation to inputs with any certainty in a situation where there are many intervening variables which are difficult to either map or to control.

- (c) Measures of assessing progress where it was felt no specific standards existed seemed rather like those in the answers given to the previous question. For 3 out of 6 age groups and out of the 3 giving replies under this category, success was measured by the task actually being achieved. However, subjective impressions and feedback from others was also felt to be significant. Hospital staff favoured the perhaps 'more objective' measures of lack of problems and job/task achieved. Community staff favoured the more subjective measures as well as feedback from others. With the earlier question, the Community staff reaction was generally similar with the Hospital staff replies being more evenly distributed over the 4 categories.
- (d) Agreement that performance standards are a matter of joint agreement between boss and post-holder was almost unanimous, perhaps reflective of the democratic and perceived participative nature of health care work within the NHS culture. This is remarkable in that one would expect the boss to set performance standards, being accountable for results achieved and therefore needing to decide and set appropriate objectives and performance measures.
- (e) The overwhelming view seems to be that staff seek the guidance which explicit performance standards offer. Of those who do not, we may detect that in the Community sector the upper age of nursing staff have reservations although the sample is small in relation

to the Community sector or senior nursing staff (by age), or both.

- (f) The survey reveals that around 90% of the sample were relatively aware of their actual performance against required performance. Since most had earlier indicated that they did have standards, although expressed more often in the behavioural sense than in quantitative terms, it seems that this is sufficient for the "gap", if any, to be identified. This may be significant in view of a conscious recognition of a performance discrepancy being potentially instrumental in motivating individuals towards identifying learning needs and possibly working out an agenda to meet them.
- (g) Nursing staff were significantly ahead in their awareness of learning needs using the discrepancy model. Why should this be? There is here a more formalised and cohesive tradition of education and training both professionally and, in more recent times, managerially. This may be partly the reason for the high level of awareness a cultural reason d'etre rather than one related to the technology of the work in terms of health care delivery.
- (h) Most noticeable here is confirmation of the tendency for Nursing staff to identify learning needs and to be conscious of doing so. Again of significance is the greater awareness of Community staff.
- (i) The significant comment here is concerned with the importance of reflection on things which go wrong as a

means of identifying learning needs. This item was seen as reaching the highest level of relevance by both hospital and community staff. This suggests an inability to "make sense of" feedback through an "internal conversation", something that is not an obvious natural skill. Worth noting, however, is the almost equal value placed on discussion with colleagues which enables an "external conversation" to take place. The place of colleagues in facilitating learning and the growth of insight is a feature running through the whole research study. Whether this is a feature of health care work or a phenomenon associated with all labour intensive employment organisations is not clear.

(j) Management skills appear to be particularly important, probably due to the level and composition of the sample group but also to publicity given to this area of training. This trend is emphasised by organisational changes and new grading systems. There is a heavy emphasis on computers and budgetary control reflecting, possibly, the influence of the Konner report on Clinical Information. The interest in budgetary control and planning is also likely to be a product of new structural and management changes. Similarly, the mention of employment legislation and Industrial Relations (IR) procedures show an interest in personnel management coming from "commercial approaches" to performance related pay, staff planning, recruitment and fixed-term contracts. Management skills attract

attention particularly applied to "approaches" and "process", e.g. managing resources, measuring standards, planning and contemporary items such as time management. Other "buzz" words mentioned are "stress" and "managing change". Are these items which have genuinely been identified from a realistic examination of work or just something of fashionable relevance? As expected, personal awareness is not mentioned to any great extent. Self awareness is something many people are not immediately conscious of as being not obvious or tangible in the sense that management techniques or knowledge areas are.

II HUMAN AND ORGANISATIONAL ENVIRONMENT

- (a) See separate analysis.
- (b) Overwhelmingly participants saw encounters with their & bosses as opportunities for learning which process was
- (c) strongly activated by the boss, particularly in the Community sector. Why should this be? It is likely that the pace is different, the work less constricted by hierarchical relationships. There is also likely to be more discretion given to individuals and perhaps more emphasis on joint problem solving rather than just boss control decisions.
- (d) Nearly a third of the incidents mentioned which are deemed favourable for learning derived from the boss are concerned with giving information. This impression

seems to be evenly spread over the age groups, is particularly applicable to administrative staff and P&T staff rather than nursing staff and is almost twice as likely to apply to the Community rather than the Hospital sector. The boss as a helper in clarifying issues seems also more significant in the Community though here the boss is less likely to be seen as involved in joint problem solving. Community roles for the boss seem to be more directive, more boss-centred.

- (e) The boss is significantly seen as a provider of learning, probably because the boss conventionally is the authority to agree formal training opportunities. The fact that this is less so in the Community sector may reflect less formal training opportunities there. Perhaps this bears out the perception in the previous item where the boss plays a direct role in aiding learning, possibly in boss-centred encounters within the realities of the job situation. The boss gives technical and professional information; information about the job or organisation drawn from his or her own network of contacts.

The boss is used to get a decision made, to gain support or just to bounce off an idea. Sometimes the boss confronts and develops self-learning positively or negatively. Boss is not seen as helping learning if thwarting efforts or not supporting recommendations. The boss is relatively unimportant in monitoring learning achievement, including checking and reviewing

learning with staff. This activity seems to be more important for Nursing staff and less so for Community staff. Probably this reflects the hierarchical nature of reporting relationships and the nature of supervision and management among hospital sector nurses, whereas Community staff are less closely supervised and are "left to get on with it". In this respect the relative autonomy, and therefore perhaps greater scope for self-starting learners in the Community sector, is once more borne out. Administrative staff do not see monitoring by the boss as a significant feature of their learning. Perhaps there is greater autonomy and less supervision for administrative staff whichever sector they are working in.

The boss, again, is significantly important in the Community sector as a feedback provider and also as a role model, though in the latter case the difference between sectors is less marked. Once again, it seems that although there is a degree of greater autonomy in the Community sector the boss is still a powerful source of learning. In the Hospital sector, particularly within the Nursing hierarchy perhaps, there is less role ambiguity, greater cohesion within the separate ranks and levels of management, meaning a closer influence exercised by the boss.

The results of the question about the boss as coach seemed to suggest an underdeveloped dimensions of the development role overall. Not even in the Hospital

sector and for Nursing staff, where closer supervision and a defined hierarchy might be seen as normative, was this role significant. Only for PT/2 did opinion favour the boss as coach.

Risk-sharing produced perhaps a surprising result. Whereas we would, perhaps, expect to see a strong coaching role in the Health Service with its training traditions, its internships (practical period of apprenticeship at work) and little evidence of institutional support through the boss for risk-sharing, the reverse seems to be true. There is a possibility that the support for risk-sharing reflects a period of uncertainty in the Health Service where rapidly changing conditions mean policies and procedures are unclear. In this situation a risk-taking move entrepreneurial style of management and climate has become normative.

The next item concerned the extent to which the boss was seen as a mentor, further defined as experienced and trusted adviser. Two points seem to be significant here when analysing the results in answer to this item. One is that well over half of the sample group did recognise the boss as a mentor. Two, this perception was substantially the view of nursing staff, again as previously noted. Probably because of traditional views about support roles in the nursing hierarchy.

Last in the data connected with the boss role was that covering 'general aid to learning'. It was less

apparent that the Community sector viewed the boss role as an aid to learning more highly than the Hospital sector. Possibly this is due to the independent practitioner role, official or assumed by expediency, of those from the Community sector.

- (f) Significantly, the results of this question show that help from the boss is not invariably sought in times of need. This seemed to apply across the board, particularly in the case of P/T1 staff. Possibly the reasons reflect the prevailing organisational uncertainty where many new appointments are being made or have recently been made. There may be something more. First, confidence, fear of exposing weaknesses may be significant features if not always made explicit. From the alternative courses of action surfaced assuming the boss was not available a good deal of self-motivation in seeking alternatives emerged. People did seem to take responsibility for taking other courses of action when they had to rely on their own efforts.
- (g) Colleague relationships are important to Health Service employees as an aid to their learning. They are particularly useful in providing feedback in relation to the results of decisions taken or activities carried out. Of equal importance are the roles of colleagues as 'model' or 'coach', particularly in the Hospital sector, presumably where staff work physically closer together under one roof and the opportunity for frequent and routine daily contact is more likely than

in the Community sector. The role of colleagues as 'risk sharers' emerges as quite important, particularly for Nursing and P/T1 staff. Again as previously noted, this may be a reflection of current organisational changes in the Health Service and the resulting uncertainty about role responsibility and authority. What emerges also is the extent to which nursing staff learn from colleagues. Nurses are organised in close-knit hierarchical structures with clear organisational boundaries and lines of communication. Perhaps opportunities for learning within the job are culturally and structurally supported.

- (h) From this analysis a good deal of facilitating takes place consciously or perhaps fortuitously as a result of people talking together and through the process of "mind rubbing on mind". Perhaps two features are of note here. The first is concerned with the use of specialists. A feature running through both questionnaire replies and informal information given at interview was the importance of Personnel advice in the area of industrial relations, grievance and disciplinary issues and employment issues generally. Personnel Management emerges as a key function in a situation where there is greater flexibility within the Whitley system, more local productivity bargain and greater discretion exercised by departmental heads in employment matters.

- (i) Most staff in the NHS find the work satisfying in terms of it being conducive to their learning. What are the reasons for this view which was so strongly expressed? We may assume there is interest and variety in health care work, whether direct patient contact or indirect through support services. Again there is a marked emphasis given to work being conducive to learning by nursing staff.

The figures reveal a progressive lack of perception of the environment being conducive to learning. A problem arises in that people will see the department or organisation representing procedures, policies, or even the day-to-day behaviours of colleagues or superiors. What is remarkable is the degree of agreement among all age groups and staff groups and also both sectors. The NHS is seen, possibly, as a large and complex organisation in which staff can best identify themselves with an immediate work area and level.

The approach of medicine and nursing is to emphasise knowledge acquisition and professional updating. This is a normative behaviour and is integral with work activity. It is easier for such staff to identify themselves with the work as an activity rather than the environment of a level or place in the organisational and management hierarchy. There is a hint that learning opportunities are restricted for some for reasons of political prestige or status. Knowledge is power; if knowledge is shared power may be lost. Another barrier

is the pressure of time and the lack of resources, although at least one person saw this pressure as a problem-based opportunity to learn. Factor of size of unit and isolation of unit seem to affect learning opportunities, there are more in larger units for example. Overall learning is related to variety and change, experienced people to draw upon and the size and range of the network of personal contacts. This is particularly relevant to administrators who have an 'umbrella' role. They move about, co-ordinate, have considerable variety in their work. They identify at organisational and department level the environment as being conducive to their learning.

- (j) The highest scoring factor out of the four given as promoting learning at work was "varied tasks". Mumford's thesis is based on using opportunities at work to aid learning. If there exists a richness of technology, social behaviour, a wide range of activities and a variegated pattern of tasks, the likelihood of this must be greater. The material is there for the process to feed upon. Health care work with its professional groups and range of work potentially provides an excellent environment for this to happen. "Clear objectives and policies" scores next highest. If this is an accurate reflection of the Health Service as a whole it probably reflects a new emphasis on objectives brought by the current business management approach. Objectives are important to provide a setting

for learning and development activity, both formal and informal. Objectives are also motivational and provide a yardstick by which to assess progress.

Looking to age links, "varied tasks" are most significant to the 25-35 and 46-50 groups, perhaps reflecting management level and discretion to make use of or to be given such tasks. Administrative staff came out highest for "varied tasks" as the nature of the role would have us to expect. Administrators are best enabled to move about and to engage in work across many of the functions and activities of the organisation.

Administrators rated "clear objectives" highly. Again, as managers of administrative functions this must be deemed important to them. However, nursing staff came out with the highest score for all other 3 categories. Nursing work obviously affords a good deal of opportunity for work-based learning. Reaction to features of the present and future organisation seems to be quite positive in this report.

- (k) Explicit encouragement of learning at work was remarkably polarised overall. This is very much an individual perception. Perhaps it is also a reflection of how well those policies are communicated to staff or perceived as either relevant or helpful.

In terms of favourable reaction by age, the 46-50 group came out highest. Equally, though, the 50+ group were far less positively inclined. Age does not seem to be significant in how staff react to the employer's

specific policies on training and development.

There is a marked contrast in the response of P/T1 and P/T2 to this question. This is perhaps a matter of statutory regulation or professional body support which may lead to explicit training opportunities. This could also explain the positive response by nursing staff who have, for a long term, enjoyed well organised training programmes, obviously for clinical matters but also in other areas as well. This does not explain the even spread of the administrators' scores. Why do they not regard formal staff development policies more favourably? (a lot = 31%).

On sector, the Community staff reacted more positively. This is possibly surprising. With other factors concerning the environment, the work setting and the management style, one could argue for contrasts between the two sectors group rise to the differences emerging in this analysis. For a policy officially embracing both sectors, this difference should not emerge.

The polarity of the first part of this question did not extend to the second. Only the top age groups felt very positive about implicit support. Administrative staff (and P/T2) reacted favourably. Perhaps administrators are better able from their position in the organisation to judge the feeling suggested by formal policy or to directly influence the attitude of the governing body to support of staff development. The reaction of the Community sector maintains the trend of

the results. However, the central tendency of the judgements made overall possibly reflects uncertainty about people's knowledge of the employer's implicit attitude to training and development.

- (e) This question was one felt by Mumford as being particularly significant. Learning should not stop at the factory gate or the office door. But what factors are important and do people possessing the same potential influences outside work view them in the same way or use them accordingly?

The first part of the question revealed that the outside work environment was seen as helping learning.

This perception seemed well spaced over the whole age range of the survey. Age did not seem to be a significant factor in this respect. Neither was staff category. Community staff had a slight edge following a trend already observed, possibly the nature of the work leading to community contacts or quasi-professional work outside business hours.

When it came to specifying activities contribution to learning, however, the Hospital sector saw extra-mural activities as much more significant than the Community sector. For Community staff family influence is the source of inspiration far more so than, say, personal reflection. Generally speaking, the results bear out Mumford in that private life is important. As expected, extra-mural activities are obviously identified. It is interesting that personal reflection

accounts for a third of total replies, suggesting a degree of personal control and insight into individual learning.

III LEARNING OPPORTUNITIES

- (a) Learning opportunities were seen largely in the area of "meetings and contacts". The Health Service is a labour intensive organisation, is compartmentalised into numerous departments, large and small, relying heavily on communication and co-ordination to get work done. As expected, this is an important area for learning as being central to most routine work. Day-to-day practice in many instances involves the resolution of new and changing problem situations. This represents another fruitful area for learning if opportunities can be consciously grasped. It is surprising that the administrative staff group rated the meetings category the lowest of the 4, nursing staff at 65% was much closer to what one might expect. Administrators were highest, however, on "new problems, equipment etc.". This reflects the role of the administrator whose overall role as co-ordinator (even in comparatively junior or specialist roles) provides opportunities to move about the organisation, physically and figuratively. The Community sector provides more opportunity for meetings and contacts as learning opportunities. This again reflects the tendency of the Community sector to

offer a wide range of communication networks and both individual and group contacts. The Community again dominates in terms of new problems and equipment but not in day-to-day practice. The latter is marginally less, as one might expect. The Community is not a sector "highly dominated" by technology and machinery. It is, however, one beset with contracts and social problem/issues beyond the hospital walls.

- (b) Learning opportunities, as focussed under the same headings as the previous item, were elicited by asking respondents to give examples of those consciously taken advantage of. 'Meetings and contacts' seems less in the Community sector. The "new problems" and "day-to-day practice" show marked differences from the previous set of figures. Why should this be so? One respects the message coming through, borne out elsewhere in the survey, is that people find difficulty in identifying learning opportunities they have actually used when pressed to do so. Learning opportunity as a concept may be difficult to grasp. Recapturing a specific example may be even more difficult.
- (c) Predictably courses and seminars were rated as highly significant learning opportunities. These are obvious examples of activities where the agenda is overtly a learning one. What is most worthy of comment is that the highest rated scores for staff category, age and sector group round the "unplanned learning through

current job" category. This is a remarkable indication of part of the Mumford thesis of job learning opportunities being inherent in the day-to-day activities of the job. The strength of support for this dimension suggests the perception of importance is high, despite problems in producing examples. It may be that this is just a general feeling which views unplanned opportunities as positive without being able to say why. It may, however, reflect well on the latent possibilities of learning in the variety of health service activity and inter-personal activities.

- (d) Mumford favours the most powerful learning experience idea to pinpoint issues of how and why people learn at work. Predictably, most people were vague in response to this item and almost a quarter could not respond to it at all. Here an unexpected result was a low incidence of events associated with meetings and contacts. New problems and equipment, together with day-to-day practice, scored highly possibly because they represented areas where pragmatic examples could more easily be located. Again, it may be that grasping the concept is a barrier to explaining its application. The message coming through strongly is that staff agree they learn from daily work and that the learning may happen by chance but they are less certain what they have learned when they try to recall it. Is it that learning remains at the cognitive stage and is not consolidated into the action stage of engaging

consciously in new behaviours?

- (e) Some of the types of replies and the relative weighting of replies was as expected, especially pressure of work amounting to the highest percentage of mentions.

Perhaps the most significant result was the high figure given to "failure of self" showing a good degree of self-knowledge or self-awareness as a key variable. This was quite consistent across all categories with the two exceptions of the top and bottom of the age scales. Each, in their own way, possibly unwilling to make a self-exposure type of response.

IV MANAGEMENT OF LEARNING

- (a) The Rosemary Stewart model of demands, constraints and
- (b) choices proved difficult for people to comprehend,
- (c) possibly as a concept and certainly when it came to
- (d) applying it to their own situation.

The interest here was the extent to which respondents felt potentially able to recognise choices of action as presented to them and use them to engage in new experiences and therefore, theoretically, develop new learning. What seems to emerge is a pragmatic use of these opportunities to innovate, to do things in a different way. There is some evidence of people gaining new insight and this, to some extent, is not reflected in the perceived ability or opportunity for cognitive development. This could reflect the system

of categorising or the connection made between the two ideas by members of staff. Hospital staff rated highly on innovation and the Community on cognitive development. Again, the thread of differentiated people or opportunities in the two sectors is brought out. When comparing perception of actual and potential use of choices offered there was a marked swing away from 'keeping to the rules' in favour of developing cognitive concepts and innovating. It is quite apparent that staff realise the potential experience and learning opportunity which exists and this might suggest they are open to offers of learning if sanctioned by the organisation.

- (e) The interest here is largely concerned with any positive & correlation between qualities identified as important
- (f) or rated highly in terms of self-perception.

Those items with a close affinity were standards and effectiveness criteria; planning activities whether learning or managerial; setting objectives and identifying learning needs; and, reviewing results whether learning or managerial. What seems particularly significant is that respondents rated their competence highly in terms of awareness, listening and sharing information but less so in terms of organising their own learning. What is perhaps emerging is that the environment encourages or is conducive to learning as far as perceptual preparedness. People lack the ability to use both the environment or this state of

preparedness to utilise fully the opportunities presented.

V LEARNING STYLES

- (a) If staff are capable of learning through their work & they need to be able to recognise and use opportunities
- (b) either as these opportunities occur or to create those opportunities in a conscious way. They need a fully activated learning style represented here by a 'balanced' score of the 4 Honey and Mumford learning styles. On the basis that the difference between the highest and lowest score, on average, is 2.8 (Honey and Mumford LSQ) and 2.1 (Kolb LSI), this balance seems to be present in this sample population. As regards the LSQ, the difference is 3.4 for administrators, 2.1 for nursing staff, 3.4 for P/T1 and 3.5 for P/T2. For Hospital staff it is 3, and for the Community 2.1. If 'evenness' of balance is a criteria of effective learning, the potential for opportunitistic learning as regards learning ability is higher in the Community.
- (c) Although over half the sample of respondents considered that actual scores largely matched a subjective self-assessment, this was much more true of the Hospital than the Community sector. Why the greater awareness in one more than the other? The second part of the question asking for reasons for this expressed perception did not seem to offer a possible answer to the question.

- (d) Here the swing to the Hospital sector is more likely to use learning opportunities in accordance with self-perception and learning style becomes more apparent. Hospital staff considered themselves substantially proactive and able to use learning opportunities, proving more aware than Community staff on both counts.
- (e) The preceding analysis is borne out in this last piece of data. Community staff recognise that they need to use learning opportunities more plus change their personal learning style to improve their learning and development.

SECTION 6: CONCLUSIONS

As indicated, the purpose of the research was to ascertain, within the limitations of the survey and sample, the extent to which the Mumford hypothesis held good in a particular situation. In addition, if there were other variables of possible significance influencing managerial learning at work to identify them. Lastly, in association with the needs of the sponsor and client, to suggest and comment on possible application of the findings to in-house management development.

The Mumford hypothesis

Points derived from Mumford (see Appendix 7) are here compared with questionnaire items and results of analysis (see Appendix 2).

- 1 Learning style is an important variable affecting the
- & likelihood of learning taking place. Learning styles
- 11 consciously used and developed help managers to learn
- in the work place and apply that experience to learn
- more effectively in formal situations, e.g. off-job
- courses.

Questionnaire: Learning Styles section (a)-(e).

Accepting that an all-round learning style is important for opportunistic work based learning, as evidenced by the results, Mumford's hypothesis is borne out though possibly the lower LSQ score (for the overall average)

for the Activist style might preclude new behaviours or risk taking. The Activist is highest for the under 25 age group, suggesting age as a possible influencing variable, staff category age as a possible influencing variable, staff category seems not significant but location (community) is.

2. The role of the boss is certainly important to managers' learning. The boss provides learning opportunities and is actively involved in facilitating rather than being a passive ingredient. Key intervening variables affecting success seem to be location (hospital) and age (upper groups). Joint problem solving is nearly as important as just receiving information from the boss. The boss is a 'general aid to learning' most significantly in the role of monitor and risk-sharer and least significantly as a coach. Lack of contact with the boss is worthy of note, though, as possibly mitigating the potential influence the boss could have on learning.
3. Colleagues may not be as important as Mumford suggests or their potential for aiding learning is not sufficiently tapped. Colleagues provide feedback more than anything else and even chosen (most favoured) colleagues' role is largely perceived as information-giving rather than actively facilitating learning. The possibilities seem to be for a conscious management-led initiative to develop this situation.

4. Factors in the environment such as the work itself, although so general as to be highly conjectural, is an important variable within Mumford's suggestion that systems, objectives and climate influence learning. The nature of the work matters. Administration and some Professional and Technical work areas seem to offer the most in this respect. Variety inherent in work roles is the key feature which helps learning, again in those areas of work mentioned above. Demands and challenges are very important, i.e. day-to-day coping in complex demanding situations. The Health Service, by its nature, history and economic circumstances, offers excellent potential for a learning environment. The climate created by the employer helps to promote a learning atmosphere but perhaps it is more implicit than explicit.
5. Private life factors are important, as Mumford suggests, in promoting learning. Extra-mural activities contribute to this but also, perhaps surprisingly, personal reflection. (Reflector was the second highest learning style recorded.) This may indicate some development in the ability of people to manage their own learning if reflection is a conscious activity.
6. Mumford suggests that effective managers (learners) & adapt and respond to demands and changing events and 9 consciously use choice to be more effective. Certainly choice is actually used as an innovative basis and to

develop new insights, particularly by the younger and older age groups (25-35, 50+) and the potential for this is perceived as higher. From the model used during the research it is not clear what the components of the effective learner/manager are (but see 7 below).

7. Comparing Mumford's characteristics of the effective learner/manager with the results from the research it seems that managers rate themselves best at relating to people, listening to others and sharing information.
8. Overwhelmingly, managers feel standards should be made explicit, most feel able to recognise the difference between actual and required performance, which is Mumford's point. Many can and do recognise their learning needs from this 'performance discrepancy' model.
10. Practically all managers seem to be able to recognise and actually state their learning needs. The results show that those needs are substantially in the areas of management skills, new technology and professional skills. Whether those needs are accurate reflections of the actual or required situation is another matter.
11. Learning styles are "rounded", i.e. roughly even on the 4 dimensions, suggesting some ability to learn on the part of respondents. Learning opportunities, on the whole, at work are recognised.
12. Not everyone seeks help from their boss but many do,

which is a more optimistic finding than Mumford's hypothesis suggests. Respondents are self-directed, in that they ask others if the boss is unhelpful, though some accept the status quo and struggle on regardless. Respondents are not, however, innovative in seeking other opportunities of getting at or around the boss.

14. Results showed that 70% of replies attributed blockages to learning opportunities to other people rather than the respondent. It is not clear whether "others" necessarily means those who are responsible for managing learning opportunities.
15. Are opportunities for learning missed? Mumford suggests many are not recognised or, if recognised, are badly used. Most respondents were able to recognise these opportunities. The one category recognised but not made good use of was that of day-to-day practice. It may be that the perception of routine events is just too mundane to be perceived as capable of giving scope for learning.
16. Mumford suggested planned learning is more effective than accidental learning. The results indicate respondents' perception is that unplanned is more significant to them.
17. Mumford's hypothesis may be true but respondents' perceived 'conventional', formal training as more significant to their learning than any on-job situation,

except unplanned learning within their current job.

18. This was perhaps illustrated by the question concerning the most powerful learning experience. Not everyone was able to recall a powerful learning experience or if, in some way, intuitively aware of it, be able to express it. But the things that were mentioned covered a wide range with many subsumed under the "other" category.
19. Strong links emerged between such things as planning learning and planning tasks, identifying learning needs and setting objectives, reviewing learning and reviewing results.
20. The importance of the boss role is generally borne out by the research. The boss is least effective as a coach, most effective as an inspirer and as a model. The implication again is for managerial action to develop the boss' role as a coach and possibly also as a monitor of activity.
21. Insufficient data emerged to prove or disprove this item. Courses and seminars were rated highly. Since pressure of work is given as the most important reason preventing adequate use of learning opportunities, although not mentioned by Mumford, it would be reasonable to accept that this applied to off-job learning in addition.

Learning as an elusive concept

The problems of defining what learning is, whether as a process, as synonymous with managing, as suggesting "newness", as a perceptual phenomenon or as perceived competence, has been previously mentioned (Section 2). Mumford's definition is simplistic but pragmatic and readily understood and communicated. Understanding of learning as a concept affects how managers view potential learning opportunities, how they actively and consciously manage their learning and how they can tell learning has taken place. It is also essential for those who would continue to make organisations and situations more learning productive.

This research shows that learning is an elusive concept and it needs to be established in a particular situation what learning means and how we can recognise that learning is taking place. This will be essential to establish and develop managerial learning at work and to develop managers' abilities to learn consciously. As has been seen, a key idea is the extent to which the process of learning and the process of managing overlap or come together. The research shows that as far as learning opportunities are concerned, this seems in the Health Service to be particularly prevalent in the Community sector. This may be a situation where the view of Mumford and Burgoyne and Stuart (1978) come together.

Competence and learning at work

The need for more systematic training of managers has been highlighted in the Handy Report (The making of managers) and in the Constable/McCormick Report (The making of British managers), The Confederation of British Industry (CBI), the British Institute of Management (BIM) and the Foundation for Management Education have sponsored the establishment of a Council for Management Education and Development (CMED). Its object is to improve the performance of Britain's managers.

The Council, in association with other parties, has mounted a project to develop competence-based standards for managers. The Charter Initiative is a group of companies committed to a Code of Practice and the implementation of professional management standards and qualifications through a new Chartered Institute of Management.

These new moves will involve delivery of management education and training, as follows:

| <u>Principles</u> | <u>Processes</u> | <u>Assessment</u> |
|-------------------|--------------------|-------------------------|
| post experience | part-time | competency-based |
| career relevant | mentored & tutored | learning contracts |
| self managed | distance learning | output measures |
| group based | team activities | interpersonal skills |
| availability | modular | credit transfer |

The Management Charter Initiative has emphasised the importance of standards of competence and, as well as qualifications, experience gained in the workplace

which reflects that competence. Attention is now given to Credit Accumulation and Transfer Schemes (CATS) and Accredited Prior Experiential Learning (APEL). These will generate so-called M points towards formal qualifications. This means "the ability to reflect on the significance and interrelationship of knowledge derived from the experience of the manager (on the basis of experience and institutionally focused and similar investigation) and knowledge derived through 'scholarship'".

In the context of this piece of research, these new currents emphasise the need for managers to use learning opportunities outside the conventional arena of the lecture room, to negotiate learning contracts at work and to develop a reflective intuitive style in order to use learning opportunities consciously sought out, on a regular basis.

The research has highlighted the potential for the realisation of Mumford's principles towards this learning prospect. A recent National Health Service Training Authority report (1986) identified 12 adverse characteristics of training in the Health Service which include the lack of a recognised culture reinforcing training and learning and the fact that learning has been seen to be synonymous with training courses. Many initiatives are now in progress, albeit not uniformly widespread, e.g. the work-based learning project in the physiotherapy department of Pinderfields Hospital, Wakefield (Pickard, 1990).

Towards the learning manager?

The learning manager ought to be "an active, innovative and creative force in his environment" (Mason, 1974), working in a learning community (Boydell, 1976). The manager should work in an atmosphere where risk-taking and innovative behaviours are reinforced and encouraged to promote learning, where unplanned discovery learning can take place (Mumford, 1980) (Boydell & Pedler, 1976) and where "distress" in day-to-day experience can be turned into a learning opportunity rather than just being a painful process (Snell, 1988c) and in a situation of "openness" (Snell, 1988d, 1987c).

The organisation needs explicit policies which encourage opportunistic learning with clear standards to enable learning needs to be identified and pursued. Managers need programmes which develop the learning styles so that they can "learn how to learn", recognise learning opportunities and use them with an agreed concept of what learning means and how it is expressed.

The important role of the accountable manager needs to be recognised in providing direct learning opportunities and in actively promoting a learning environment. Similarly, the peer or colleague relationship should not be disregarded. Self-directed learning programmes based on the reality of the work place can recognise the overlap of learning and managing. Personal learning plans can bring together these variables and components which link the process of learning to effective management and organisational success.

Some practical steps

Previous writers and research studies have effectively established keynote principles:

- managerial work is complex and uneasily classified;
- learning to manage depends on how well the learning how to learn process is itself managed;
- problems of defining what learning is may be a factor preventing learning being a planned conscious process;
- there are many individually based variables such as style, preception of situation and blockages, which affect whether learning takes place or not;
- much useful learning occurs through experience actively sought out and afterwards reflected upon.

Mumford's work specifically makes the case for opportunistic learning and for self-directed learning methods. The recent studies emphasise, one way or another, the importance of an individually-inspired dynamic and entrepreneurial approach. Overall, the evidence, as in this research, suggests personal qualities and attitudes as well as the skills of managing one's own learning are essential.

An implementation programme could incorporate some or all of the following steps, stages or interventions.

1. To enable the learning manager to interact with his or her environment a 'learning how to learn' programme would be set up. This would be based upon Mumford's behaviour types

considered essential to effective learning, e.g. the ability to establish effectiveness criteria for oneself.

2. Personalised learning contracts would be negotiated and agreed so as to integrate personal and organisational objectives. An organisational and situational scan would establish learning opportunities and the means of assessment and achievement. The learning contract would reflect this search.
3. Learning opportunities would be both on and away from the job. Learning would be both progressed and facilitated by devices such as 'action learning groups'.
4. Learning would be monitored by the parties to the contract and continual review would itself facilitate added means of learning. Such devices as an 'opportunity network' could be used to encourage innovative approaches which were, in turn, stimulating, interesting and challenging.

An opportunity could be created for learning to be a conscious and normative process, openly recognised as conducive to organisational and individual success.

APPENDIX 1: SAMPLE BY STAFF CATEGORY AND BASIC DETAIL

| Identity | | Staff Cat. | Sex | Age Dist | Site |
|----------|--|---------------|-----|-------------|------|
| 1 | Principal Management | | | | |
| | Accountant | A | F | 35 | 1 H |
| - 2 | Catering Officer | A | M | 0 | 1 H |
| 3 | Unit Personnel Officer | A | F | 35 | 1 C |
| 4 | Personnel Officer | A | M | 35 | 1 H |
| 5 | Asst. Director of Nursing Services | N | F | 45 | 1 H |
| 6 | Senior Midwife Teacher | N | F | 45 | 1 H |
| 7 | Asst. Director of Nursing Services | N | F | 35 | 2 H |
| 8 | Deputy Unit Administrator | A | M | 50 | 2 C |
| 9 | Administrator Child Health Services | A | F | 50 | 1 H |
| 10 | Nursing Officer Theatres | N | M | 45 | 1 H |
| 11 | Senior Ch. MLSO | PT2 | M | 99 | 2 H |
| 12 | Sept. Physiotherapist | PT1 | F | 35 | 2 H |
| 13 | Senior Nurse Grade 7 | N | F | 50 | 1 H |
| 14 | Catering Manager | A | F | 35 | 1 H |
| 15 | Principal Asst. Administr. | A | M | 35 | 1 H |
| 16 | Domestic Services Manager | A | F | 35 | 1 H |
| 17 | Administrative Operational Mgt. | A | F | 45 | 1 H |
| 18 | Senior Nurse | N | F | 35 | 1 H |
| 19 | Senior Nurse | N | F | 45 | 1 H |
| 20 | Sept. II Physiotherapist | PT1 | F | 35 | 3 H |
| 21 | Assistant Personnel Manager | A | M | 45 | 1 H |
| 22 | Assistant Hospital Manager | A | F | 50 | 3 H |
| 23 | Senior Nurse 8 | N | F | 45 | 3 H |
| 24 | District Health Ed. Officer | N | F | 99 | 3 C |
| 25 | Nurse Specialist 7 | N | F | 45 | 3 H |
| 26 | Supt. II Radiographer | PT1 | M | 99 | 3 H |
| 27 | Principal Pharmacist | PT1 | M | 35 | 3 H |
| 28 | District Chiropodist | PT1 | M | 45 | 3 C |
| 29 | Senior Sister 7 Midwifery | N | F | 50 | 3 H |
| 30 | Social Education & Org. Manager | PT1 | M | 45 | 3 H |
| 31 | Domestic Services Manager | A | F | 25 | 2 H |
| - 32 | Clinical Nurse Specialist | N | M | 0 | 3 H |
| 33 | Clothing Manager | A | M | 99 | 3 C |
| 34 | Asst. Director of Nursing | N | M | 99 | 3 H |
| 35 | Clinical Nurse Specialist | N | F | 35 | 3 H |
| 36 | Clinical Nurse Specialist | N | F | 50 | 3 H |
| 37 | Supt. Radiographer | PT1 | M | 99 | 2 H |
| 38 | Unit Personnel Manager | A | F | 35 | 2 H |
| 39 | Manager of Residents Traing. | PT1 | M | 45 | 2 H |
| 40 | Asst. Administrator (Ops. Mgr) | A | M | 35 | 2 H |
| 41 | Assistant Administrator | A | M | 35 | 2 H |
| - 42 | Manager, Activity Centre | PT1 | F | 0 | 3 H |
| 43 | Assistant Administrator | A | F | 35 | 2 H |

| Identity | Role | Staff Cat. | Sex | Age Dist. | Site |
|----------|--|---------------|-----|--------------|------|
| 44 | Assistant Catering Manager | A | F | 35 | 2 H |
| 45 | Operational Unit Planning Manager | A | F | 45 | 2 H |
| 46 | Deputy Director of Nursing Services | N | F | 45 | 2 H |
| 47 | Clinical Nurse Specialist | N | F | 35 | 3 C |
| 48 | Clinical Nurse Specialist | N | M | 35 | 3 C |
| 49 | Works Officer | PT2 | M | 45 | 2 H |
| 50 | Nurse Manager | N | M | 45 | 1 H |
| 51 | Clinical Nurse Manager | N | F | 50 | 2 C |
| 52 | Director of Nursing Services | N | F | 50 | 2 C |
| 53 | Senior Dental Officer | PT2 | F | 50 | 1 C |
| 54 | Speech Therapist | PT2 | F | 35 | 3 C |
| 55 | Supt. Radiographer | PT1 | M | 35 | 1 H |

- A dash by a number indicated a "non-return" of main data

A is Administration includes Administrator, Personnel,
Catering, Laundry, Finance and Domestic Management
staff

N is Nursing includes Director and Assistant Director of
Nursing Services, Midwifery staff and Clinical
Nurse Specialists

PT1 is Professional and Technical includes Radiographer,
Physiotherapist, Speech Therapist, Chiropodist,
Social Education and Training, Pharmacist.

PT2 is Professional and Technical*includes Engineer, Building
Supervisor, Medical Laboratory, Senior Dental Officer.
(* non or less patient contact)

Site H is Hospital Sector C is Community Sector

APPENDIX 2 (i)

Question I_A Three Tasks Critical to Job Success

| | Entries | Routine Management | Communication With Staff | Personnel Management | Other |
|-------------------|---------|-----------------------|-----------------------------|-------------------------|----------|
| 1. Entries | (159) | 43 / 27% | 37 / 23% | 35 / 22% | 44 / 27% |
| 2. Age Group | | | | | |
| Not Specified | (3) | 0 / 0% | 1 / 33% | 1 / 33% | 1 / 33% |
| Under 25 | (3) | 1 / 33% | 0 / 0% | 1 / 33% | 1 / 33% |
| 25 - 35 | (63) | 11 / 17% | 12 / 19% | 18 / 28% | 22 / 34% |
| 35 - 45 | (45) | 16 / 35% | 10 / 22% | 8 / 17% | 11 / 24% |
| 45 - 50 | (27) | 9 / 33% | 9 / 33% | 5 / 18% | 4 / 14% |
| Above 50 | (18) | 6 / 33% | 5 / 27% | 2 / 11% | 5 / 27% |
| 3. Staff Category | | | | | |
| Admin | (57) | 12 / 21% | 14 / 24% | 11 / 19% | 20 / 35% |
| Nursing | (60) | 20 / 33% | 14 / 23% | 13 / 21% | 13 / 21% |
| OT 1 | (30) | 7 / 23% | 7 / 23% | 9 / 30% | 7 / 23% |
| OT 2 | (12) | 4 / 33% | 2 / 16% | 2 / 16% | 4 / 33% |
| 4. Location | | | | | |
| | (126) | 33 / 26% | 30 / 23% | 26 / 20% | 37 / 29% |
| | (33) | 10 / 30% | 7 / 21% | 9 / 27% | 7 / 21% |

Question I_B How Standards of Success are Recognised

| | Entries | Quantitative Times/costs | Behavioral | Subjective Personal View | Feedback From Other |
|----------------|---------|-----------------------------|------------|-----------------------------|------------------------|
| 1 Entries | (118) | 24 / 20% | 46 / 38% | 33 / 27% | 15 / 12% |
| Age Group | | | | | |
| Not Specified | (3) | 1 / 33% | 2 / 66% | 0 / 0% | 0 / 0% |
| Under 25 | (3) | 2 / 66% | 0 / 0% | 0 / 0% | 1 / 33% |
| 25 - 35 | (50) | 10 / 20% | 21 / 42% | 12 / 24% | 7 / 14% |
| 35 - 45 | (34) | 7 / 20% | 12 / 35% | 9 / 26% | 6 / 17% |
| 45 - 50 | (13) | 1 / 7% | 6 / 46% | 5 / 38% | 1 / 7% |
| Above 50 | (15) | 3 / 20% | 5 / 33% | 7 / 46% | 0 / 0% |
| Staff Category | | | | | |
| Admin | (40) | 15 / 37% | 12 / 30% | 10 / 25% | 3 / 7% |
| Nursing | (44) | 7 / 15% | 19 / 43% | 9 / 20% | 9 / 20% |
| T 1 | (22) | 1 / 4% | 11 / 50% | 8 / 36% | 2 / 9% |
| T 2 | (12) | 1 / 8% | 4 / 33% | 6 / 50% | 1 / 8% |
| Location | | | | | |
| | (89) | 22 / 24% | 33 / 37% | 22 / 24% | 12 / 13% |
| | (29) | 2 / 6% | 13 / 44% | 11 / 37% | 3 / 10% |

Question I_C How Success Measured Without Standards

| | Entries | Lack of Problems | Job/Task Achieved | Subjective Personal View | Feedback From Other |
|----------------|---------|------------------|-------------------|--------------------------|---------------------|
| 1 Entries | (23) | 2 / 8% | 11 / 47% | 6 / 26% | 4 / 17% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| 26 - 35 | (6) | 0 / 0% | 5 / 83% | 1 / 16% | 0 / 0% |
| 36 - 45 | (6) | 0 / 0% | 3 / 50% | 2 / 33% | 1 / 16% |
| 46 - 50 | (8) | 0 / 0% | 3 / 37% | 3 / 37% | 2 / 25% |
| Above 50 | (3) | 2 / 66% | 0 / 0% | 0 / 0% | 1 / 33% |
| Staff Category | | | | | |
| Admin | (9) | 0 / 0% | 6 / 66% | 2 / 22% | 1 / 11% |
| Nursing | (11) | 0 / 0% | 5 / 45% | 4 / 36% | 2 / 18% |
| T 1 | (3) | 2 / 66% | 0 / 0% | 0 / 0% | 1 / 33% |
| T 2 | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Location | | | | | |
| | (20) | 2 / 10% | 11 / 55% | 4 / 20% | 3 / 15% |
| | (3) | 0 / 0% | 0 / 0% | 2 / 66% | 1 / 33% |

Question I.D Views on who should decide performance

| | Entries | Boss | Self | Staff | Other |
|----------------|---------|-----------|-----------|----------|----------|
| All Entries | (52) | 50 / 96% | 52 / 100% | 1 / 1% | 0 / 0% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 1 / 100% | 1 / 100% | 0 / 0% | 0 / 0% |
| 25 - 35 | (21) | 21 / 100% | 21 / 100% | 0 / 0% | 0 / 0% |
| 35 - 45 | (15) | 14 / 93% | 15 / 100% | 1 / 6% | 0 / 0% |
| 45 - 50 | (9) | 8 / 88% | 9 / 100% | 0 / 0% | 0 / 0% |
| Above 50 | (6) | 6 / 100% | 6 / 100% | 0 / 0% | 0 / 0% |
| Staff Category | | | | | |
| Admin | (19) | 18 / 94% | 19 / 100% | 0 / 0% | 0 / 0% |
| Nursing | (20) | 19 / 95% | 20 / 100% | 1 / 5% | 0 / 0% |
| OT 1 | (9) | 9 / 100% | 9 / 100% | 0 / 0% | 0 / 0% |
| OT 2 | (4) | 4 / 100% | 4 / 100% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (41) | 39 / 95% | 41 / 100% | 1 / 2% | 0 / 0% |
| | (11) | 11 / 100% | 11 / 100% | 0 / 0% | 0 / 0% |

APPENDIX 2 (v)

Question I_E Do You Think it is Important to Make Standard Explicit

| | Entries | Yes | No |
|----------------|---------|----------|----------|
| Entries | (52) | 41 / 78% | 11 / 21% |
| Age Group | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 1 / 100% | 0 / 0% |
| - 35 | (21) | 15 / 71% | 6 / 28% |
| - 45 | (15) | 14 / 93% | 1 / 6% |
| - 50 | (9) | 6 / 66% | 3 / 33% |
| Over 50 | (6) | 5 / 83% | 1 / 16% |
| Staff Category | | | |
| Admin | (19) | 15 / 78% | 4 / 21% |
| Teaching | (20) | 15 / 75% | 5 / 25% |
| PT 1 | (9) | 7 / 77% | 2 / 22% |
| PT 2 | (4) | 4 / 100% | 0 / 0% |
| Location | | | |
| | (41) | 33 / 80% | 8 / 19% |
| | (11) | 8 / 72% | 3 / 27% |

APPENDIX 2 (vi)

Question I_F Actual Performance against Required

| | Entries | Completely | To a Large Extent | A Little | Not at all |
|----------------|---------|------------|----------------------|----------|---------------|
| All Entries | (155) | 43 / 27% | 98 / 63% | 12 / 7% | 2 / 1% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (3) | 0 / 0% | 3 / 100% | 0 / 0% | 0 / 0% |
| 25 - 35 | (63) | 17 / 26% | 35 / 55% | 9 / 14% | 2 / 3% |
| 35 - 45 | (45) | 13 / 28% | 31 / 68% | 1 / 2% | 0 / 0% |
| 45 - 50 | (26) | 8 / 30% | 16 / 61% | 2 / 7% | 0 / 0% |
| Above 50 | (18) | 5 / 27% | 13 / 72% | 0 / 0% | 0 / 0% |
| Staff Category | | | | | |
| Admin | (57) | 12 / 21% | 35 / 61% | 8 / 14% | 2 / 3% |
| Nursing | (60) | 21 / 35% | 35 / 58% | 4 / 6% | 0 / 0% |
| /T 1 | (27) | 7 / 25% | 20 / 74% | 0 / 0% | 0 / 0% |
| /T 2 | (11) | 3 / 27% | 8 / 72% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (123) | 31 / 25% | 78 / 63% | 12 / 9% | 2 / 1% |
| | (32) | 12 / 37% | 20 / 62% | 0 / 0% | 0 / 0% |

Question I_G Identification of Own Learning Needs From I_F

| | Entries | Completely | To a Large Extent | A Little | Not at all |
|----------------|---------|------------|----------------------|----------|---------------|
| 1 Entries | (146) | 23 / 15% | 82 / 56% | 35 / 23% | 6 / 4% |
| Age Group | | | | | |
| t Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| der 25 | (3) | 2 / 66% | 1 / 33% | 0 / 0% | 0 / 0% |
| - 35 | (63) | 10 / 15% | 29 / 46% | 20 / 31% | 4 / 6% |
| - 45 | (41) | 5 / 12% | 27 / 65% | 9 / 21% | 0 / 0% |
| - 50 | (23) | 5 / 21% | 18 / 78% | 0 / 0% | 0 / 0% |
| ove 50 | (16) | 1 / 6% | 7 / 43% | 6 / 37% | 2 / 12% |
| Staff Category | | | | | |
| min | (54) | 11 / 20% | 22 / 40% | 17 / 31% | 4 / 7% |
| rsing | (53) | 9 / 16% | 35 / 66% | 9 / 16% | 0 / 0% |
| I 1 | (27) | 2 / 7% | 14 / 51% | 9 / 33% | 2 / 7% |
| I 2 | (12) | 1 / 8% | 11 / 91% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (115) | 18 / 15% | 61 / 53% | 30 / 26% | 6 / 5% |
| | (31) | 5 / 16% | 21 / 67% | 5 / 16% | 0 / 0% |

Question I_H Do You Consciously Identify Your Learning Needs at Work

| | Entries | Not at all | A Little | A Lot | Thoroughly |
|----------------|---------|------------|----------|----------|------------|
| Entries | (52) | 1 / 1% | 20 / 38% | 29 / 55% | 2 / 3% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| - 35 | (21) | 1 / 4% | 8 / 38% | 12 / 57% | 0 / 0% |
| - 45 | (15) | 0 / 0% | 5 / 33% | 8 / 53% | 2 / 13% |
| - 50 | (9) | 0 / 0% | 2 / 22% | 7 / 77% | 0 / 0% |
| Over 50 | (6) | 0 / 0% | 4 / 66% | 2 / 33% | 0 / 0% |
| Staff Category | | | | | |
| Admin | (19) | 1 / 5% | 9 / 47% | 9 / 47% | 0 / 0% |
| Teaching | (20) | 0 / 0% | 6 / 30% | 12 / 60% | 2 / 10% |
| Level 1 | (9) | 0 / 0% | 5 / 55% | 4 / 44% | 0 / 0% |
| Level 2 | (4) | 0 / 0% | 0 / 0% | 4 / 100% | 0 / 0% |
| Location | | | | | |
| | (41) | 1 / 2% | 18 / 43% | 20 / 48% | 2 / 4% |
| | (11) | 0 / 0% | 2 / 18% | 9 / 81% | 0 / 0% |

Question 1. 6 How People Become Aware of Their Learning Needs

| | | (Sum / Average) | | | | |
|----------------|---------|-------------------|-----------|------------|------------|------------|
| | Entries | Feedback | Books | Reflection | Colleagues | Other |
| All Entries | (52) | 106/ 2.04 | 142/ 2.73 | 92/ 1.77 | 93/ 1.79 | 138 / 2.65 |
| Age Group | | | | | | |
| Not Specified | (0) | 0/ *.** | 0/ *.** | 0/ *.** | 0/ *.** | 0 / *.** |
| Under 25 | (1) | 2/ 2.00 | 5/ 5.00 | 1/ 1.00 | 3/ 3.00 | 4 / 4.00 |
| 25 - 35 | (21) | 31/ 1.48 | 58/ 2.76 | 34/ 1.62 | 38/ 1.81 | 38 / 1.81 |
| 35 - 45 | (15) | 35/ 2.33 | 36/ 2.40 | 30/ 2.00 | 27/ 1.80 | 47 / 3.13 |
| 45 - 50 | (9) | 24/ 2.67 | 27/ 3.00 | 20/ 2.22 | 14/ 1.56 | 31 / 3.44 |
| Above 50 | (6) | 14/ 2.33 | 16/ 2.67 | 7/ 1.17 | 11/ 1.83 | 18 / 3.00 |
| Staff Category | | | | | | |
| Admin | (19) | 32/ 1.68 | 62/ 3.26 | 35/ 1.84 | 36/ 1.89 | 48 / 2.53 |
| Nursing | (20) | 42/ 2.10 | 47/ 2.35 | 33/ 1.65 | 33/ 1.65 | 49 / 2.45 |
| T 1 | (9) | 20/ 2.22 | 26/ 2.89 | 14/ 1.56 | 16/ 1.78 | 34 / 3.78 |
| T 2 | (4) | 12/ 3.00 | 7/ 1.75 | 10/ 2.50 | 8/ 2.00 | 7 / 1.75 |
| Location | | | | | | |
| | (41) | 78/ 1.90 | 115/ 2.80 | 74/ 1.80 | 73/ 1.78 | 104 / 2.54 |
| | (11) | 28/ 2.55 | 27/ 2.45 | 18/ 1.64 | 20/ 1.82 | 34 / 3.09 |

Question I_J Perceived Learning Needs

| | Entries | Professional Skills | Management Skills | Personal Skills | New Technology |
|----------------|---------|---------------------|-------------------|-----------------|----------------|
| Entries | (122) | 26 / 21% | 58 / 47% | 13 / 10% | 25 / 20% |
| Age Group | | | | | |
| Specified | (2) | 0 / 0% | 1 / 50% | 0 / 0% | 1 / 50% |
| Under 25 | (3) | 0 / 0% | 1 / 33% | 0 / 0% | 2 / 66% |
| - 35 | (54) | 12 / 22% | 29 / 53% | 5 / 9% | 8 / 14% |
| - 45 | (32) | 8 / 25% | 13 / 40% | 4 / 12% | 7 / 21% |
| - 50 | (18) | 2 / 11% | 10 / 55% | 2 / 11% | 4 / 22% |
| Above 50 | (13) | 4 / 30% | 4 / 30% | 2 / 15% | 3 / 23% |
| Staff Category | | | | | |
| Admin | (35) | 9 / 25% | 14 / 40% | 3 / 8% | 9 / 25% |
| Engineering | (51) | 10 / 19% | 25 / 49% | 7 / 13% | 9 / 17% |
| PF 1 | (24) | 3 / 12% | 13 / 54% | 2 / 8% | 6 / 25% |
| PF 2 | (12) | 4 / 33% | 6 / 50% | 1 / 8% | 1 / 8% |
| Location | | | | | |
| | (98) | 22 / 22% | 44 / 44% | 10 / 10% | 22 / 22% |
| | (24) | 4 / 16% | 14 / 58% | 3 / 12% | 3 / 12% |

APPENDIX 2 (x)

Question I_J Perceived Learning Needs

| | Entries | Professional Skills | Management Skills | Personal Skills | New Technology |
|----------------|---------|---------------------|-------------------|-----------------|----------------|
| Entries | (122) | 26 / 21% | 58 / 47% | 13 / 10% | 25 / 20% |
| Age Group | | | | | |
| Specified | (2) | 0 / 0% | 1 / 50% | 0 / 0% | 1 / 50% |
| er 25 | (3) | 0 / 0% | 1 / 33% | 0 / 0% | 2 / 66% |
| - 35 | (54) | 12 / 22% | 29 / 53% | 5 / 9% | 8 / 14% |
| - 45 | (32) | 8 / 25% | 13 / 40% | 4 / 12% | 7 / 21% |
| - 50 | (18) | 2 / 11% | 10 / 55% | 2 / 11% | 4 / 22% |
| ve 50 | (13) | 4 / 30% | 4 / 30% | 2 / 15% | 3 / 23% |
| Staff Category | | | | | |
| in | (35) | 9 / 25% | 14 / 40% | 3 / 8% | 9 / 25% |
| sing | (51) | 10 / 19% | 25 / 49% | 7 / 13% | 9 / 17% |
| 1 | (24) | 3 / 12% | 13 / 54% | 2 / 8% | 6 / 25% |
| 2 | (12) | 4 / 33% | 6 / 50% | 1 / 8% | 1 / 8% |
| Location | | | | | |
| | (98) | 22 / 22% | 44 / 44% | 10 / 10% | 22 / 22% |
| | (24) | 4 / 16% | 14 / 58% | 3 / 12% | 3 / 12% |

Question II_B Did Discussions With Boss Provide Learning Opportunities

| | Entries | A Good Deal | Some | Hardly Any | Not at all |
|----------------|---------|-------------|----------|------------|------------|
| 1. Entries | (55) | 12 / 21% | 29 / 52% | 4 / 7% | 10 / 18% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| - 35 | (23) | 3 / 13% | 14 / 60% | 3 / 13% | 3 / 13% |
| - 45 | (15) | 5 / 33% | 5 / 33% | 1 / 6% | 4 / 26% |
| - 50 | (9) | 3 / 33% | 5 / 55% | 0 / 0% | 1 / 11% |
| Over 50 | (7) | 1 / 14% | 4 / 57% | 0 / 0% | 2 / 28% |
| Staff Category | | | | | |
| Admin | (21) | 3 / 14% | 14 / 66% | 2 / 9% | 2 / 9% |
| Teaching | (20) | 6 / 30% | 7 / 35% | 1 / 5% | 6 / 30% |
| T 1 | (9) | 1 / 11% | 5 / 55% | 1 / 11% | 2 / 22% |
| T 2 | (5) | 2 / 40% | 3 / 60% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (44) | 10 / 22% | 22 / 50% | 4 / 9% | 8 / 18% |
| | (11) | 2 / 18% | 7 / 63% | 0 / 0% | 2 / 18% |

Question II_C Process of Learning Actively Helped by Boss

| | Entries | A Good Deal | Some | Hardly Any | Not at all |
|----------------|---------|-------------|----------|------------|------------|
| Entries | (55) | 13 / 23% | 21 / 38% | 7 / 12% | 14 / 25% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| - 35 | (23) | 2 / 8% | 12 / 52% | 3 / 13% | 6 / 26% |
| - 45 | (15) | 5 / 33% | 5 / 33% | 2 / 13% | 3 / 20% |
| - 50 | (9) | 5 / 55% | 2 / 22% | 1 / 11% | 1 / 11% |
| Above 50 | (7) | 1 / 14% | 1 / 14% | 1 / 14% | 4 / 57% |
| Staff Category | | | | | |
| Train | (21) | 5 / 23% | 9 / 42% | 3 / 14% | 4 / 19% |
| Working | (20) | 5 / 25% | 7 / 35% | 3 / 15% | 5 / 25% |
| 1 | (9) | 1 / 11% | 3 / 33% | 0 / 0% | 5 / 55% |
| 2 | (5) | 2 / 40% | 2 / 40% | 1 / 20% | 0 / 0% |
| Location | | | | | |
| | (44) | 12 / 27% | 14 / 31% | 6 / 13% | 12 / 27% |
| | (11) | 1 / 9% | 7 / 63% | 1 / 9% | 2 / 18% |

Question II_D Incident with Boss

| | Entries | Boss Gave Information | Helped Clarify | Joint Problem Solving | Other |
|----------------|---------|--------------------------|-------------------|--------------------------|----------|
| Entries | (33) | 10 / 30% | 7 / 21% | 9 / 27% | 7 / 21% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| - 35 | (14) | 4 / 28% | 5 / 35% | 3 / 21% | 2 / 14% |
| - 45 | (10) | 3 / 30% | 1 / 10% | 3 / 30% | 3 / 30% |
| - 50 | (7) | 2 / 28% | 1 / 14% | 3 / 42% | 1 / 14% |
| ve 50 | (2) | 1 / 50% | 0 / 0% | 0 / 0% | 1 / 50% |
| Staff Category | | | | | |
| in | (13) | 5 / 38% | 2 / 15% | 4 / 30% | 2 / 15% |
| sing | (12) | 2 / 16% | 2 / 16% | 4 / 33% | 4 / 33% |
| ' 1 | (4) | 3 / 75% | 1 / 25% | 0 / 0% | 0 / 0% |
| ' 2 | (4) | 0 / 0% | 2 / 50% | 1 / 25% | 1 / 25% |
| Location | | | | | |
| | (26) | 7 / 26% | 4 / 15% | 9 / 34% | 6 / 23% |
| | (7) | 3 / 42% | 3 / 42% | 0 / 0% | 1 / 14% |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS PROVIDER | | | | | |
|----------------|-------|------------------|----------|------------|--|------------|--|
| Entries | | A Good deal | Some | Hardly any | | Not at all | |
| Entries | (51) | 9 / 17% | 26 / 50% | 11 / 21% | | 5 / 9% | |
| Age Group | | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | | 0 / ***% | |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | | 0 / 0% | |
| - 35 | (21) | 4 / 19% | 11 / 52% | 5 / 23% | | 1 / 4% | |
| - 45 | (14) | 3 / 21% | 7 / 50% | 3 / 21% | | 1 / 7% | |
| - 50 | (9) | 1 / 11% | 6 / 66% | 1 / 11% | | 1 / 11% | |
| Above 50 | (6) | 1 / 16% | 1 / 16% | 2 / 33% | | 2 / 33% | |
| Staff Category | | | | | | | |
| Admin | (19) | 2 / 10% | 11 / 57% | 5 / 26% | | 1 / 5% | |
| Teaching | (20) | 4 / 20% | 10 / 50% | 3 / 15% | | 3 / 15% | |
| 1 | (8) | 1 / 12% | 3 / 37% | 3 / 37% | | 1 / 12% | |
| 2 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | | 0 / 0% | |
| Location | | | | | | | |
| | (40) | 6 / 15% | 23 / 57% | 8 / 20% | | 3 / 7% | |
| | (11) | 3 / 27% | 3 / 27% | 3 / 27% | | 2 / 18% | |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS SOURCE OF INSPIRATION | | | |
|----------------|-------|-------------------------------|----------|------------|------------|
| Entries | | A Good deal | Some | Hardly any | Not at all |
| Entries | (51) | 12 / 23% | 27 / 52% | 11 / 21% | 1 / 1% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| - 35 | (21) | 6 / 28% | 11 / 52% | 3 / 14% | 1 / 4% |
| - 45 | (14) | 4 / 28% | 7 / 50% | 3 / 21% | 0 / 0% |
| - 50 | (9) | 2 / 22% | 5 / 55% | 2 / 22% | 0 / 0% |
| Over 50 | (6) | 0 / 0% | 3 / 50% | 3 / 50% | 0 / 0% |
| Staff Category | | | | | |
| main | (19) | 5 / 26% | 10 / 52% | 4 / 21% | 0 / 0% |
| rsing | (20) | 5 / 25% | 11 / 55% | 4 / 20% | 0 / 0% |
| F 1 | (8) | 1 / 12% | 4 / 50% | 2 / 25% | 1 / 12% |
| F 2 | (4) | 1 / 25% | 2 / 50% | 1 / 25% | 0 / 0% |
| Location | | | | | |
| | (40) | 9 / 22% | 20 / 50% | 10 / 25% | 1 / 2% |
| | (11) | 3 / 27% | 7 / 63% | 1 / 9% | 0 / 0% |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS MONITOR | | | |
|----------------|-------|-----------------|----------|------------|------------|
| Entries | | A Good deal | Some | Hardly any | Not at all |
| Entries | (51) | 9 / 17% | 18 / 35% | 17 / 33% | 7 / 13% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (21) | 4 / 19% | 8 / 38% | 6 / 28% | 3 / 14% |
| - 45 | (14) | 3 / 21% | 5 / 35% | 4 / 28% | 2 / 14% |
| - 50 | (9) | 1 / 11% | 3 / 33% | 4 / 44% | 1 / 11% |
| Above 50 | (6) | 1 / 16% | 2 / 33% | 2 / 33% | 1 / 16% |
| Staff Category | | | | | |
| Admin | (19) | 2 / 10% | 6 / 31% | 8 / 42% | 3 / 15% |
| Teaching | (20) | 4 / 20% | 7 / 35% | 8 / 40% | 1 / 5% |
| 1 | (8) | 1 / 12% | 3 / 37% | 1 / 12% | 3 / 37% |
| 2 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (40) | 7 / 17% | 15 / 37% | 11 / 27% | 7 / 17% |
| | (11) | 2 / 18% | 3 / 27% | 6 / 54% | 0 / 0% |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS FEEDBACK GIVER | | | | | | | |
|----------------|-------|------------------------|-------------|------|------------|------------|------|-----|------|
| | | Entries | A Good deal | Some | Hardly any | Not at all | | | |
| Entries | (51) | 10 / | 19% | 24 / | 47% | 12 / | 23% | 5 / | 9% |
| Age Group | | | | | | | | | |
| Specified | (0) | 0 / | ***% | 0 / | ***% | 0 / | ***% | 0 / | ***% |
| er 25 | (1) | 0 / | 0% | 0 / | 0% | 1 / | 100% | 0 / | 0% |
| - 35 | (21) | 4 / | 19% | 8 / | 38% | 6 / | 28% | 3 / | 14% |
| - 45 | (14) | 4 / | 28% | 7 / | 50% | 2 / | 14% | 1 / | 7% |
| - 50 | (9) | 1 / | 11% | 7 / | 77% | 1 / | 11% | 0 / | 0% |
| ve 50 | (6) | 1 / | 16% | 2 / | 33% | 2 / | 33% | 1 / | 16% |
| Staff Category | | | | | | | | | |
| in | (19) | 2 / | 10% | 8 / | 42% | 7 / | 36% | 2 / | 10% |
| sing | (20) | 5 / | 25% | 11 / | 55% | 3 / | 15% | 1 / | 5% |
| 1 | (8) | 2 / | 25% | 2 / | 25% | 2 / | 25% | 2 / | 25% |
| 2 | (4) | 1 / | 25% | 3 / | 75% | 0 / | 0% | 0 / | 0% |
| Location | | | | | | | | | |
| | (40) | 8 / | 20% | 16 / | 40% | 11 / | 27% | 5 / | 12% |
| | (11) | 2 / | 18% | 8 / | 72% | 1 / | 9% | 0 / | 0% |

APPENDIX 2 (xiv)(v)

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS MODEL | | | | | |
|----------------|-------|---------------|----------|------------|--|------------|--|
| Entries | | A Good deal | Some | Hardly any | | Not at all | |
| Entries | (51) | 11 / 21% | 25 / 49% | 3 / 5% | | 12 / 23% | |
| Age Group | | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | | 0 / ***% | |
| Under 25 | (1) | 0 / 0% | 0 / 0% | 0 / 0% | | 1 / 100% | |
| - 35 | (21) | 5 / 23% | 8 / 38% | 3 / 14% | | 5 / 23% | |
| - 45 | (14) | 4 / 28% | 8 / 57% | 0 / 0% | | 2 / 14% | |
| - 50 | (9) | 1 / 11% | 6 / 66% | 0 / 0% | | 2 / 22% | |
| Above 50 | (6) | 1 / 16% | 3 / 50% | 0 / 0% | | 2 / 33% | |
| Staff Category | | | | | | | |
| Main | (19) | 1 / 5% | 11 / 57% | 1 / 5% | | 6 / 31% | |
| Assisting | (20) | 6 / 30% | 9 / 45% | 0 / 0% | | 5 / 25% | |
| [1 | (8) | 2 / 25% | 3 / 37% | 2 / 25% | | 1 / 12% | |
| [2 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | | 0 / 0% | |
| Location | | | | | | | |
| | (40) | 8 / 20% | 19 / 47% | 3 / 7% | | 10 / 25% | |
| | (11) | 3 / 27% | 6 / 54% | 0 / 0% | | 2 / 18% | |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS COACH | | | | |
|----------------|-------|---------------|-------------|----------|------------|------------|
| | | Entries | A Good deal | Some | Hardly any | Not at all |
| 1 Entries | (50) | 5 / 10% | 12 / 24% | 11 / 22% | 22 / 44% | |
| Age Group | | | | | | |
| t Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% | |
| der 25 | (1) | 0 / 0% | 0 / 0% | 0 / 0% | 1 / 100% | |
| - 35 | (21) | 2 / 9% | 6 / 28% | 5 / 23% | 8 / 38% | |
| - 45 | (13) | 1 / 7% | 4 / 30% | 1 / 7% | 7 / 53% | |
| - 50 | (9) | 1 / 11% | 2 / 22% | 2 / 22% | 4 / 44% | |
| ove 50 | (6) | 1 / 16% | 0 / 0% | 3 / 50% | 2 / 33% | |
| Staff Category | | | | | | |
| min | (19) | 2 / 10% | 4 / 21% | 2 / 10% | 11 / 57% | |
| rsing | (19) | 2 / 10% | 5 / 26% | 4 / 21% | 8 / 42% | |
| T 1 | (8) | 0 / 0% | 1 / 12% | 4 / 50% | 3 / 37% | |
| T 2 | (4) | 1 / 25% | 2 / 50% | 1 / 25% | 0 / 0% | |
| Location | | | | | | |
| | (39) | 4 / 10% | 10 / 25% | 7 / 17% | 18 / 46% | |
| | (11) | 1 / 9% | 2 / 18% | 4 / 36% | 4 / 36% | |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS RISK SHARER | | | |
|----------------|-------|---------------------|----------|------------|------------|
| Entries | | A Good deal | Some | Hardly any | Not at all |
| Entries | (51) | 17 / 33% | 14 / 27% | 9 / 17% | 11 / 21% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 0 / 0% | 1 / 100% |
| - 35 | (21) | 9 / 42% | 6 / 28% | 3 / 14% | 3 / 14% |
| - 45 | (14) | 4 / 28% | 3 / 21% | 2 / 14% | 5 / 35% |
| - 50 | (9) | 3 / 33% | 3 / 33% | 3 / 33% | 0 / 0% |
| ve 50 | (6) | 1 / 16% | 2 / 33% | 1 / 16% | 2 / 33% |
| Staff Category | | | | | |
| in | (19) | 7 / 36% | 5 / 26% | 3 / 15% | 4 / 21% |
| sing | (20) | 7 / 35% | 5 / 25% | 4 / 20% | 4 / 20% |
| 1 | (8) | 1 / 12% | 2 / 25% | 2 / 25% | 3 / 37% |
| 2 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (40) | 12 / 30% | 10 / 25% | 8 / 20% | 10 / 25% |
| | (11) | 5 / 45% | 4 / 36% | 1 / 9% | 1 / 9% |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS MENTOR | | | | | |
|----------------|-------|----------------|----------|------------|--|------------|--|
| Entries | | A Good deal | Some | Hardly any | | Not at all | |
| Entries | (51) | 20 / 39% | 12 / 23% | 8 / 15% | | 11 / 21% | |
| Age Group | | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | | 0 / ***% | |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | | 0 / 0% | |
| - 35 | (21) | 9 / 42% | 4 / 19% | 2 / 9% | | 6 / 28% | |
| - 45 | (14) | 6 / 42% | 3 / 21% | 3 / 21% | | 2 / 14% | |
| - 50 | (9) | 3 / 33% | 2 / 22% | 2 / 22% | | 2 / 22% | |
| Above 50 | (6) | 2 / 33% | 2 / 33% | 1 / 16% | | 1 / 16% | |
| Staff Category | | | | | | | |
| Admin | (19) | 7 / 36% | 4 / 21% | 4 / 21% | | 4 / 21% | |
| Teaching | (20) | 9 / 45% | 4 / 20% | 1 / 5% | | 6 / 30% | |
| ' 1 | (8) | 2 / 25% | 2 / 25% | 3 / 37% | | 1 / 12% | |
| ' 2 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | | 0 / 0% | |
| Location | | | | | | | |
| | (40) | 15 / 37% | 9 / 22% | 7 / 17% | | 9 / 22% | |
| | (11) | 5 / 45% | 3 / 27% | 1 / 9% | | 2 / 18% | |

Question II_E Role of Boss in Terms of Aiding Learning of Subject

| | | BOSS AS GENERAL AID TO LEARNING | | | |
|----------------|-------|---------------------------------|----------|------------|------------|
| Entries | | A Good deal | Some | Hardly any | Not at all |
| Entries | (51) | 16 / 31% | 18 / 35% | 11 / 21% | 6 / 11% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (21) | 8 / 38% | 8 / 38% | 3 / 14% | 2 / 9% |
| - 45 | (14) | 4 / 28% | 4 / 28% | 4 / 28% | 2 / 14% |
| - 50 | (9) | 2 / 22% | 3 / 33% | 3 / 33% | 1 / 11% |
| Above 50 | (6) | 2 / 33% | 3 / 50% | 0 / 0% | 1 / 16% |
| Staff Category | | | | | |
| Admin | (19) | 5 / 26% | 8 / 42% | 4 / 21% | 2 / 10% |
| Teaching | (20) | 7 / 35% | 4 / 20% | 6 / 30% | 3 / 15% |
| ' 1 | (8) | 2 / 25% | 4 / 50% | 1 / 12% | 1 / 12% |
| ' 2 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (40) | 12 / 30% | 15 / 37% | 9 / 22% | 4 / 10% |
| | (11) | 4 / 36% | 3 / 27% | 2 / 18% | 2 / 18% |

Question II_E Comments on Reason For Judgement About Boss

| | Entries | Lack of Contact | Provides Support F/W | Joint Discussion | Other |
|----------------|---------|--------------------|-------------------------|---------------------|----------|
| Entries | (38) | 9 / 23% | 19 / 50% | 4 / 10% | 6 / 15% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (17) | 3 / 17% | 10 / 58% | 1 / 5% | 3 / 17% |
| - 45 | (9) | 2 / 22% | 4 / 44% | 2 / 22% | 1 / 11% |
| - 50 | (7) | 1 / 14% | 4 / 57% | 1 / 14% | 1 / 14% |
| ve 50 | (4) | 2 / 50% | 1 / 25% | 0 / 0% | 1 / 25% |
| Staff Category | | | | | |
| in | (14) | 6 / 42% | 6 / 42% | 1 / 7% | 1 / 7% |
| sing | (15) | 2 / 13% | 8 / 53% | 3 / 20% | 2 / 13% |
| 1 | (7) | 1 / 14% | 3 / 42% | 0 / 0% | 3 / 42% |
| 2 | (2) | 0 / 0% | 2 / 100% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (28) | 6 / 21% | 13 / 46% | 4 / 14% | 5 / 17% |
| | (10) | 3 / 30% | 6 / 60% | 0 / 0% | 1 / 10% |

Question II_F Extent to Which Help Sought From Boss

| | Entries | Nearly Always | Often | Occasionally | Rarely |
|----------------|---------|------------------|----------|--------------|----------|
| Entries | (51) | 12 / 23% | 15 / 29% | 15 / 29% | 9 / 17% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (21) | 4 / 19% | 9 / 42% | 5 / 23% | 3 / 14% |
| - 45 | (14) | 3 / 21% | 3 / 21% | 4 / 28% | 4 / 28% |
| - 50 | (9) | 2 / 22% | 3 / 33% | 3 / 33% | 1 / 11% |
| Above 50 | (6) | 2 / 33% | 0 / 0% | 3 / 50% | 1 / 16% |
| Staff Category | | | | | |
| Train | (19) | 3 / 15% | 6 / 31% | 7 / 36% | 3 / 15% |
| Working | (19) | 6 / 31% | 6 / 31% | 4 / 21% | 3 / 15% |
| 1 | (9) | 1 / 11% | 2 / 22% | 3 / 33% | 3 / 33% |
| 2 | (4) | 2 / 50% | 1 / 25% | 1 / 25% | 0 / 0% |
| Location | | | | | |
| | (40) | 8 / 20% | 13 / 32% | 12 / 30% | 7 / 17% |
| | (11) | 4 / 36% | 2 / 18% | 3 / 27% | 2 / 18% |

Question II_F What do You do if Boss is Unhelpful (Totals)

| | Ent | Strug- | Ask | Nail | Link | S/thing | Subtle | Other |
|----------------|------|--------|---------|--------|------|---------|--------|-------|
| | | gle On | Someone | Him Dn | Prob | Else | Means | |
| Entries | (48) | 14 | 24 | 21 | 8 | 2 | 0 | 5 |
| Age Group | | | | | | | | |
| Specified | (1) | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| er 25 | (1) | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| - 35 | (20) | 7 | 10 | 9 | 3 | 1 | 0 | 1 |
| - 45 | (13) | 2 | 8 | 7 | 3 | 1 | 0 | 0 |
| - 50 | (8) | 3 | 3 | 2 | 0 | 0 | 0 | 4 |
| ve 50 | (5) | 2 | 1 | 2 | 1 | 0 | 0 | 0 |
| Staff Category | | | | | | | | |
| in | (17) | 9 | 11 | 8 | 2 | 1 | 0 | 0 |
| sing | (19) | 2 | 10 | 8 | 2 | 1 | 0 | 3 |
| 1 | (8) | 1 | 2 | 5 | 3 | 0 | 0 | 1 |
| 2 | (4) | 2 | 1 | 0 | 1 | 0 | 0 | 1 |
| Location | | | | | | | | |
| | (38) | 10 | 20 | 17 | 7 | 2 | 0 | 3 |
| | (10) | 4 | 4 | 4 | 1 | 0 | 0 | 2 |

APPENDIX 2 (xv)(iii)

Question II_F What do You do if Boss is Unhelpful (Percentages)

| | Ent | Strug- | Ask | Nail | Link | S/thing | Subtle | Other |
|----------------|------|--------|---------|--------|------|---------|--------|-------|
| | | gle On | Someone | Him Dn | Prob | Else | Means | |
| Entries | (48) | 29% | 50% | 43% | 16% | 4% | 0% | 10% |
| Age Group | | | | | | | | |
| Specified | (1) | 0% | 100% | 100% | 100% | 0% | 0% | 0% |
| er 25 | (1) | 0% | 100% | 0% | 0% | 0% | 0% | 0% |
| - 35 | (20) | 35% | 50% | 45% | 15% | 5% | 0% | 5% |
| - 45 | (13) | 15% | 61% | 53% | 23% | 7% | 0% | 0% |
| - 50 | (8) | 37% | 37% | 25% | 0% | 0% | 0% | 50% |
| ve 50 | (5) | 40% | 20% | 40% | 20% | 0% | 0% | 0% |
| Staff Category | | | | | | | | |
| in | (17) | 52% | 64% | 47% | 11% | 5% | 0% | 0% |
| sing | (19) | 10% | 52% | 42% | 10% | 5% | 0% | 15% |
| 1 | (8) | 12% | 25% | 62% | 37% | 0% | 0% | 12% |
| 2 | (4) | 50% | 25% | 0% | 25% | 0% | 0% | 25% |
| Location | | | | | | | | |
| | (38) | 26% | 52% | 44% | 18% | 5% | 0% | 7% |
| | (10) | 40% | 40% | 40% | 10% | 0% | 0% | 20% |

Question II_G Importance of Roles of Various Colleagues (Sum/Average)

| | Entries | Feedback Provider | Model | Coach | Risk Sharer |
|------------------------|---------|----------------------|-----------|-----------|----------------|
| Entries | (627) | 485/ 2.58 | 506/ 3.61 | 524/ 3.61 | 502/ 3.26 |
| Age Group Specified | (0) | 0/ *.* | 0/ *.* | 0/ *.* | 0/ *.* |
| er 25 | (8) | 2/ 1.00 | 2/ 1.00 | 2/ 1.00 | 5/ 2.50 |
| - 35 | (274) | 209/ 2.61 | 242/ 3.78 | 247/ 3.86 | 213/ 3.23 |
| - 45 | (200) | 170/ 2.79 | 154/ 3.42 | 165/ 3.59 | 166/ 3.46 |
| - 50 | (94) | 62/ 2.38 | 75/ 3.95 | 79/ 3.59 | 82/ 3.04 |
| ve 50 | (51) | 42/ 2.21 | 33/ 3.30 | 31/ 2.82 | 36/ 3.27 |
| Staff Category | | | | | |
| in | (225) | 191/ 2.65 | 182/ 3.79 | 193/ 3.78 | 162/ 3.00 |
| sing | (246) | 205/ 2.70 | 194/ 3.73 | 199/ 3.69 | 219/ 3.42 |
| 1 | (128) | 70/ 2.12 | 110/ 3.33 | 111/ 3.36 | 101/ 3.48 |
| 2 | (28) | 19/ 2.71 | 20/ 2.86 | 21/ 3.00 | 20/ 2.86 |
| Location | | | | | |
| | (500) | 396/ 2.64 | 412/ 3.71 | 419/ 3.68 | 418/ 3.34 |
| | (127) | 89/ 2.34 | 94/ 3.24 | 105/ 3.39 | 84/ 2.90 |

Question II_G To What Extent do You Learn From Your Colleagues

| | Entries | Hardly at All | Sometimes | A Good Deal | Substantially |
|----------------|---------|------------------|-----------|----------------|---------------|
| Entries | (203) | 47 / 23% | 82 / 40% | 53 / 26% | 21 / 10% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (2) | 0 / 0% | 0 / 0% | 0 / 0% | 2 / 100% |
| - 35 | (84) | 22 / 26% | 32 / 38% | 23 / 27% | 7 / 8% |
| - 45 | (64) | 14 / 21% | 29 / 45% | 17 / 26% | 4 / 6% |
| - 50 | (33) | 7 / 21% | 15 / 45% | 5 / 15% | 6 / 18% |
| ve 50 | (20) | 4 / 20% | 6 / 30% | 8 / 40% | 2 / 10% |
| Staff Category | | | | | |
| in | (79) | 19 / 24% | 34 / 43% | 16 / 20% | 10 / 12% |
| sing | (84) | 17 / 20% | 30 / 35% | 27 / 32% | 10 / 11% |
| 1 | (33) | 10 / 30% | 13 / 39% | 9 / 27% | 1 / 3% |
| 2 | (7) | 1 / 14% | 5 / 71% | 1 / 14% | 0 / 0% |
| Location | | | | | |
| | (161) | 36 / 22% | 69 / 42% | 40 / 24% | 16 / 9% |
| | (42) | 11 / 26% | 13 / 30% | 13 / 30% | 5 / 11% |

Question II_H Value of a Particular Colleague in Promoting Learning

| | Entries | Specialist Information | Giving Knowledge | Facilitating Exchanging | Other |
|----------------|---------|---------------------------|---------------------|----------------------------|----------|
| Entries | (39) | 10 / 25% | 12 / 30% | 11 / 28% | 6 / 15% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (14) | 3 / 21% | 7 / 50% | 4 / 28% | 0 / 0% |
| - 45 | (11) | 2 / 18% | 2 / 18% | 4 / 36% | 3 / 27% |
| - 50 | (9) | 3 / 33% | 2 / 22% | 2 / 22% | 2 / 22% |
| Above 50 | (4) | 1 / 25% | 1 / 25% | 1 / 25% | 1 / 25% |
| Staff Category | | | | | |
| Admin | (16) | 5 / 31% | 6 / 37% | 4 / 25% | 1 / 6% |
| Teaching | (13) | 3 / 23% | 2 / 15% | 5 / 38% | 3 / 23% |
| C 1 | (6) | 1 / 16% | 3 / 50% | 2 / 33% | 0 / 0% |
| C 2 | (4) | 1 / 25% | 1 / 25% | 0 / 0% | 2 / 50% |
| Location | | | | | |
| | (29) | 7 / 24% | 10 / 34% | 8 / 27% | 4 / 13% |
| | (10) | 3 / 30% | 2 / 20% | 3 / 30% | 2 / 20% |

Question II_I Work is Conducive to Learning

| | Entries | Not at All | A Little | Quite Conducive | Very Conducive |
|----------------|---------|---------------|----------|--------------------|-------------------|
| Entries | (51) | 0 / 0% | 5 / 9% | 20 / 39% | 26 / 50% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 0 / 0% | 1 / 100% |
| - 35 | (21) | 0 / 0% | 2 / 9% | 8 / 38% | 11 / 52% |
| - 45 | (15) | 0 / 0% | 2 / 13% | 5 / 33% | 8 / 53% |
| - 50 | (8) | 0 / 0% | 0 / 0% | 6 / 75% | 2 / 25% |
| ve 50 | (6) | 0 / 0% | 1 / 16% | 1 / 16% | 4 / 66% |
| Staff Category | | | | | |
| in | (18) | 0 / 0% | 2 / 11% | 6 / 33% | 10 / 55% |
| sing | (20) | 0 / 0% | 1 / 5% | 8 / 40% | 11 / 55% |
| 1 | (9) | 0 / 0% | 2 / 22% | 3 / 33% | 4 / 44% |
| 2 | (4) | 0 / 0% | 0 / 0% | 3 / 75% | 1 / 25% |
| Location | | | | | |
| | (40) | 0 / 0% | 4 / 10% | 16 / 40% | 20 / 50% |
| | (11) | 0 / 0% | 1 / 9% | 4 / 36% | 6 / 54% |

Question II_I Department is Conducive to Learning

| | Entries | Not at All | A Little | Quite Conducive | Very Conducive |
|----------------|---------|---------------|----------|--------------------|-------------------|
| Entries | (50) | 0 / 0% | 13 / 26% | 19 / 38% | 18 / 36% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 0 / 0% | 1 / 100% |
| - 35 | (21) | 0 / 0% | 7 / 33% | 9 / 42% | 5 / 23% |
| - 45 | (14) | 0 / 0% | 4 / 28% | 4 / 28% | 6 / 42% |
| - 50 | (8) | 0 / 0% | 1 / 12% | 4 / 50% | 3 / 37% |
| ve 50 | (6) | 0 / 0% | 1 / 16% | 2 / 33% | 3 / 50% |
| Staff Category | | | | | |
| in | (18) | 0 / 0% | 4 / 22% | 9 / 50% | 5 / 27% |
| sing | (19) | 0 / 0% | 4 / 21% | 6 / 31% | 9 / 47% |
| ' 1 | (9) | 0 / 0% | 4 / 44% | 3 / 33% | 2 / 22% |
| ' 2 | (4) | 0 / 0% | 1 / 25% | 1 / 25% | 2 / 50% |
| Location | | | | | |
| | (39) | 0 / 0% | 10 / 25% | 15 / 38% | 14 / 35% |
| | (11) | 0 / 0% | 3 / 27% | 4 / 36% | 4 / 36% |

Question II_I Organisation is Conducive to Learning

| | Entries | Not at All | A Little | Quite Conducive | Very Conducive |
|---------------------|---------|------------|----------|-----------------|----------------|
| Entries | (50) | 2 / 4% | 19 / 38% | 15 / 30% | 14 / 28% |
| Age Group Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| - 35 | (21) | 1 / 4% | 11 / 52% | 5 / 23% | 4 / 19% |
| - 45 | (14) | 1 / 7% | 2 / 14% | 5 / 35% | 6 / 42% |
| - 50 | (8) | 0 / 0% | 3 / 37% | 3 / 37% | 2 / 25% |
| ve 50 | (6) | 0 / 0% | 2 / 33% | 2 / 33% | 2 / 33% |
| Staff Category | | | | | |
| in | (18) | 1 / 5% | 7 / 38% | 5 / 27% | 5 / 27% |
| sing | (19) | 1 / 5% | 5 / 26% | 6 / 31% | 7 / 36% |
| 1 | (9) | 0 / 0% | 5 / 55% | 4 / 44% | 0 / 0% |
| 2 | (4) | 0 / 0% | 2 / 50% | 0 / 0% | 2 / 50% |
| Location | | | | | |
| | (39) | 2 / 5% | 14 / 35% | 12 / 30% | 11 / 28% |
| | (11) | 0 / 0% | 5 / 45% | 3 / 27% | 3 / 27% |

Question II_I Reason for Saying Work is Conducive to Learning

| | Entries | Variety in Tasks | Developments Stimulation | Demands & Challenge | Other |
|----------------|---------|---------------------|-----------------------------|------------------------|----------|
| Entries | (49) | 22 / 44% | 7 / 14% | 12 / 24% | 8 / 16% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (19) | 9 / 47% | 4 / 21% | 4 / 21% | 2 / 10% |
| - 45 | (15) | 8 / 53% | 1 / 6% | 5 / 33% | 1 / 6% |
| - 50 | (8) | 4 / 50% | 1 / 12% | 2 / 25% | 1 / 12% |
| ve 50 | (6) | 0 / 0% | 1 / 16% | 1 / 16% | 4 / 66% |
| Staff Category | | | | | |
| in | (18) | 9 / 50% | 4 / 22% | 3 / 16% | 2 / 11% |
| sing | (18) | 8 / 44% | 0 / 0% | 7 / 38% | 3 / 16% |
| 1 | (9) | 3 / 33% | 3 / 33% | 1 / 11% | 2 / 22% |
| 2 | (4) | 2 / 50% | 0 / 0% | 1 / 25% | 1 / 25% |
| Location | | | | | |
| | (39) | 19 / 48% | 5 / 12% | 8 / 20% | 7 / 17% |
| | (10) | 3 / 30% | 2 / 20% | 4 / 40% | 1 / 10% |

APPENDIX 2 (xviii)(v)

Question II_I Reason for Saying Department is Conducive to Learning

| | Entries | Variety in Tasks | Developments Stimulation | Demands & Challenge | Other |
|----------------|---------|---------------------|-----------------------------|------------------------|----------|
| Entries | (43) | 5 / 11% | 5 / 11% | 13 / 30% | 20 / 46% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (18) | 2 / 11% | 1 / 5% | 4 / 22% | 11 / 61% |
| - 45 | (12) | 1 / 8% | 2 / 16% | 4 / 33% | 5 / 41% |
| - 50 | (6) | 1 / 16% | 0 / 0% | 3 / 50% | 2 / 33% |
| ve 50 | (6) | 1 / 16% | 2 / 33% | 1 / 16% | 2 / 33% |
| Staff Category | | | | | |
| in | (17) | 1 / 5% | 1 / 5% | 9 / 52% | 6 / 35% |
| sing | (13) | 2 / 15% | 1 / 7% | 1 / 7% | 9 / 69% |
| 1 | (9) | 1 / 11% | 3 / 33% | 2 / 22% | 3 / 33% |
| 2 | (4) | 1 / 25% | 0 / 0% | 1 / 25% | 2 / 50% |
| Location | | | | | |
| | (35) | 5 / 14% | 4 / 11% | 9 / 25% | 17 / 48% |
| | (8) | 0 / 0% | 1 / 12% | 4 / 50% | 3 / 37% |

Question II_I Reason for Saying Organisation is Conducive to Learning

| | Entries | Variety in Tasks | Developments Stimulation | Demands & Challenge | Other |
|----------------|---------|---------------------|-----------------------------|------------------------|----------|
| Entries | (41) | 2 / 4% | 7 / 17% | 12 / 29% | 20 / 48% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (17) | 0 / 0% | 2 / 11% | 3 / 17% | 12 / 70% |
| - 45 | (12) | 1 / 8% | 3 / 25% | 4 / 33% | 4 / 33% |
| - 50 | (5) | 1 / 20% | 1 / 20% | 0 / 0% | 3 / 60% |
| ve 50 | (6) | 0 / 0% | 1 / 16% | 4 / 66% | 1 / 16% |
| Staff Category | | | | | |
| in | (16) | 0 / 0% | 3 / 18% | 7 / 43% | 6 / 37% |
| sing | (12) | 1 / 8% | 1 / 8% | 3 / 25% | 7 / 58% |
| 1 | (9) | 0 / 0% | 3 / 33% | 2 / 22% | 4 / 44% |
| 2 | (4) | 1 / 25% | 0 / 0% | 0 / 0% | 3 / 75% |
| Location | | | | | |
| | (34) | 2 / 5% | 7 / 20% | 9 / 26% | 16 / 47% |
| | (7) | 0 / 0% | 0 / 0% | 3 / 42% | 4 / 57% |

Question II_J Items Which Promote Learning (Totals/Averages)

| | Ent | Clear Objectives | Rate of Change | Pace of Work | Infor- mation | Varied Tasks |
|----------------|-------|---------------------|-------------------|-----------------|------------------|-----------------|
| Entries | (51) | 107/ 2.10 | 145/ 2.84 | 159/ 3.12 | 122/ 2.39 | 99/ 1.94 |
| Age Group | | | | | | |
| Specified | (0) | 0/ **.** | 0/ **.** | 0/ **.** | 0/ **.** | 0/ **.** |
| er 25 | (1) | 1/ 1.00 | 5/ 5.00 | 2/ 2.00 | 4/ 4.00 | 3/ 3.00 |
| - 35 | (21) | 45/ 2.14 | 53/ 2.52 | 68/ 3.24 | 49/ 2.33 | 31/ 1.48 |
| - 45 | (15) | 30/ 2.00 | 31/ 2.07 | 44/ 2.93 | 31/ 2.07 | 37/ 2.47 |
| - 50 | (8) | 21/ 2.62 | 39/ 4.88 | 21/ 2.62 | 22/ 2.75 | 12/ 1.50 |
| ve 50 | (6) | 10/ 1.67 | 17/ 2.83 | 24/ 4.00 | 16/ 2.67 | 16/ 2.67 |
| Staff Category | | | | | | |
| in | (18) | 35/ 1.94 | 64/ 3.56 | 59/ 3.28 | 45/ 2.50 | 28/ 1.56 |
| sing | (20) | 44/ 2.20 | 46/ 2.30 | 53/ 2.65 | 46/ 2.30 | 44/ 2.20 |
| ' 1 | (9) | 22/ 2.44 | 23/ 2.56 | 34/ 3.78 | 21/ 2.33 | 19/ 2.11 |
| ' 2 | (4) | 6/ 1.50 | 12/ 3.00 | 13/ 3.25 | 10/ 2.50 | 8/ 2.00 |
| Location | | | | | | |
| | (40) | 81/ 2.02 | 109/ 2.73 | 120/ 3.00 | 99/ 2.48 | 77/ 1.93 |
| | (11) | 26/ 2.36 | 36/ 3.27 | 39/ 3.55 | 23/ 2.09 | 22/ 2.00 |

Question II_K Does Employer Help Learning Implicitly

| | Entries | Hardly at All | Some | A Lot |
|----------------|---------|------------------|----------|----------|
| Entries | (47) | 8 / 17% | 26 / 55% | 13 / 27% |
| Age Group | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (0) | 0 / ***% | 0 / ***% | 0 / ***% |
| - 35 | (20) | 2 / 10% | 13 / 65% | 5 / 25% |
| - 45 | (13) | 4 / 30% | 6 / 46% | 3 / 23% |
| - 50 | (8) | 1 / 12% | 5 / 62% | 2 / 25% |
| Above 50 | (6) | 1 / 16% | 2 / 33% | 3 / 50% |
| Staff Category | | | | |
| Admin | (16) | 0 / 0% | 10 / 62% | 6 / 37% |
| Teaching | (20) | 5 / 25% | 10 / 50% | 5 / 25% |
| ' 1 | (8) | 3 / 37% | 5 / 62% | 0 / 0% |
| ' 2 | (3) | 0 / 0% | 1 / 33% | 2 / 66% |
| Location | | | | |
| | (38) | 7 / 18% | 21 / 55% | 10 / 26% |
| | (9) | 1 / 11% | 5 / 55% | 3 / 33% |

Question II_K Does Employer Help Learning Explicitly

| | Entries | Hardly at All | Some | A Lot |
|------------------------|---------|------------------|----------|----------|
| Entries | (49) | 19 / 38% | 10 / 20% | 20 / 40% |
| Age Group Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (20) | 11 / 55% | 5 / 25% | 4 / 20% |
| - 45 | (14) | 5 / 35% | 0 / 0% | 9 / 64% |
| - 50 | (8) | 0 / 0% | 3 / 37% | 5 / 62% |
| ve 50 | (6) | 3 / 50% | 1 / 16% | 2 / 33% |
| Staff Category | | | | |
| in | (19) | 7 / 36% | 6 / 31% | 6 / 31% |
| sing | (19) | 6 / 31% | 3 / 15% | 10 / 52% |
| 1 | (8) | 6 / 75% | 0 / 0% | 2 / 25% |
| 2 | (3) | 0 / 0% | 1 / 33% | 2 / 66% |
| Location | | | | |
| | (39) | 17 / 43% | 7 / 17% | 15 / 38% |
| | (10) | 2 / 20% | 3 / 30% | 5 / 50% |

Question II_L Does Private Life Help Learning

| | Entries | Hardly at All | A Little | Quite A Lot | Substantially |
|----------------|---------|------------------|----------|----------------|---------------|
| Entries | (49) | 6 / 12% | 7 / 14% | 28 / 57% | 8 / 16% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (20) | 5 / 25% | 3 / 15% | 11 / 55% | 1 / 5% |
| - 45 | (14) | 0 / 0% | 2 / 14% | 10 / 71% | 2 / 14% |
| - 50 | (9) | 0 / 0% | 2 / 22% | 2 / 22% | 5 / 55% |
| ve 50 | (5) | 1 / 20% | 0 / 0% | 4 / 80% | 0 / 0% |
| Staff Category | | | | | |
| in | (18) | 3 / 16% | 4 / 22% | 8 / 44% | 3 / 16% |
| sing | (19) | 2 / 10% | 2 / 10% | 11 / 57% | 4 / 21% |
| 1 | (9) | 1 / 11% | 1 / 11% | 7 / 77% | 0 / 0% |
| 2 | (3) | 0 / 0% | 0 / 0% | 2 / 66% | 1 / 33% |
| Location | | | | | |
| | (40) | 4 / 10% | 7 / 17% | 26 / 65% | 3 / 7% |
| | (9) | 2 / 22% | 0 / 0% | 2 / 22% | 5 / 55% |

Question II_L Factors in Mind About Private Life Role in Your Learning

| | Entries | Personal Reflection | Family Influence | Extra-Mural Activities | Other |
|----------------|---------|------------------------|---------------------|---------------------------|----------|
| Entries | (49) | 17 / 34% | 15 / 30% | 24 / 48% | 7 / 14% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 1 / 100% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (21) | 7 / 33% | 6 / 28% | 10 / 47% | 4 / 19% |
| - 45 | (14) | 6 / 42% | 3 / 21% | 6 / 42% | 1 / 7% |
| - 50 | (9) | 2 / 22% | 5 / 55% | 5 / 55% | 1 / 11% |
| ve 50 | (4) | 1 / 25% | 1 / 25% | 2 / 50% | 1 / 25% |
| Staff Category | | | | | |
| in | (18) | 8 / 44% | 3 / 16% | 11 / 61% | 3 / 16% |
| sing | (19) | 6 / 31% | 8 / 42% | 8 / 42% | 2 / 10% |
| 1 | (9) | 2 / 22% | 2 / 22% | 5 / 55% | 2 / 22% |
| 2 | (3) | 1 / 33% | 2 / 66% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (39) | 15 / 38% | 9 / 23% | 22 / 56% | 5 / 12% |
| | (10) | 2 / 20% | 6 / 60% | 2 / 20% | 2 / 20% |

Question III_A Learning Opportunities at Work

| | Entries | Meetings & Contacts | New Problems Equipment etc | Day to Day Practice | Other |
|----------------|---------|------------------------|-------------------------------|------------------------|----------|
| Entries | (51) | 27 / 52% | 14 / 27% | 20 / 39% | 10 / 19% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| - 35 | (21) | 9 / 42% | 8 / 38% | 9 / 42% | 3 / 14% |
| - 45 | (15) | 8 / 53% | 2 / 13% | 5 / 33% | 4 / 26% |
| - 50 | (9) | 7 / 77% | 3 / 33% | 4 / 44% | 2 / 22% |
| ve 50 | (5) | 3 / 60% | 1 / 20% | 1 / 20% | 1 / 20% |
| Staff Category | | | | | |
| in | (19) | 7 / 36% | 7 / 36% | 7 / 36% | 4 / 21% |
| sing | (20) | 13 / 65% | 5 / 25% | 9 / 45% | 4 / 20% |
| 1 | (8) | 5 / 62% | 1 / 12% | 4 / 50% | 1 / 12% |
| 2 | (4) | 2 / 50% | 1 / 25% | 0 / 0% | 1 / 25% |
| Location | | | | | |
| | (40) | 20 / 50% | 10 / 25% | 16 / 40% | 7 / 17% |
| | (11) | 7 / 63% | 4 / 36% | 4 / 36% | 3 / 27% |

Question III_B Example of Learning Opportunity Consciously Used

| | Entries | Meetings & Contacts | New Problems Equipment etc | Day to Day Practice | Other |
|----------------|---------|------------------------|-------------------------------|------------------------|----------|
| Entries | (50) | 27 / 54% | 12 / 24% | 2 / 4% | 9 / 18% |
| Age Group | | | | | |
| Not Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (21) | 11 / 52% | 6 / 28% | 1 / 4% | 3 / 14% |
| - 45 | (14) | 8 / 57% | 2 / 14% | 1 / 7% | 3 / 21% |
| - 50 | (9) | 4 / 44% | 4 / 44% | 0 / 0% | 1 / 11% |
| Above 50 | (5) | 3 / 60% | 0 / 0% | 0 / 0% | 2 / 40% |
| Staff Category | | | | | |
| Admin | (19) | 10 / 52% | 4 / 21% | 1 / 5% | 4 / 21% |
| Nursing | (19) | 11 / 57% | 5 / 26% | 1 / 5% | 2 / 10% |
| T 1 | (8) | 3 / 37% | 2 / 25% | 0 / 0% | 3 / 37% |
| T 2 | (4) | 3 / 75% | 1 / 25% | 0 / 0% | 0 / 0% |
| Location | | | | | |
| | (39) | 23 / 58% | 7 / 17% | 2 / 5% | 7 / 17% |
| | (11) | 4 / 36% | 5 / 45% | 0 / 0% | 2 / 18% |

Question III_C Assesment of Learning Opportunities (Totals)

| | Entries | Unp & Job | Planned & Job | Adding Responsb | Special Assignmts | Outside Work | Boss or Colleauge | Courses Seminars | Reading | Other |
|------------|---------|--------------|------------------|--------------------|----------------------|-----------------|----------------------|---------------------|---------|-------|
| ries | (47) | 84 | 131 | 123 | 121 | 155 | 152 | 100 | 112 | 116 |
| Group | | | | | | | | | | |
| ified | (0) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | (1) | 1 | 5 | 2 | 2 | 0 | 0 | 3 | 5 | 0 |
| | (20) | 28 | 57 | 50 | 55 | 67 | 60 | 46 | 48 | 53 |
| | (13) | 32 | 39 | 40 | 33 | 44 | 44 | 28 | 30 | 34 |
| | (7) | 15 | 15 | 17 | 19 | 22 | 31 | 16 | 20 | 14 |
| 0 | (6) | 8 | 15 | 14 | 12 | 22 | 17 | 7 | 9 | 15 |
| f Category | | | | | | | | | | |
| | (18) | 29 | 64 | 53 | 53 | 58 | 60 | 48 | 46 | 41 |
| | (16) | 27 | 34 | 37 | 37 | 52 | 50 | 30 | 39 | 41 |
| | (9) | 20 | 25 | 27 | 23 | 36 | 33 | 15 | 22 | 27 |
| | (4) | 8 | 8 | 6 | 8 | 9 | 9 | 7 | 5 | 7 |
| tion | | | | | | | | | | |
| | (36) | 65 | 105 | 104 | 100 | 125 | 115 | 78 | 91 | 90 |
| | (11) | 19 | 26 | 19 | 21 | 30 | 37 | 22 | 21 | 26 |

Question III_C Assessment of Learning Opportunities (Averages)

| | Entries | Unp & Job | Planned & Job | Adding Responsb | Special Assignmts | Outside Work | Boss or Colleauge | Courses Seminars | Reading | Other |
|-------------|---------|--------------|------------------|--------------------|----------------------|-----------------|----------------------|---------------------|---------|-------|
| tries | (47) | 1.79 | 2.85 | 2.73 | 2.47 | 3.44 | 3.30 | 2.13 | 2.55 | 3.05 |
| Group | | | | | | | | | | |
| ecified | (0) | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** |
| 25 | (1) | 1.00 | 5.00 | 2.00 | 2.00 | *,** | *,** | 3.00 | 5.00 | *,** |
| 5 | (20) | 1.40 | 2.85 | 2.50 | 2.75 | 3.35 | 3.00 | 2.30 | 2.53 | 3.12 |
| 5 | (13) | 2.46 | 3.00 | 3.08 | 2.36 | 3.38 | 3.14 | 2.15 | 2.50 | 3.09 |
| 0 | (7) | 2.14 | 2.50 | 2.83 | 2.38 | 3.14 | 4.43 | 2.00 | 2.86 | 2.80 |
| 50 | (6) | 1.33 | 2.50 | 2.80 | 2.00 | 4.40 | 3.40 | 1.40 | 1.80 | 3.00 |
| ff Category | | | | | | | | | | |
| | (18) | 1.61 | 3.37 | 2.79 | 2.79 | 3.41 | 3.33 | 2.53 | 2.71 | 2.93 |
| g | (16) | 1.69 | 2.43 | 2.85 | 2.18 | 3.47 | 3.33 | 2.00 | 2.60 | 3.15 |
| | (9) | 2.22 | 2.78 | 3.00 | 2.56 | 4.00 | 3.67 | 1.67 | 2.44 | 3.38 |
| | (4) | 2.00 | 2.00 | 1.50 | 2.00 | 2.25 | 2.25 | 1.75 | 1.67 | 2.33 |
| ation | | | | | | | | | | |
| | (36) | 1.81 | 2.92 | 2.89 | 2.63 | 3.57 | 3.29 | 2.17 | 2.68 | 3.10 |
| | (11) | 1.73 | 2.60 | 2.11 | 1.91 | 3.00 | 3.36 | 2.00 | 2.10 | 2.89 |

Question III_D Most Powerful Learning Experience

| | Entries | Meetings & Contacts | New Problems Equipment etc | Day to Day Practice | Other |
|----------------|---------|------------------------|-------------------------------|------------------------|----------|
| Entries | (41) | 5 / 12% | 13 / 31% | 10 / 24% | 13 / 31% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| 1-25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% |
| 26-35 | (15) | 1 / 6% | 6 / 40% | 6 / 40% | 2 / 13% |
| 36-45 | (13) | 2 / 15% | 4 / 30% | 2 / 15% | 5 / 38% |
| 46-50 | (8) | 1 / 12% | 3 / 37% | 0 / 0% | 4 / 50% |
| 51-50 | (4) | 1 / 25% | 0 / 0% | 1 / 25% | 2 / 50% |
| Staff Category | | | | | |
| 1-Non | (17) | 2 / 11% | 8 / 47% | 6 / 35% | 1 / 5% |
| 2-Working | (14) | 1 / 7% | 3 / 21% | 2 / 14% | 8 / 57% |
| 3-1 | (8) | 2 / 25% | 1 / 12% | 2 / 25% | 3 / 37% |
| 4-2 | (2) | 0 / 0% | 1 / 50% | 0 / 0% | 1 / 50% |
| Location | | | | | |
| 1 | (33) | 5 / 15% | 11 / 33% | 9 / 27% | 8 / 24% |
| 2 | (8) | 0 / 0% | 2 / 25% | 1 / 12% | 5 / 62% |

Question III_E What Prevents Learning Opportunities Being Used (Percentages)

| | Ent | Attitude of Others | Pressure of Work | Commun- ication | Failure of Others | Failure of Self | Other |
|----------------|-------|-----------------------|---------------------|--------------------|----------------------|--------------------|-------|
| Entries | (52) | 28% | 67% | 32% | 42% | 34% | 7% |
| Age Group | | | | | | | |
| Specified | (0) | ***% | ***% | ***% | ***% | ***% | ***% |
| er 25 | (1) | 0% | 100% | 0% | 0% | 0% | 0% |
| - 35 | (21) | 42% | 57% | 28% | 42% | 38% | 14% |
| - 45 | (15) | 20% | 80% | 33% | 40% | 40% | 6% |
| - 50 | (9) | 22% | 66% | 33% | 44% | 33% | 0% |
| ve 50 | (6) | 16% | 66% | 50% | 50% | 16% | 0% |
| Staff Category | | | | | | | |
| in | (19) | 21% | 73% | 26% | 47% | 36% | 5% |
| sing | (20) | 25% | 70% | 40% | 40% | 35% | 15% |
| 1 | (9) | 33% | 66% | 44% | 33% | 44% | 0% |
| 2 | (4) | 75% | 25% | 0% | 50% | 0% | 0% |
| Location | | | | | | | |
| | (41) | 24% | 70% | 29% | 39% | 36% | 9% |
| | (11) | 45% | 54% | 45% | 54% | 27% | 0% |

APPENDIX 2 (xviii)

Question III_E What Prevents Learning Opportunities Being Used (Totals)

| | Ent | Attitude of Others | Pressure of Work | Communi- cation | Failure of Others | Failure of Self | Other |
|----------------|------|-----------------------|---------------------|--------------------|----------------------|--------------------|-------|
| Entries | (52) | 15 | 35 | 17 | 22 | 18 | 4 |
| Age Group | | | | | | | |
| Specified | (0) | 0 | 0 | 0 | 0 | 0 | 0 |
| or 25 | (1) | 0 | 1 | 0 | 0 | 0 | 0 |
| 35 | (21) | 9 | 12 | 6 | 9 | 8 | 3 |
| 45 | (15) | 3 | 12 | 5 | 6 | 6 | 1 |
| 50 | (9) | 2 | 6 | 3 | 4 | 3 | 0 |
| ve 50 | (6) | 1 | 4 | 3 | 3 | 1 | 0 |
| Staff Category | | | | | | | |
| n | (19) | 4 | 14 | 5 | 9 | 7 | 1 |
| sing | (20) | 5 | 14 | 8 | 8 | 7 | 3 |
| 1 | (9) | 3 | 6 | 4 | 3 | 4 | 0 |
| 2 | (4) | 3 | 1 | 0 | 2 | 0 | 0 |
| Location | | | | | | | |
| | (41) | 10 | 29 | 12 | 16 | 15 | 4 |
| | (11) | 5 | 6 | 5 | 6 | 3 | 0 |

APPENDIX 2 (xix)

Question IV_A Demands Placed on Interviewee For Example Task by BOSS

| | Entries | Job Done on time | Standards Kept up | Personal Needs | Service Improved | Other |
|----------------|---------|---------------------|----------------------|-------------------|---------------------|---------|
| Entries | (40) | 12 / 30% | 14 / 35% | 0 / 0% | 5 / 12% | 9 / 22% |
| Age Group | | | | | | |
| Specified | (0) | 0 /***% | 0 /***% | 0 /***% | 0 /***% | 0 /***% |
| er 25 | (1) | 1 /100% | 0 / 0% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (16) | 3 / 18% | 8 / 50% | 0 / 0% | 2 / 12% | 3 / 18% |
| - 45 | (11) | 5 / 45% | 3 / 27% | 0 / 0% | 1 / 9% | 2 / 18% |
| - 50 | (6) | 1 / 16% | 2 / 33% | 0 / 0% | 1 / 16% | 2 / 33% |
| ve 50 | (6) | 2 / 33% | 1 / 16% | 0 / 0% | 1 / 16% | 2 / 33% |
| Staff Category | | | | | | |
| in | (16) | 6 / 37% | 4 / 25% | 0 / 0% | 2 / 12% | 4 / 25% |
| sing | (13) | 4 / 30% | 4 / 30% | 0 / 0% | 2 / 15% | 3 / 23% |
| 1 | (7) | 1 / 14% | 4 / 57% | 0 / 0% | 1 / 14% | 1 / 14% |
| 2 | (4) | 1 / 25% | 2 / 50% | 0 / 0% | 0 / 0% | 1 / 25% |
| Location | | | | | | |
| | (30) | 11 / 36% | 12 / 40% | 0 / 0% | 4 / 13% | 3 / 10% |
| | (10) | 1 / 10% | 2 / 20% | 0 / 0% | 1 / 10% | 6 / 60% |

Question IV_A Demands Placed on Interviewee For Example Task by COLLEAGUE

| | Entries | Job Done on time | Standards Kept up | Personnal Needs | Service Improved | Other |
|----------------|---------|---------------------|----------------------|--------------------|---------------------|---------|
| Entries | (34) | 1 / 2% | 11 / 32% | 17 / 50% | 0 / 0% | 5 / 14% |
| Age Group | | | | | | |
| Specified | (0) | 0 /***% | 0 /***% | 0 /***% | 0 /***% | 0 /***% |
| er 25 | (1) | 0 / 0% | 0 / 0% | 1 /100% | 0 / 0% | 0 / 0% |
| - 35 | (14) | 0 / 0% | 7 / 50% | 5 / 35% | 0 / 0% | 2 / 14% |
| - 45 | (8) | 0 / 0% | 0 / 0% | 6 / 75% | 0 / 0% | 2 / 25% |
| - 50 | (6) | 0 / 0% | 1 / 16% | 4 / 66% | 0 / 0% | 1 / 16% |
| ve 50 | (5) | 1 / 20% | 3 / 60% | 1 / 20% | 0 / 0% | 0 / 0% |
| Staff Category | | | | | | |
| in | (13) | 0 / 0% | 5 / 38% | 7 / 53% | 0 / 0% | 1 / 7% |
| sing | (11) | 1 / 9% | 2 / 18% | 5 / 45% | 0 / 0% | 3 / 27% |
| 1 | (6) | 0 / 0% | 2 / 33% | 3 / 50% | 0 / 0% | 1 / 16% |
| 2 | (4) | 0 / 0% | 2 / 50% | 2 / 50% | 0 / 0% | 0 / 0% |
| Location | | | | | | |
| | (26) | 1 / 3% | 7 / 26% | 15 / 57% | 0 / 0% | 3 / 11% |
| | (8) | 0 / 0% | 4 / 50% | 2 / 25% | 0 / 0% | 2 / 25% |

Station IV_A Demands Placed on Interviewee For Example Task by SUBORDINATE

| | Entries | Job Done on time | Standards Kept up | Personnal Needs | Service Improved | Other |
|----------------|---------|---------------------|----------------------|--------------------|---------------------|----------|
| Entries | (37) | 3 / 8% | 3 / 8% | 25 / 67% | 1 / 2% | 5 / 13% |
| Age Group | | | | | | |
| Specified | (0) | 0 /***% | 0 /***% | 0 /***% | 0 /****% | 0 /****% |
| 25 | (1) | 1 /100% | 0 / 0% | 0 / 0% | 0 / 0% | 0 / 0% |
| 35 | (15) | 1 / 6% | 0 / 0% | 13 / 86% | 1 / 6% | 0 / 0% |
| 45 | (11) | 1 / 9% | 1 / 9% | 5 / 45% | 0 / 0% | 4 / 36% |
| 50 | (6) | 0 / 0% | 2 / 33% | 3 / 50% | 0 / 0% | 1 / 16% |
| 50 | (4) | 0 / 0% | 0 / 0% | 4 /100% | 0 / 0% | 0 / 0% |
| Staff Category | | | | | | |
| 1 | (12) | 2 / 16% | 1 / 8% | 7 / 58% | 0 / 0% | 2 / 16% |
| ing | (12) | 1 / 8% | 2 / 16% | 9 / 75% | 0 / 0% | 0 / 0% |
| 1 | (9) | 0 / 0% | 0 / 0% | 6 / 66% | 1 / 11% | 2 / 22% |
| 2 | (4) | 0 / 0% | 0 / 0% | 3 / 75% | 0 / 0% | 1 / 25% |
| Location | | | | | | |
| | (29) | 3 / 10% | 2 / 6% | 19 / 65% | 1 / 3% | 4 / 13% |
| | (8) | 0 / 0% | 1 / 12% | 6 / 75% | 0 / 0% | 1 / 12% |

Question IV_A Demands Placed on Interviewee For Example Task by CLIENTS

| | Entries | Job Done on time | Standards Kept up | Personnal Needs | Service Improved | Other |
|------------------------|---------|---------------------|----------------------|--------------------|---------------------|---------|
| Entries | (36) | 4 / 11% | 12 / 33% | 11 / 30% | 6 / 16% | 3 / 8% |
| Age Group Specified | (0) | 0 /***% | 0 /***% | 0 /***% | 0 /***% | 0 /***% |
| er 25 | (1) | 1 /100% | 0 / 0% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (16) | 0 / 0% | 7 / 43% | 7 / 43% | 2 / 12% | 0 / 0% |
| - 45 | (9) | 1 / 11% | 2 / 22% | 2 / 22% | 2 / 22% | 2 / 22% |
| - 50 | (6) | 1 / 16% | 2 / 33% | 1 / 16% | 1 / 16% | 1 / 16% |
| ve 50 | (4) | 1 / 25% | 1 / 25% | 1 / 25% | 1 / 25% | 0 / 0% |
| Staff Category | | | | | | |
| in | (13) | 2 / 15% | 4 / 30% | 4 / 30% | 3 / 23% | 0 / 0% |
| sing | (10) | 0 / 0% | 3 / 30% | 6 / 60% | 1 / 10% | 0 / 0% |
| 1 | (9) | 1 / 11% | 4 / 44% | 1 / 11% | 2 / 22% | 1 / 11% |
| 2 | (4) | 1 / 25% | 1 / 25% | 0 / 0% | 0 / 0% | 2 / 50% |
| Location | | | | | | |
| | (28) | 3 / 10% | 9 / 32% | 9 / 32% | 6 / 21% | 1 / 3% |
| | (8) | 1 / 12% | 3 / 37% | 2 / 25% | 0 / 0% | 2 / 25% |

Question IV_A Constraints Placed on Interviewee For Example Task by BOSS

| | Entries | Job Content | Resources | Policies Procedure | Skills / Attitudes | Other |
|-----------------|---------|----------------|-----------|-----------------------|-----------------------|----------|
| Entries | (37) | 5 / 13% | 20 / 54% | 2 / 5% | 7 / 18% | 3 / 8% |
| Age Group | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| Under 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| 25-35 | (17) | 2 / 11% | 11 / 64% | 2 / 11% | 2 / 11% | 0 / 0% |
| 35-45 | (9) | 3 / 33% | 4 / 44% | 0 / 0% | 1 / 11% | 1 / 11% |
| 45-50 | (6) | 0 / 0% | 2 / 33% | 0 / 0% | 3 / 50% | 1 / 16% |
| Over 50 | (4) | 0 / 0% | 2 / 50% | 0 / 0% | 1 / 25% | 1 / 25% |
| Staff Category | | | | | | |
| Non-supervisory | (16) | 1 / 6% | 9 / 56% | 2 / 12% | 3 / 18% | 1 / 6% |
| Supervisory | (8) | 2 / 25% | 4 / 50% | 0 / 0% | 1 / 12% | 1 / 12% |
| 1 | (9) | 1 / 11% | 7 / 77% | 0 / 0% | 1 / 11% | 0 / 0% |
| 2 | (4) | 1 / 25% | 0 / 0% | 0 / 0% | 2 / 50% | 1 / 25% |
| Location | | | | | | |
| At home | (30) | 5 / 16% | 19 / 63% | 1 / 3% | 4 / 13% | 1 / 3% |
| At work | (7) | 0 / 0% | 1 / 14% | 1 / 14% | 3 / 42% | 2 / 28% |

Question IV_A Constraints Placed on Interviewee For Example Task by COLLEAGUE

| | Entries | Job Content | Resources | Policies Procedure | Skills / Attitudes | Other |
|----------------|---------|----------------|-----------|-----------------------|-----------------------|----------|
| Entries | (33) | 8 / 24% | 10 / 30% | 3 / 9% | 11 / 33% | 1 / 3% |
| Age Group | | | | | | |
| Specified | (0) | 0 /****% | 0 /****% | 0 /****% | 0 /****% | 0 /****% |
| er 25 | (1) | 0 / 0% | 1 /100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (15) | 4 / 26% | 2 / 13% | 2 / 13% | 6 / 40% | 1 / 6% |
| - 45 | (8) | 2 / 25% | 3 / 37% | 1 / 12% | 2 / 25% | 0 / 0% |
| - 50 | (5) | 1 / 20% | 2 / 40% | 0 / 0% | 2 / 40% | 0 / 0% |
| ve 50 | (4) | 1 / 25% | 2 / 50% | 0 / 0% | 1 / 25% | 0 / 0% |
| Staff Category | | | | | | |
| in | (14) | 2 / 14% | 5 / 35% | 1 / 7% | 6 / 42% | 0 / 0% |
| sing | (9) | 4 / 44% | 2 / 22% | 0 / 0% | 3 / 33% | 0 / 0% |
| 1 | (7) | 2 / 28% | 1 / 14% | 2 / 28% | 1 / 14% | 1 / 14% |
| 2 | (3) | 0 / 0% | 2 / 66% | 0 / 0% | 1 / 33% | 0 / 0% |
| Location | | | | | | |
| | (28) | 7 / 25% | 9 / 32% | 3 / 10% | 8 / 28% | 1 / 3% |
| | (5) | 1 / 20% | 1 / 20% | 0 / 0% | 3 / 60% | 0 / 0% |

station IV_A Constraints Placed on Interviewee For Example Task by SUBORDINATE

| | Entries | Job Content | Resources | Policies Procedure | Skills / Attitudes | Other |
|----------------|---------|----------------|-----------|-----------------------|-----------------------|----------|
| Entries | (36) | 7 / 19% | 11 / 30% | 0 / 0% | 13 / 36% | 5 / 13% |
| Age Group | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (15) | 3 / 20% | 5 / 33% | 0 / 0% | 6 / 40% | 1 / 6% |
| - 45 | (10) | 3 / 30% | 1 / 10% | 0 / 0% | 5 / 50% | 1 / 10% |
| - 50 | (6) | 0 / 0% | 3 / 50% | 0 / 0% | 1 / 16% | 2 / 33% |
| ve 50 | (4) | 1 / 25% | 1 / 25% | 0 / 0% | 1 / 25% | 1 / 25% |
| Staff Category | | | | | | |
| in | (15) | 1 / 6% | 6 / 40% | 0 / 0% | 6 / 40% | 2 / 13% |
| sing | (8) | 1 / 12% | 2 / 25% | 0 / 0% | 2 / 25% | 3 / 37% |
| ' 1 | (9) | 3 / 33% | 2 / 22% | 0 / 0% | 4 / 44% | 0 / 0% |
| ' 2 | (4) | 2 / 50% | 1 / 25% | 0 / 0% | 1 / 25% | 0 / 0% |
| Location | | | | | | |
| | (29) | 6 / 20% | 9 / 31% | 0 / 0% | 11 / 37% | 3 / 10% |
| | (7) | 1 / 14% | 2 / 28% | 0 / 0% | 2 / 28% | 2 / 28% |

Question IV_A Constraints Placed on Interviewee For Example Task by CLIENTS

| | Entries | Job Content | Resources | Policies Procedure | Skills / Attitudes | Other |
|----------------|---------|----------------|-----------|-----------------------|-----------------------|---------|
| Entries | (34) | 9 / 26% | 11 / 32% | 4 / 11% | 7 / 20% | 3 / 8% |
| Age Group | | | | | | |
| Specified | (0) | 0 /***% | 0 /***% | 0 /***% | 0 /***% | 0 /***% |
| 18-25 | (1) | 0 / 0% | 1 /100% | 0 / 0% | 0 / 0% | 0 / 0% |
| 26-35 | (14) | 3 / 21% | 5 / 35% | 4 / 28% | 1 / 7% | 1 / 7% |
| 36-45 | (9) | 3 / 33% | 2 / 22% | 0 / 0% | 3 / 33% | 1 / 11% |
| 46-50 | (6) | 2 / 33% | 2 / 33% | 0 / 0% | 2 / 33% | 0 / 0% |
| 51+50 | (4) | 1 / 25% | 1 / 25% | 0 / 0% | 1 / 25% | 1 / 25% |
| Staff Category | | | | | | |
| 1 | (15) | 4 / 26% | 5 / 33% | 2 / 13% | 3 / 20% | 1 / 6% |
| 2 | (7) | 2 / 28% | 3 / 42% | 0 / 0% | 2 / 28% | 0 / 0% |
| 3 | (8) | 1 / 12% | 1 / 12% | 2 / 25% | 2 / 25% | 2 / 25% |
| 4 | (4) | 2 / 50% | 2 / 50% | 0 / 0% | 0 / 0% | 0 / 0% |
| Location | | | | | | |
| 1 | (27) | 7 / 25% | 8 / 29% | 4 / 14% | 5 / 18% | 3 / 11% |
| 2 | (7) | 2 / 28% | 3 / 42% | 0 / 0% | 2 / 28% | 0 / 0% |

Question IV_C How do You Actually Use Choice to Develop Learning

| | Entries | Innovative Factors | Develop Cognitive | Keeping to Rules | New Insights | Other |
|----------------|---------|--------------------|-------------------|------------------|--------------|----------|
| Entries | (36) | 13 / 36% | 3 / 8% | 3 / 8% | 9 / 25% | 8 / 22% |
| Age Group | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| or 25 | (1) | 0 / 0% | 0 / 0% | 0 / 0% | 0 / 0% | 1 / 100% |
| - 35 | (14) | 6 / 42% | 1 / 7% | 0 / 0% | 3 / 21% | 4 / 28% |
| - 45 | (12) | 4 / 33% | 0 / 0% | 2 / 16% | 3 / 25% | 3 / 25% |
| - 50 | (6) | 1 / 16% | 2 / 33% | 1 / 16% | 2 / 33% | 0 / 0% |
| ve 50 | (3) | 2 / 66% | 0 / 0% | 0 / 0% | 1 / 33% | 0 / 0% |
| Staff Category | | | | | | |
| un | (17) | 6 / 35% | 0 / 0% | 1 / 5% | 5 / 29% | 5 / 29% |
| sing | (8) | 2 / 25% | 1 / 12% | 1 / 12% | 2 / 25% | 2 / 25% |
| 1 | (7) | 4 / 57% | 0 / 0% | 0 / 0% | 2 / 28% | 1 / 14% |
| 2 | (4) | 1 / 25% | 2 / 50% | 1 / 25% | 0 / 0% | 0 / 0% |
| Location | | | | | | |
| | (28) | 12 / 42% | 0 / 0% | 2 / 7% | 7 / 25% | 7 / 25% |
| | (8) | 1 / 12% | 3 / 37% | 1 / 12% | 2 / 25% | 1 / 12% |

Question IV_C How Could You Potentially Use Choice to Develop Learning

| | Entries | Innovative Factors | Develop Cognitive | Keeping to Rules | New Insights | Other |
|---------------------|---------|--------------------|-------------------|------------------|--------------|----------|
| Entries | (33) | 17 / 51% | 7 / 21% | 0 / 0% | 8 / 24% | 1 / 3% |
| Age Group Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (13) | 4 / 30% | 5 / 38% | 0 / 0% | 3 / 23% | 1 / 7% |
| - 45 | (11) | 9 / 81% | 0 / 0% | 0 / 0% | 2 / 18% | 0 / 0% |
| - 50 | (5) | 3 / 60% | 0 / 0% | 0 / 0% | 2 / 40% | 0 / 0% |
| ve 50 | (3) | 1 / 33% | 1 / 33% | 0 / 0% | 1 / 33% | 0 / 0% |
| Staff Category | | | | | | |
| in | (16) | 8 / 50% | 4 / 25% | 0 / 0% | 3 / 18% | 1 / 6% |
| sing | (6) | 5 / 83% | 0 / 0% | 0 / 0% | 1 / 16% | 0 / 0% |
| 1 | (7) | 2 / 28% | 2 / 28% | 0 / 0% | 3 / 42% | 0 / 0% |
| 2 | (4) | 2 / 50% | 1 / 25% | 0 / 0% | 1 / 25% | 0 / 0% |
| Location | | | | | | |
| | (25) | 13 / 52% | 5 / 20% | 0 / 0% | 6 / 24% | 1 / 4% |
| | (8) | 4 / 50% | 2 / 25% | 0 / 0% | 2 / 25% | 0 / 0% |

APPENDIX 2 (xxix)

Question IV_E Self Rating as Effective Manager (Totals)

| | Ent | Collect | Setting | Defining | Planning | Translting | Monitor- | Reveiwing | Deciding | Communic- | Resources | People |
|----------|------|-----------|-----------|----------|----------|------------|----------|-----------|----------|-----------|-----------|--------|
| | Data | Objective | Standards | Tasks | Plans | ing | Results | | | ation | | |
| es | (49) | 103 | 121 | 123 | 101 | 103 | 129 | 134 | 108 | 75 | 79 | 78 |
| oup | | | | | | | | | | | | |
| fied | (0) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | (1) | 2 | 1 | 2 | 1 | 1 | 2 | 4 | 2 | 2 | 2 | 0 |
| | (20) | 45 | 39 | 51 | 46 | 41 | 52 | 52 | 42 | 32 | 29 | 32 |
| | (15) | 37 | 35 | 33 | 28 | 30 | 34 | 37 | 27 | 23 | 23 | 27 |
| | (8) | 12 | 27 | 19 | 15 | 16 | 25 | 28 | 20 | 14 | 14 | 12 |
| | (5) | 7 | 19 | 18 | 11 | 15 | 16 | 13 | 17 | 4 | 11 | 7 |
| Category | | | | | | | | | | | | |
| | (17) | 33 | 36 | 41 | 34 | 34 | 47 | 39 | 37 | 24 | 30 | 16 |
| | (19) | 41 | 53 | 47 | 36 | 36 | 50 | 56 | 41 | 25 | 32 | 34 |
| | (9) | 20 | 23 | 27 | 20 | 23 | 23 | 28 | 21 | 17 | 10 | 18 |
| | (4) | 9 | 9 | 8 | 11 | 10 | 9 | 11 | 9 | 9 | 7 | 10 |
| ion | | | | | | | | | | | | |
| | (39) | 86 | 96 | 100 | 83 | 80 | 99 | 103 | 83 | 59 | 62 | 58 |
| | (10) | 17 | 25 | 23 | 18 | 23 | 30 | 31 | 25 | 16 | 17 | 20 |

Question IV_F Self Rating as Learning Manager (Averages)

| | | Ent | Effective | Identify | Planning | Use Oppor- | Listening | Accept | Analyse | Know own | Share | Review |
|--------------|-------|----------|-----------|----------|----------|------------|-----------|--------|---------|----------|-------|--------|
| | | Criteria | Own | Needs | Learning | rtunities | To Others | Help | Others | Limits | Info | |
| tries | (47) | 2.77 | 2.38 | 2.59 | 2.23 | 1.82 | 1.98 | 2.60 | 1.88 | 1.86 | 2.65 | |
| e Group | | | | | | | | | | | | |
| pecified | (0) | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| 25 | (1) | 3.00 | 3.00 | 3.00 | 2.00 | 3.00 | 4.00 | 2.00 | 2.00 | 3.00 | 4.00 | |
| 35 | (19) | 2.84 | 2.20 | 2.65 | 2.40 | 1.70 | 2.10 | 2.80 | 1.70 | 1.70 | 2.65 | |
| 45 | (14) | 2.50 | 2.47 | 2.40 | 2.00 | 1.73 | 1.87 | 2.50 | 1.80 | 1.87 | 2.33 | |
| 50 | (8) | 2.75 | 2.38 | 2.38 | 2.11 | 1.56 | 1.89 | 2.25 | 2.56 | 1.89 | 3.00 | |
| 50 | (5) | 3.20 | 2.67 | 3.20 | 2.40 | 2.67 | 1.67 | 2.80 | 1.67 | 2.17 | 2.80 | |
| aff Category | | | | | | | | | | | | |
| | (17) | 2.71 | 2.33 | 2.94 | 2.41 | 1.72 | 2.39 | 2.76 | 1.72 | 1.78 | 2.59 | |
| ng | (17) | 2.88 | 2.37 | 2.37 | 2.05 | 1.75 | 1.80 | 2.61 | 2.00 | 1.80 | 2.84 | |
| | (9) | 2.89 | 2.33 | 2.33 | 2.25 | 2.11 | 1.67 | 2.44 | 2.00 | 2.11 | 2.56 | |
| | (4) | 2.25 | 2.75 | 2.75 | 2.25 | 2.00 | 1.75 | 2.25 | 1.75 | 2.00 | 2.25 | |
| cation | | | | | | | | | | | | |
| | (37) | 2.78 | 2.56 | 2.69 | 2.37 | 1.75 | 2.02 | 2.71 | 1.90 | 1.85 | 2.62 | |
| | (10) | 2.70 | 1.73 | 2.20 | 1.70 | 2.09 | 1.82 | 2.20 | 1.82 | 1.91 | 2.80 | |

Question IV_F Self Rating as Learning Manager (Totals)

| | Ent | Effective | Identify | Planning | Use Oppor- | Listening | Accept | Analyse | Know own | Share | Review |
|-------------|----------|-----------|----------|----------|------------|-----------|--------|---------|----------|-------|--------|
| | Criteria | Own | Needs | Learning | rtunities | To Others | Help | Others | Limits | Info | |
| ries | (47) | 130 | 119 | 127 | 107 | 93 | 101 | 125 | 96 | 95 | 130 |
| Group | | | | | | | | | | | |
| pecified | (0) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | (1) | 3 | 3 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 4 |
| 5 | (19) | 54 | 44 | 53 | 48 | 34 | 42 | 56 | 34 | 34 | 53 |
| 5 | (14) | 35 | 37 | 36 | 26 | 26 | 28 | 35 | 27 | 28 | 35 |
| 0 | (8) | 22 | 19 | 19 | 19 | 14 | 17 | 18 | 23 | 17 | 24 |
| 50 | (5) | 16 | 16 | 16 | 12 | 16 | 10 | 14 | 10 | 13 | 14 |
| ff Category | | | | | | | | | | | |
| | (17) | 46 | 42 | 50 | 41 | 31 | 43 | 47 | 31 | 32 | 44 |
| g | (17) | 49 | 45 | 45 | 39 | 35 | 36 | 47 | 40 | 36 | 54 |
| | (9) | 26 | 21 | 21 | 18 | 19 | 15 | 22 | 18 | 19 | 23 |
| | (4) | 9 | 11 | 11 | 9 | 8 | 7 | 9 | 7 | 8 | 9 |
| ation | | | | | | | | | | | |
| | (37) | 103 | 100 | 105 | 90 | 70 | 81 | 103 | 76 | 74 | 102 |
| | (10) | 27 | 19 | 22 | 17 | 23 | 20 | 22 | 20 | 21 | 28 |

Question IV_E Self Rating as Effective Manager (Averages)

| | Ent | Collect | Setting | Defining | Planning | Translting | Monitor- | Reveiwing | Deciding | Communica- | Resources | People |
|---------------|------|-----------|-----------|----------|----------|------------|----------|-----------|----------|------------|-----------|--------|
| | Data | Objective | Standards | Tasks | Plans | ing | Results | | | ation | | |
| ries (49) | 2.10 | 2.37 | 2.41 | 2.06 | 2.06 | 2.53 | 2.68 | 2.12 | 2.08 | 2.47 | 2.00 | |
| Group | | | | | | | | | | | | |
| pecified (0) | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** | *,** |
| 25 (1) | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 4.00 | 2.00 | 2.00 | 2.00 | *,** | |
| 5 (20) | 2.25 | 1.95 | 2.55 | 2.30 | 2.05 | 2.60 | 2.60 | 2.10 | 2.13 | 2.64 | 2.00 | |
| 5 (15) | 2.47 | 2.33 | 2.20 | 1.87 | 2.00 | 2.27 | 2.47 | 1.80 | 1.92 | 2.30 | 2.08 | |
| 5 (8) | 1.50 | 3.00 | 2.11 | 1.88 | 2.00 | 2.78 | 3.11 | 2.22 | 2.33 | 2.33 | 2.00 | |
| 50 (5) | 1.40 | 3.17 | 3.00 | 2.20 | 2.50 | 2.67 | 2.60 | 2.83 | 2.00 | 2.75 | 1.75 | |
| ff Category | | | | | | | | | | | | |
| (17) | 1.94 | 2.00 | 2.28 | 2.00 | 1.89 | 2.61 | 2.29 | 2.06 | 1.85 | 2.50 | 1.78 | |
| g (19) | 2.16 | 2.65 | 2.35 | 1.89 | 1.89 | 2.50 | 2.80 | 2.05 | 1.79 | 2.46 | 1.89 | |
| (9) | 2.22 | 2.56 | 3.00 | 2.22 | 2.56 | 2.56 | 3.11 | 2.33 | 2.83 | 2.50 | 2.25 | |
| (4) | 2.25 | 2.25 | 2.00 | 2.75 | 2.50 | 2.25 | 2.75 | 2.25 | 3.00 | 2.33 | 2.50 | |
| ation | | | | | | | | | | | | |
| (39) | 2.21 | 2.40 | 2.50 | 2.13 | 2.05 | 2.48 | 2.58 | 2.08 | 2.03 | 2.30 | 1.93 | |
| (10) | 1.70 | 2.27 | 2.09 | 1.80 | 2.09 | 2.73 | 3.10 | 2.27 | 2.29 | 3.40 | 2.22 | |

APPENDIX 2 (xxxiii)(i)

Learning Styles

Detail

| CE | RO | AC | AE | P | R | T | A |
|----|----|----|----|----|----|----|----|
| 14 | 11 | 19 | 17 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 10 | 9 | 22 | 11 | 6 | 3 | 16 |
| 10 | 11 | 23 | 16 | 8 | 11 | 10 | 4 |
| 0 | 0 | 0 | 0 | 15 | 19 | 15 | 11 |
| 0 | 0 | 0 | 0 | 12 | 15 | 11 | 11 |
| 14 | 14 | 14 | 19 | 12 | 11 | 12 | 11 |
| 15 | 14 | 16 | 20 | 0 | 0 | 0 | 0 |
| 11 | 15 | 19 | 17 | 10 | 16 | 13 | 6 |
| 10 | 20 | 23 | 13 | 4 | 15 | 10 | 8 |
| 11 | 14 | 17 | 20 | 12 | 11 | 14 | 7 |
| 12 | 10 | 17 | 20 | 17 | 16 | 15 | 9 |
| 19 | 19 | 14 | 16 | 11 | 16 | 13 | 5 |
| 12 | 14 | 24 | 15 | 14 | 15 | 13 | 6 |
| 15 | 12 | 14 | 16 | 18 | 7 | 15 | 17 |
| 0 | 0 | 0 | 0 | 14 | 10 | 10 | 17 |
| 13 | 18 | 10 | 22 | 18 | 15 | 15 | 13 |
| 12 | 14 | 15 | 17 | 16 | 16 | 15 | 14 |
| 0 | 0 | 0 | 0 | 11 | 6 | 5 | 12 |
| 0 | 0 | 0 | 0 | 15 | 12 | 11 | 9 |
| 12 | 12 | 23 | 16 | 14 | 13 | 13 | 8 |
| 20 | 12 | 9 | 17 | 15 | 17 | 16 | 4 |
| 17 | 13 | 16 | 19 | 8 | 7 | 4 | 10 |
| 19 | 17 | 15 | 15 | 12 | 11 | 12 | 13 |
| 19 | 15 | 10 | 19 | 0 | 0 | 0 | 0 |
| 18 | 16 | 11 | 21 | 14 | 13 | 9 | 13 |
| 13 | 11 | 14 | 18 | 16 | 13 | 9 | 15 |
| 12 | 11 | 20 | 15 | 14 | 10 | 11 | 12 |
| 13 | 17 | 17 | 7 | 17 | 9 | 17 | 12 |
| 14 | 13 | 15 | 17 | 13 | 17 | 13 | 9 |
| 19 | 18 | 18 | 17 | 16 | 14 | 13 | 13 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 16 | 13 | 18 | 13 | 16 | 12 | 14 |
| 12 | 15 | 13 | 21 | 16 | 10 | 14 | 8 |
| 20 | 13 | 8 | 17 | 17 | 8 | 11 | 12 |
| 0 | 0 | 0 | 0 | 12 | 3 | 7 | 18 |
| 18 | 22 | 12 | 12 | 13 | 13 | 12 | 8 |
| 16 | 17 | 19 | 17 | 16 | 14 | 12 | 12 |
| 18 | 13 | 14 | 21 | 13 | 7 | 8 | 13 |
| 17 | 17 | 13 | 18 | 16 | 10 | 12 | 5 |
| 13 | 13 | 20 | 12 | 4 | 17 | 8 | 8 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | 14 | 15 | 19 | 13 | 10 | 8 | 9 |
| 16 | 19 | 16 | 10 | 14 | 17 | 12 | 8 |
| 16 | 10 | 18 | 17 | 16 | 12 | 16 | 12 |
| 22 | 18 | 14 | 9 | 10 | 14 | 5 | 9 |
| 13 | 14 | 16 | 22 | 16 | 14 | 13 | 13 |
| 17 | 18 | 11 | 15 | 11 | 7 | 13 | 5 |
| 14 | 15 | 15 | 20 | 14 | 16 | 14 | 11 |
| 16 | 15 | 17 | 16 | 17 | 14 | 16 | 17 |
| 12 | 15 | 17 | 22 | 15 | 17 | 14 | 5 |
| 12 | 15 | 18 | 21 | 12 | 9 | 10 | 11 |

tries

Learning Styles

Detail

| | CE | RO | AC | AE | | P | R | T | A |
|----------------|------|------|------|------|---|------|------|------|------|
| | 13 | 18 | 22 | 10 | : | 16 | 16 | 17 | 10 |
| | 7 | 7 | 9 | 9 | : | 14 | 9 | 13 | 14 |
| | 18 | 14 | 15 | 21 | : | 11 | 11 | 12 | 8 |
| e for tries | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |
| l Average | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |

Learning Styles
By Age Group
Detail

| | CE | RO | AC | AE | | P | R | T | A |
|---------------|------|------|------|------|--|------|------|------|------|
| Specified | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| for Specified | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 19 | 18 | 18 | 17 | | 16 | 14 | 13 | 13 |
| for 25 | 19.0 | 18.0 | 18.0 | 17.0 | | 16.0 | 14.0 | 13.0 | 13.0 |
| 5 | 14 | 11 | 19 | 17 | | 0 | 0 | 0 | 0 |
| | 20 | 10 | 9 | 22 | | 11 | 6 | 3 | 16 |
| | 10 | 11 | 23 | 16 | | 8 | 11 | 10 | 4 |
| | 14 | 14 | 14 | 19 | | 12 | 11 | 12 | 11 |
| | 12 | 10 | 17 | 20 | | 17 | 16 | 15 | 9 |
| | 12 | 14 | 24 | 15 | | 14 | 15 | 13 | 6 |
| | 15 | 12 | 14 | 16 | | 18 | 7 | 15 | 17 |
| | 0 | 0 | 0 | 0 | | 14 | 10 | 10 | 17 |
| | 12 | 14 | 15 | 17 | | 16 | 16 | 15 | 14 |
| | 0 | 0 | 0 | 0 | | 15 | 12 | 11 | 9 |
| | 13 | 11 | 14 | 18 | | 16 | 13 | 9 | 15 |
| | 20 | 13 | 8 | 17 | | 17 | 8 | 11 | 12 |
| | 16 | 17 | 19 | 17 | | 16 | 14 | 12 | 12 |
| | 17 | 17 | 13 | 18 | | 16 | 10 | 12 | 5 |
| | 13 | 13 | 20 | 12 | | 4 | 17 | 8 | 8 |
| | 16 | 14 | 15 | 19 | | 13 | 10 | 8 | 9 |
| | 16 | 19 | 16 | 10 | | 14 | 17 | 12 | 8 |
| | 13 | 14 | 16 | 22 | | 16 | 14 | 13 | 13 |
| | 17 | 18 | 11 | 15 | | 11 | 7 | 13 | 5 |
| | 7 | 7 | 9 | 9 | | 14 | 9 | 13 | 14 |
| | 18 | 14 | 15 | 21 | | 11 | 11 | 12 | 8 |
| ge for 35 | 14.4 | 13.3 | 15.3 | 16.8 | | 13.6 | 11.7 | 11.3 | 10.6 |
| 45 | 0 | 0 | 0 | 0 | | 15 | 19 | 15 | 11 |
| | 0 | 0 | 0 | 0 | | 12 | 15 | 11 | 11 |
| | 10 | 20 | 23 | 13 | | 4 | 15 | 10 | 8 |
| | 13 | 18 | 10 | 22 | | 18 | 15 | 15 | 13 |
| | 0 | 0 | 0 | 0 | | 11 | 6 | 5 | 12 |
| | 12 | 12 | 23 | 16 | | 14 | 13 | 13 | 8 |
| | 17 | 13 | 16 | 19 | | 8 | 7 | 4 | 10 |
| | 19 | 15 | 10 | 19 | | 0 | 0 | 0 | 0 |
| | 12 | 11 | 20 | 15 | | 14 | 10 | 11 | 12 |
| | 14 | 13 | 15 | 17 | | 13 | 17 | 13 | 9 |
| | 18 | 13 | 14 | 21 | | 13 | 7 | 8 | 13 |
| | 16 | 10 | 18 | 17 | | 16 | 12 | 16 | 12 |

Learning Styles
By Age Group
Detail

| | CE | RO | AC | AE | | P | R | T | A |
|-------------|------|------|------|------|---|------|------|------|------|
| | 22 | 18 | 14 | 9 | : | 10 | 14 | 5 | 9 |
| | 14 | 15 | 15 | 20 | : | 14 | 16 | 14 | 11 |
| | 16 | 15 | 17 | 16 | : | 17 | 14 | 16 | 17 |
| e for 5 | 15.2 | 14.4 | 16.2 | 17.0 | | 12.7 | 12.8 | 11.1 | 11.1 |
|) | 15 | 14 | 16 | 20 | : | 0 | 0 | 0 | 0 |
| | 11 | 15 | 19 | 17 | : | 10 | 16 | 13 | 6 |
| | 19 | 19 | 14 | 16 | : | 11 | 16 | 13 | 5 |
| | 20 | 12 | 9 | 17 | : | 15 | 17 | 16 | 4 |
| | 13 | 17 | 17 | 7 | : | 17 | 9 | 17 | 12 |
| | 0 | 0 | 0 | 0 | : | 12 | 3 | 7 | 18 |
| | 12 | 15 | 17 | 22 | : | 15 | 17 | 14 | 5 |
| | 12 | 15 | 18 | 21 | : | 12 | 9 | 10 | 11 |
| | 13 | 18 | 22 | 10 | : | 16 | 16 | 17 | 10 |
| e for 0 | 14.3 | 15.6 | 16.5 | 16.2 | | 13.5 | 12.8 | 13.3 | 8.8 |
| 50 | 11 | 14 | 17 | 20 | : | 12 | 11 | 14 | 7 |
| | 19 | 17 | 15 | 15 | : | 12 | 11 | 12 | 13 |
| | 18 | 16 | 11 | 21 | : | 14 | 13 | 9 | 13 |
| | 15 | 16 | 13 | 18 | : | 13 | 16 | 12 | 14 |
| | 12 | 15 | 13 | 21 | : | 16 | 10 | 14 | 8 |
| | 18 | 22 | 12 | 12 | : | 13 | 13 | 12 | 8 |
| e for 50 | 15.5 | 16.6 | 13.5 | 17.8 | | 13.3 | 12.3 | 12.1 | 10.5 |
| l Average | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |

Learning Styles
By Staff Category
Detail

| CE | RO | AC | AE | P | R | T | A |
|----|----|----|----|----|----|----|----|
| 14 | 11 | 19 | 17 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 10 | 9 | 22 | 11 | 6 | 3 | 16 |
| 10 | 11 | 23 | 16 | 8 | 11 | 10 | 4 |
| 15 | 14 | 16 | 20 | 0 | 0 | 0 | 0 |
| 11 | 15 | 19 | 17 | 10 | 16 | 13 | 6 |
| 12 | 14 | 24 | 15 | 14 | 15 | 13 | 6 |
| 15 | 12 | 14 | 16 | 18 | 7 | 15 | 17 |
| 0 | 0 | 0 | 0 | 14 | 10 | 10 | 17 |
| 13 | 18 | 10 | 22 | 18 | 15 | 15 | 13 |
| 12 | 12 | 23 | 16 | 14 | 13 | 13 | 8 |
| 20 | 12 | 9 | 17 | 15 | 17 | 16 | 4 |
| 19 | 18 | 18 | 17 | 16 | 14 | 13 | 13 |
| 15 | 16 | 13 | 18 | 13 | 16 | 12 | 14 |
| 16 | 17 | 19 | 17 | 16 | 14 | 12 | 12 |
| 17 | 17 | 13 | 18 | 16 | 10 | 12 | 5 |
| 13 | 13 | 20 | 12 | 4 | 17 | 8 | 8 |
| 16 | 14 | 15 | 19 | 13 | 10 | 8 | 9 |
| 16 | 19 | 16 | 10 | 14 | 17 | 12 | 8 |
| 16 | 10 | 18 | 17 | 16 | 12 | 16 | 12 |

e for

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| 15.0 | 14.0 | 16.5 | 17.0 | 13.5 | 12.9 | 11.8 | 10.1 |
|------|------|------|------|------|------|------|------|

g

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 0 | 0 | 0 | 0 | 15 | 19 | 15 | 11 |
| 0 | 0 | 0 | 0 | 12 | 15 | 11 | 11 |
| 14 | 14 | 14 | 19 | 12 | 11 | 12 | 11 |
| 10 | 20 | 23 | 13 | 4 | 15 | 10 | 8 |
| 19 | 19 | 14 | 16 | 11 | 16 | 13 | 5 |
| 12 | 14 | 15 | 17 | 16 | 16 | 15 | 14 |
| 0 | 0 | 0 | 0 | 11 | 6 | 5 | 12 |
| 17 | 13 | 16 | 19 | 8 | 7 | 4 | 10 |
| 19 | 17 | 15 | 15 | 12 | 11 | 12 | 13 |
| 19 | 15 | 10 | 19 | 0 | 0 | 0 | 0 |
| 13 | 17 | 17 | 7 | 17 | 9 | 17 | 12 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 15 | 13 | 21 | 16 | 10 | 14 | 8 |
| 20 | 13 | 8 | 17 | 17 | 8 | 11 | 12 |
| 0 | 0 | 0 | 0 | 12 | 3 | 7 | 18 |
| 22 | 18 | 14 | 9 | 10 | 14 | 5 | 9 |
| 13 | 14 | 16 | 22 | 16 | 14 | 13 | 13 |
| 17 | 18 | 11 | 15 | 11 | 7 | 13 | 5 |
| 16 | 15 | 17 | 16 | 17 | 14 | 16 | 17 |
| 12 | 15 | 17 | 22 | 15 | 17 | 14 | 5 |
| 12 | 15 | 18 | 21 | 12 | 9 | 10 | 11 |

e for

g

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| 15.4 | 15.7 | 14.8 | 16.7 | 12.8 | 11.6 | 11.4 | 10.7 |
|------|------|------|------|------|------|------|------|

| | | | | | | | |
|----|----|----|----|----|----|----|---|
| 12 | 10 | 17 | 20 | 17 | 16 | 15 | 9 |
|----|----|----|----|----|----|----|---|

Learning Styles
By Staff Category
Detail

| | CE | RO | AC | AE | | P | R | T | A |
|-----------|------|------|------|------|---|------|------|------|------|
| | 0 | 0 | 0 | 0 | : | 15 | 12 | 11 | 9 |
| | 18 | 16 | 11 | 21 | : | 14 | 13 | 9 | 13 |
| | 13 | 11 | 14 | 18 | : | 16 | 13 | 9 | 15 |
| | 12 | 11 | 20 | 15 | : | 14 | 10 | 11 | 12 |
| | 14 | 13 | 15 | 17 | : | 13 | 17 | 13 | 9 |
| | 18 | 22 | 12 | 12 | : | 13 | 13 | 12 | 8 |
| | 18 | 13 | 14 | 21 | : | 13 | 7 | 8 | 13 |
| | 0 | 0 | 0 | 0 | : | 0 | 0 | 0 | 0 |
| | 18 | 14 | 15 | 21 | : | 11 | 11 | 12 | 8 |
| e for | 15.3 | 13.7 | 14.7 | 18.1 | | 14.0 | 12.4 | 11.1 | 10.6 |
| | 11 | 14 | 17 | 20 | : | 12 | 11 | 14 | 7 |
| | 14 | 15 | 15 | 20 | : | 14 | 16 | 14 | 11 |
| | 13 | 18 | 22 | 10 | : | 16 | 16 | 17 | 10 |
| | 7 | 7 | 9 | 9 | : | 14 | 9 | 13 | 14 |
| e for | 11.2 | 13.5 | 15.7 | 14.7 | | 14.0 | 13.0 | 14.5 | 10.5 |
| l Average | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |

Learning Styles
By Location
Detail

| CE | RO | AC | AE | | P | R | T | A |
|----|----|----|----|---|----|----|----|----|
| 14 | 11 | 19 | 17 | : | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | : | 0 | 0 | 0 | 0 |
| 10 | 11 | 23 | 16 | : | 8 | 11 | 10 | 4 |
| 0 | 0 | 0 | 0 | : | 15 | 19 | 15 | 11 |
| 0 | 0 | 0 | 0 | : | 12 | 15 | 11 | 11 |
| 14 | 14 | 14 | 19 | : | 12 | 11 | 12 | 11 |
| 11 | 15 | 19 | 17 | : | 10 | 16 | 13 | 6 |
| 10 | 20 | 23 | 13 | : | 4 | 15 | 10 | 8 |
| 11 | 14 | 17 | 20 | : | 12 | 11 | 14 | 7 |
| 12 | 10 | 17 | 20 | : | 17 | 16 | 15 | 9 |
| 19 | 19 | 14 | 16 | : | 11 | 16 | 13 | 5 |
| 12 | 14 | 24 | 15 | : | 14 | 15 | 13 | 6 |
| 15 | 12 | 14 | 16 | : | 18 | 7 | 15 | 17 |
| 0 | 0 | 0 | 0 | : | 14 | 10 | 10 | 17 |
| 13 | 18 | 10 | 22 | : | 18 | 15 | 15 | 13 |
| 12 | 14 | 15 | 17 | : | 16 | 16 | 15 | 14 |
| 0 | 0 | 0 | 0 | : | 11 | 6 | 5 | 12 |
| 0 | 0 | 0 | 0 | : | 15 | 12 | 11 | 9 |
| 12 | 12 | 23 | 16 | : | 14 | 13 | 13 | 8 |
| 20 | 12 | 9 | 17 | : | 15 | 17 | 16 | 4 |
| 17 | 13 | 16 | 19 | : | 8 | 7 | 4 | 10 |
| 19 | 15 | 10 | 19 | : | 0 | 0 | 0 | 0 |
| 18 | 16 | 11 | 21 | : | 14 | 13 | 9 | 13 |
| 13 | 11 | 14 | 18 | : | 16 | 13 | 9 | 15 |
| 13 | 17 | 17 | 7 | : | 17 | 9 | 17 | 12 |
| 14 | 13 | 15 | 17 | : | 13 | 17 | 13 | 9 |
| 19 | 18 | 18 | 17 | : | 16 | 14 | 13 | 13 |
| 0 | 0 | 0 | 0 | : | 0 | 0 | 0 | 0 |
| 12 | 15 | 13 | 21 | : | 16 | 10 | 14 | 8 |
| 20 | 13 | 8 | 17 | : | 17 | 8 | 11 | 12 |
| 0 | 0 | 0 | 0 | : | 12 | 3 | 7 | 18 |
| 18 | 22 | 12 | 12 | : | 13 | 13 | 12 | 8 |
| 16 | 17 | 19 | 17 | : | 16 | 14 | 12 | 12 |
| 18 | 13 | 14 | 21 | : | 13 | 7 | 8 | 13 |
| 17 | 17 | 13 | 18 | : | 16 | 10 | 12 | 5 |
| 13 | 13 | 20 | 12 | : | 4 | 17 | 8 | 8 |
| 0 | 0 | 0 | 0 | : | 0 | 0 | 0 | 0 |
| 16 | 14 | 15 | 19 | : | 13 | 10 | 8 | 9 |
| 16 | 19 | 16 | 10 | : | 14 | 17 | 12 | 8 |
| 16 | 10 | 18 | 17 | : | 16 | 12 | 16 | 12 |
| 22 | 18 | 14 | 9 | : | 10 | 14 | 5 | 9 |
| 14 | 15 | 15 | 20 | : | 14 | 16 | 14 | 11 |
| 16 | 15 | 17 | 16 | : | 17 | 14 | 16 | 17 |
| 18 | 14 | 15 | 21 | : | 11 | 11 | 12 | 8 |

ge for

15.1 14.6 15.7 16.8 13.3 12.5 11.7 10.3

| | | | | | | | | |
|----|----|----|----|---|----|----|----|----|
| 20 | 10 | 9 | 22 | : | 11 | 6 | 3 | 16 |
| 15 | 14 | 16 | 20 | : | 0 | 0 | 0 | 0 |
| 19 | 17 | 15 | 15 | : | 12 | 11 | 12 | 13 |

Learning Styles
By Location
Detail

| CE | RO | AC | AE | | P | R | T | A |
|----|----|----|----|---|----|----|----|----|
| 12 | 11 | 20 | 15 | : | 14 | 10 | 11 | 12 |
| 15 | 16 | 13 | 18 | : | 13 | 16 | 12 | 14 |
| 13 | 14 | 16 | 22 | : | 16 | 14 | 13 | 13 |
| 17 | 18 | 11 | 15 | : | 11 | 7 | 13 | 5 |
| 12 | 15 | 17 | 22 | : | 15 | 17 | 14 | 5 |
| 12 | 15 | 18 | 21 | : | 12 | 9 | 10 | 11 |
| 13 | 18 | 22 | 10 | : | 16 | 16 | 17 | 10 |
| 7 | 7 | 9 | 9 | : | 14 | 9 | 13 | 14 |

e for

| | | | | | | | | |
|------|------|------|------|--|------|------|------|------|
| 14.0 | 14.0 | 15.0 | 17.1 | | 13.4 | 11.5 | 11.8 | 11.3 |
|------|------|------|------|--|------|------|------|------|

l Average

| | | | | | | | | |
|------|------|------|------|--|------|------|------|------|
| 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |
|------|------|------|------|--|------|------|------|------|

Learning Styles
By Location
Summary

| | CE | RO | AC | AE | | P | R | T | A |
|---------------|------|------|------|------|--|------|------|------|------|
| e for ries | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |
| l Average | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |

Learning Styles
By Age Group
Summary

| | CE | RO | AC | AE | P | R | T | A |
|--------------------|------|------|------|------|------|------|------|------|
| e for Specified | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| e for 25 | 19.0 | 18.0 | 18.0 | 17.0 | 16.0 | 14.0 | 13.0 | 13.0 |
| e for 5 | 14.4 | 13.3 | 15.3 | 16.8 | 13.6 | 11.7 | 11.3 | 10.6 |
| e for 5 | 15.2 | 14.4 | 16.2 | 17.0 | 12.7 | 12.8 | 11.1 | 11.1 |
| e for 60 | 14.3 | 15.6 | 16.5 | 16.2 | 13.5 | 12.8 | 13.3 | 8.8 |
| e for 50 | 15.5 | 16.6 | 13.5 | 17.8 | 13.3 | 12.3 | 12.1 | 10.5 |
| .1 Average | 14.8 | 14.5 | 15.5 | 16.9 | 13.3 | 12.3 | 11.7 | 10.5 |

Learning Styles
By Staff Category
Summary

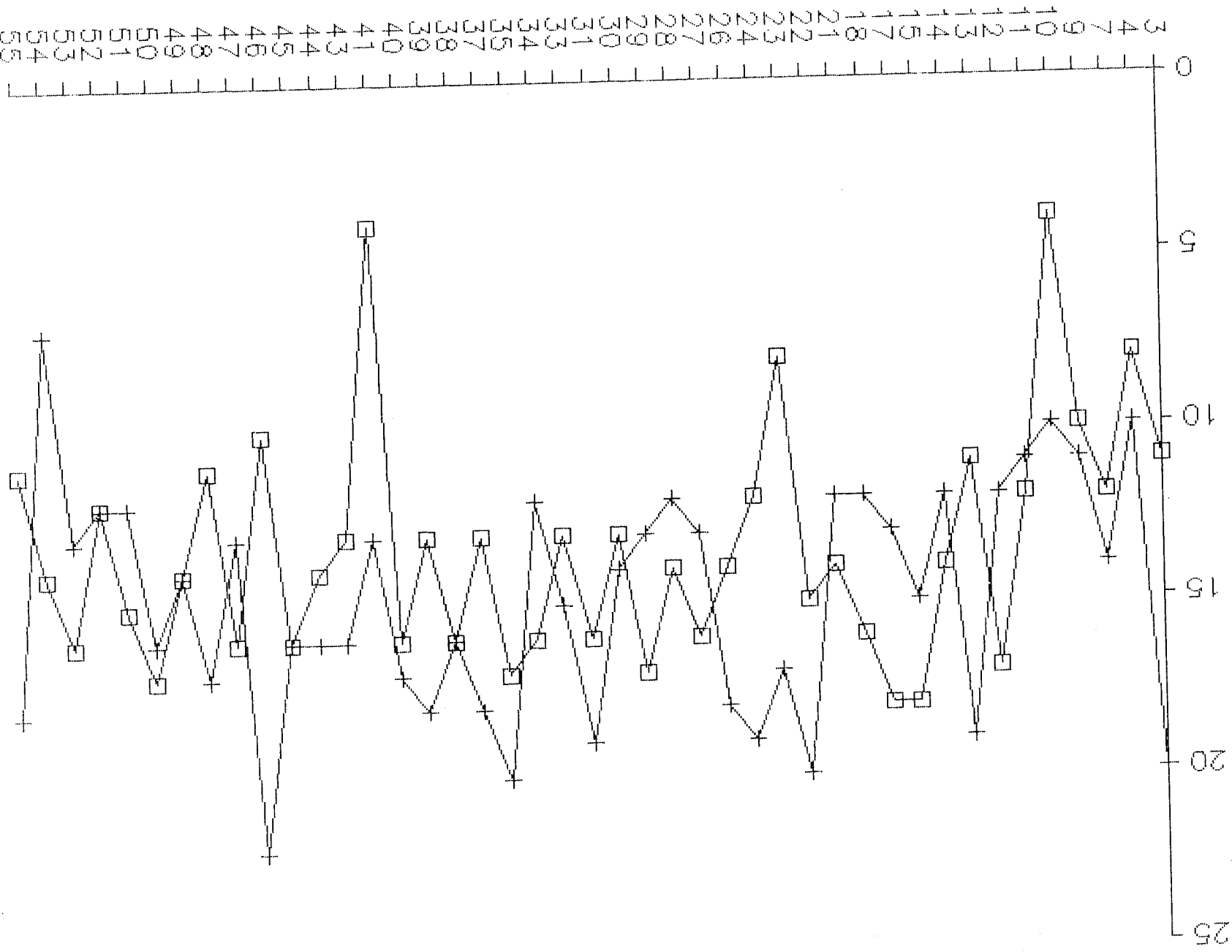
| | CE | RO | AC | AE | P | R | T | A |
|--------------|------|------|------|------|------|------|------|------|
| ge for | 15.0 | 14.0 | 16.5 | 17.0 | 13.5 | 12.9 | 11.8 | 10.1 |
| ge for lg | 15.4 | 15.7 | 14.8 | 16.7 | 12.8 | 11.6 | 11.4 | 10.7 |
| ge for | 15.3 | 13.7 | 14.7 | 18.1 | 14.0 | 12.4 | 11.1 | 10.6 |
| ge for | 11.2 | 13.5 | 15.7 | 14.7 | 14.0 | 13.0 | 14.5 | 10.5 |
| ll Average | 14.8 | 14.5 | 15.5 | 16.9 | 13.3 | 12.3 | 11.7 | 10.5 |

Learning Styles
By Location
Summary

| | CE | RO | AC | AE | | P | R | T | A |
|------------|------|------|------|------|--|------|------|------|------|
| ge for | 15.1 | 14.6 | 15.7 | 16.8 | | 13.3 | 12.5 | 11.7 | 10.3 |
| ge for | 14.0 | 14.0 | 15.0 | 17.1 | | 13.4 | 11.5 | 11.8 | 11.3 |
| ll Average | 14.8 | 14.5 | 15.5 | 16.9 | | 13.3 | 12.3 | 11.7 | 10.5 |

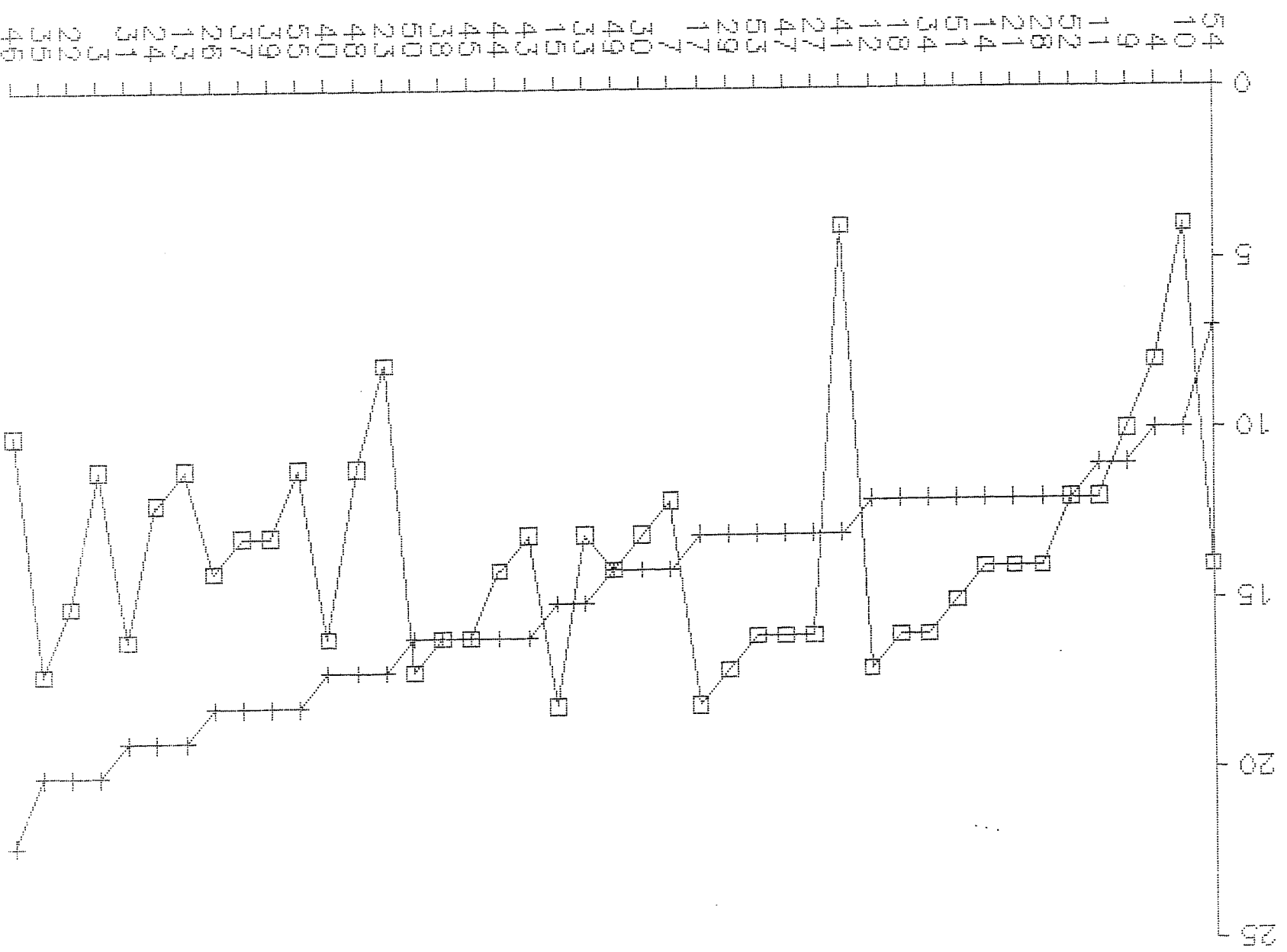
Graph of CE against P

—+— CE
—□— P



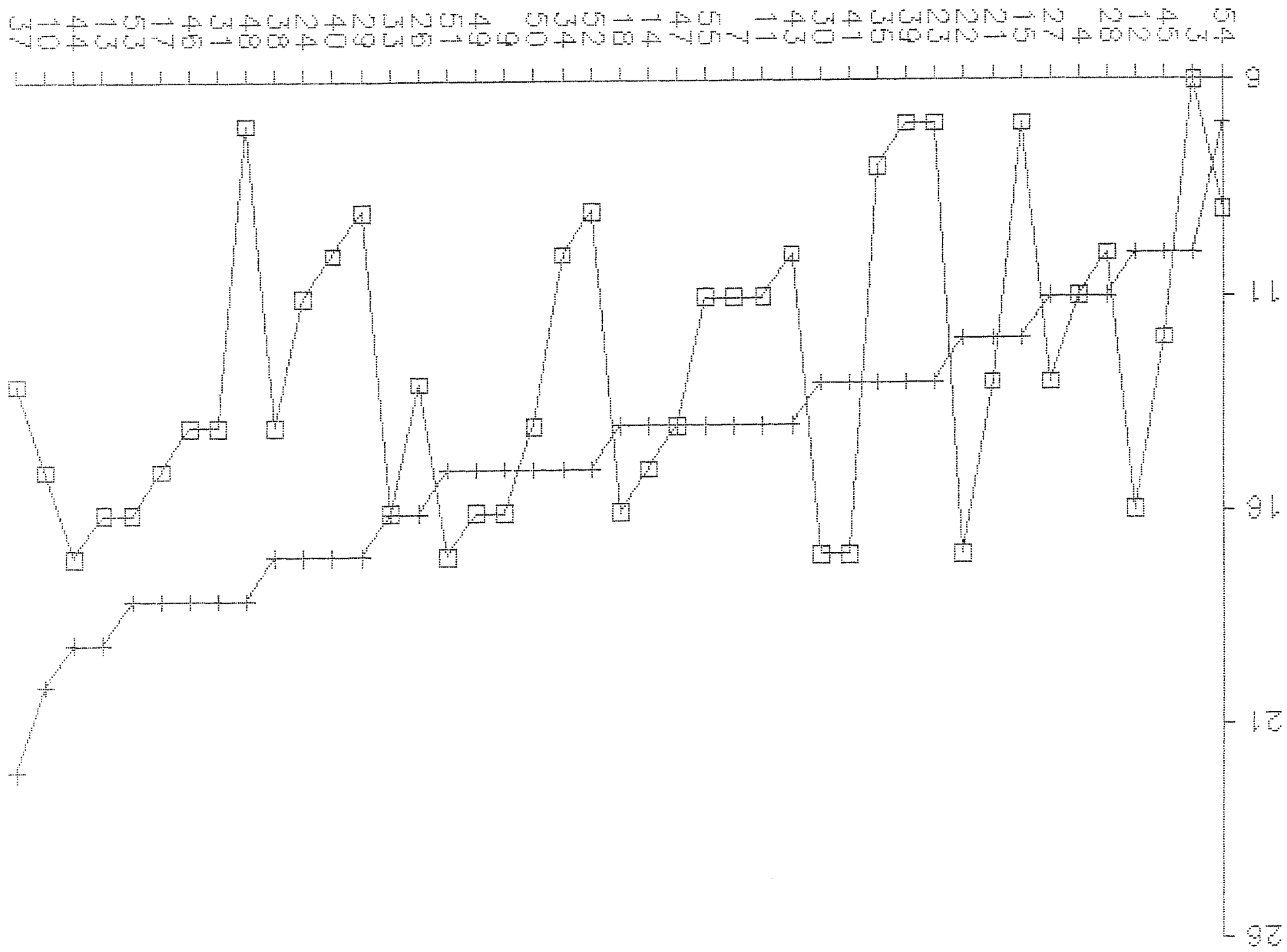
Graph of CE and P
Sorted by CE and then P

—+— CE
—□— P



Graph of R0 and R
Sorted by R0 and then R

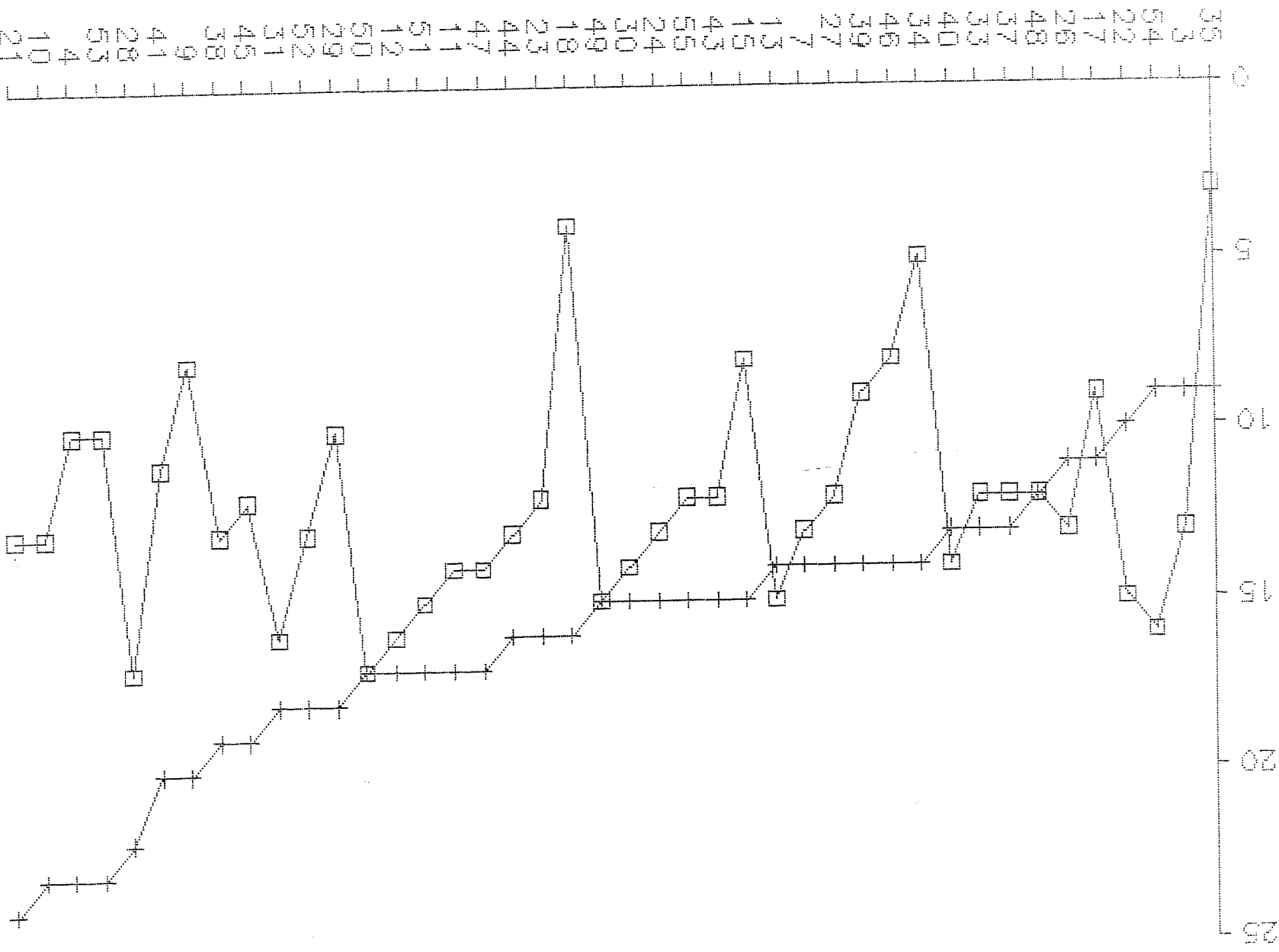
—+— R0
—□— R



Graph of AC and T

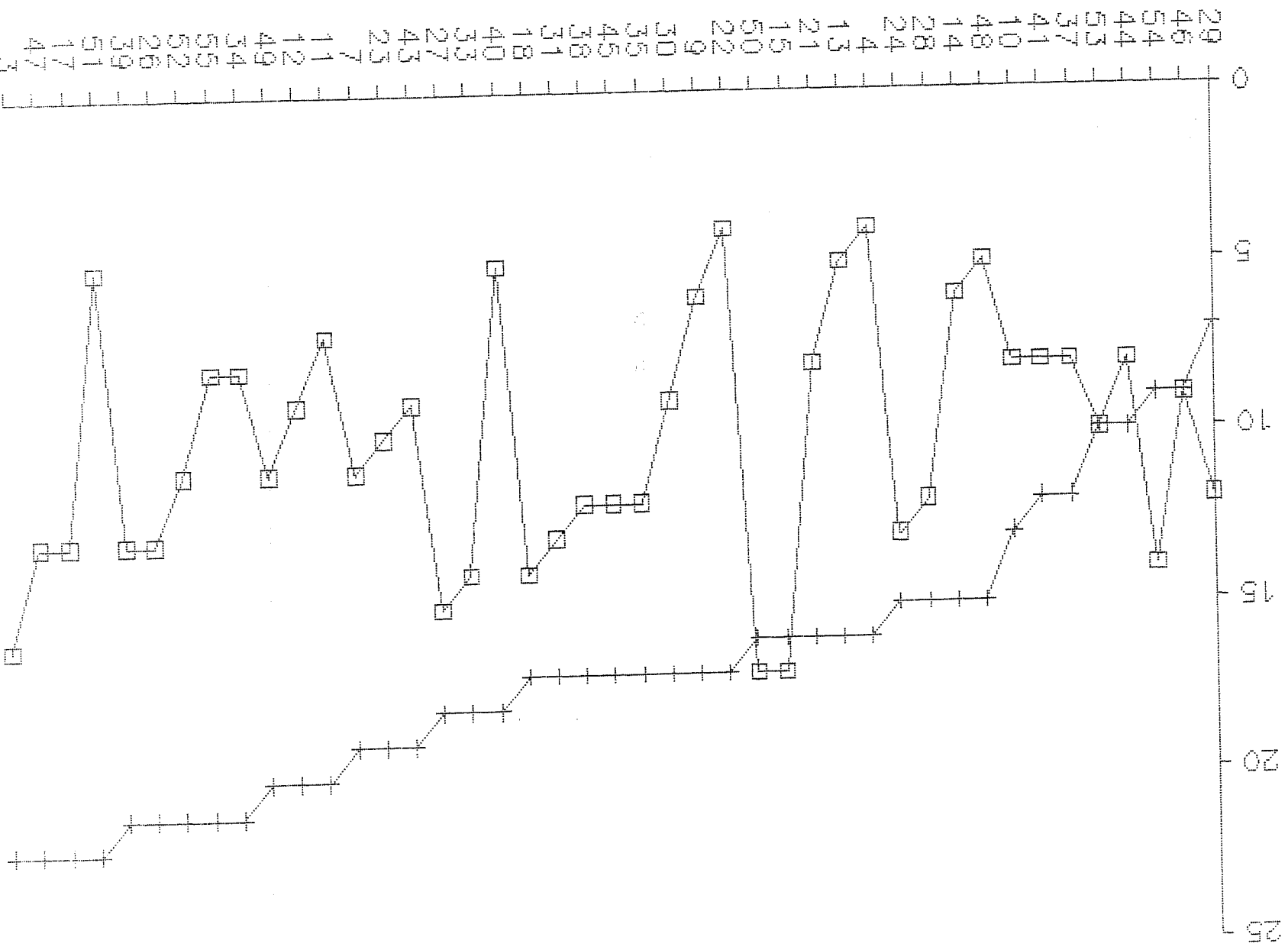
Sorted by AC and then T

AC —+—
T —□—



Graph of AE and A
Sorted by AE and then A

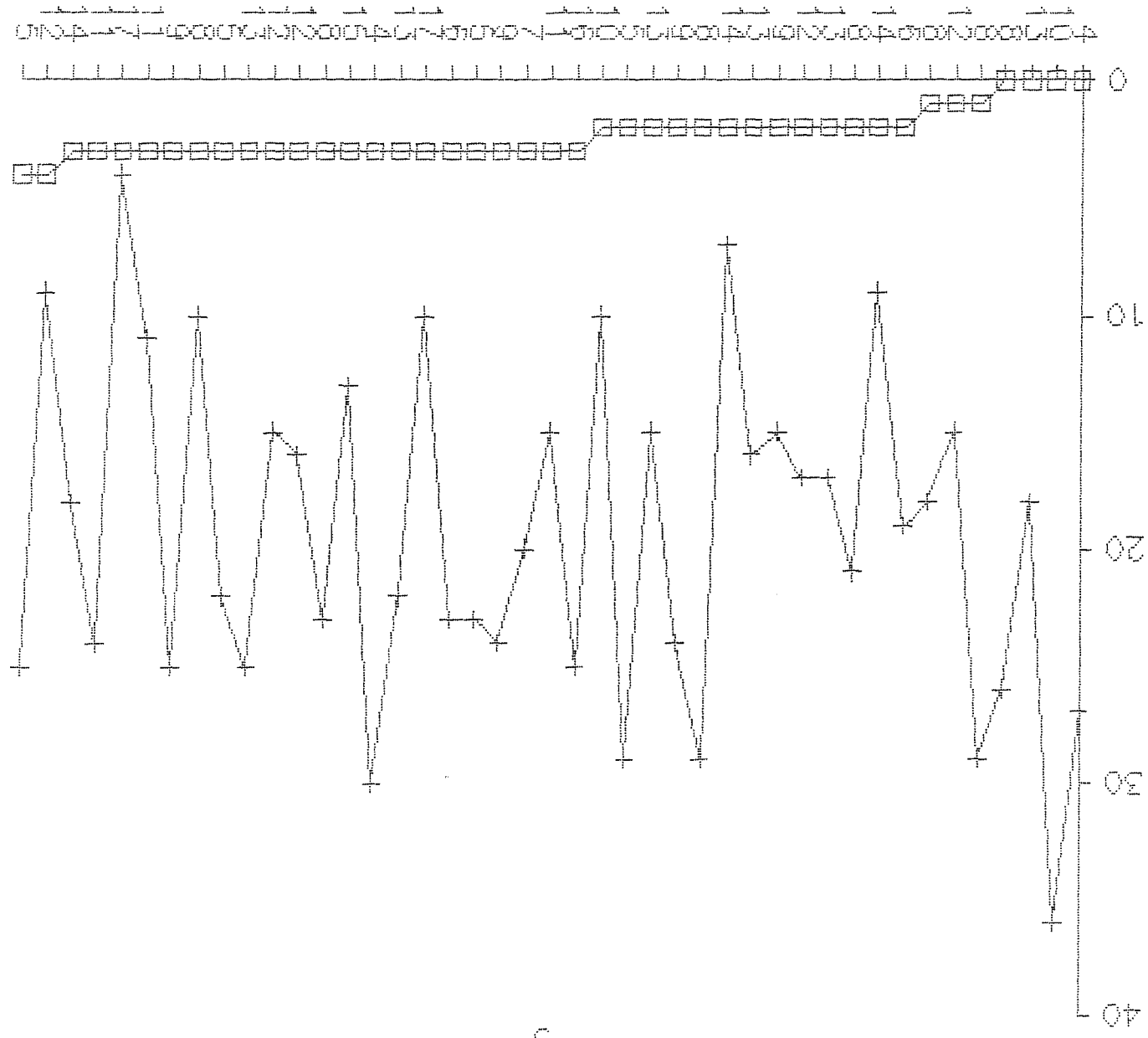
---+--- AE
---□--- A



Graph of Summed Difference

Against Confidence

—+— Total Difference
—□— Confidence in test



APPENDIX 2 (xxxiv)

Question V_C Does Score Accurately Reflect Self-Assessment

| | Entries | Exactly | For the Most Part | Some | Partly | Not at All |
|----------------|---------|----------|----------------------|----------|----------|------------|
| Entries | (46) | 2 / 4% | 25 / 54% | 14 / 30% | 5 / 10% | 0 / 0% |
| Age Group | | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| 25 | (1) | 0 / 0% | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| 35 | (19) | 0 / 0% | 12 / 63% | 6 / 31% | 1 / 5% | 0 / 0% |
| 45 | (13) | 1 / 7% | 8 / 61% | 2 / 15% | 2 / 15% | 0 / 0% |
| 50 | (8) | 1 / 12% | 3 / 37% | 3 / 37% | 1 / 12% | 0 / 0% |
| 50 | (5) | 0 / 0% | 2 / 40% | 2 / 40% | 1 / 20% | 0 / 0% |
| Staff Category | | | | | | |
| 1 | (18) | 1 / 5% | 9 / 50% | 6 / 33% | 2 / 11% | 0 / 0% |
| ing | (16) | 1 / 6% | 10 / 62% | 4 / 25% | 1 / 6% | 0 / 0% |
| 1 | (8) | 0 / 0% | 3 / 37% | 3 / 37% | 2 / 25% | 0 / 0% |
| 2 | (4) | 0 / 0% | 3 / 75% | 1 / 25% | 0 / 0% | 0 / 0% |
| Location | | | | | | |
| | (36) | 1 / 2% | 22 / 61% | 10 / 27% | 3 / 8% | 0 / 0% |
| | (10) | 1 / 10% | 3 / 30% | 4 / 40% | 2 / 20% | 0 / 0% |

APPENDIX 2 (xxxiv)

Question V_C Reasons For Conclusions About LSI/LSQ

| | Entries | Learn More From Experience | Description | Score Matches Self Percep. | Other |
|----------------|---------|-------------------------------|-------------|-------------------------------|----------|
| Entries | (40) | 10 / 25% | 8 / 20% | 5 / 12% | 17 / 42% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| 35 | (15) | 7 / 46% | 1 / 6% | 2 / 13% | 5 / 33% |
| 45 | (11) | 2 / 18% | 2 / 18% | 0 / 0% | 7 / 63% |
| 50 | (7) | 1 / 14% | 3 / 42% | 1 / 14% | 2 / 28% |
| ≥ 50 | (6) | 0 / 0% | 1 / 16% | 2 / 33% | 3 / 50% |
| Staff Category | | | | | |
| n | (15) | 4 / 26% | 4 / 26% | 3 / 20% | 4 / 26% |
| ing | (14) | 4 / 28% | 3 / 21% | 0 / 0% | 7 / 50% |
| 1 | (7) | 2 / 28% | 0 / 0% | 1 / 14% | 4 / 57% |
| 2 | (4) | 0 / 0% | 1 / 25% | 1 / 25% | 2 / 50% |
| Location | | | | | |
| | (31) | 9 / 29% | 5 / 16% | 4 / 12% | 13 / 41% |
| | (9) | 1 / 11% | 3 / 33% | 1 / 11% | 4 / 44% |

Question V_D How Would You Describe Yourself As A Learner

| | Entries | Proactive | Use Learning Opportunities | In Terms of Headings | Other |
|--------------|---------|-----------|-------------------------------|-------------------------|----------|
| Entries | (41) | 11 / 26% | 8 / 19% | 9 / 21% | 14 / 34% |
| Group | | | | | |
| pecified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| 25 | (1) | 0 / 0% | 1 / 100% | 0 / 0% | 0 / 0% |
| 35 | (16) | 3 / 18% | 4 / 25% | 4 / 25% | 6 / 37% |
| 45 | (12) | 5 / 41% | 2 / 16% | 1 / 8% | 4 / 33% |
| 50 | (7) | 3 / 42% | 0 / 0% | 2 / 28% | 2 / 28% |
| 50 | (5) | 0 / 0% | 1 / 20% | 2 / 40% | 2 / 40% |
| aff Category | | | | | |
| | (17) | 3 / 17% | 5 / 29% | 1 / 5% | 8 / 47% |
| ng | (12) | 5 / 41% | 2 / 16% | 4 / 33% | 2 / 16% |
| | (8) | 2 / 25% | 1 / 12% | 3 / 37% | 2 / 25% |
| | (4) | 1 / 25% | 0 / 0% | 1 / 25% | 2 / 50% |
| ocation | | | | | |
| | (32) | 9 / 28% | 7 / 21% | 7 / 21% | 10 / 31% |
| | (9) | 2 / 22% | 1 / 11% | 2 / 22% | 4 / 44% |

Question V_E How Would You Improve Your Ability to Learn

| | Entries | Change in Pers. Style | Use LOS Better | Off Job Training | Other |
|----------------|---------|--------------------------|-------------------|---------------------|----------|
| Entries | (37) | 17 / 45% | 10 / 27% | 7 / 18% | 9 / 24% |
| Age Group | | | | | |
| Specified | (0) | 0 / ***% | 0 / ***% | 0 / ***% | 0 / ***% |
| er 25 | (1) | 1 / 100% | 0 / 0% | 0 / 0% | 0 / 0% |
| - 35 | (15) | 6 / 40% | 6 / 40% | 2 / 13% | 3 / 20% |
| - 45 | (12) | 5 / 41% | 2 / 16% | 3 / 25% | 3 / 25% |
| - 50 | (6) | 3 / 50% | 2 / 33% | 2 / 33% | 2 / 33% |
| ve 50 | (3) | 2 / 66% | 0 / 0% | 0 / 0% | 1 / 33% |
| Staff Category | | | | | |
| in | (15) | 9 / 60% | 4 / 26% | 1 / 6% | 2 / 13% |
| sing | (13) | 4 / 30% | 1 / 7% | 4 / 30% | 7 / 53% |
| 1 | (6) | 2 / 33% | 4 / 66% | 1 / 16% | 0 / 0% |
| 2 | (3) | 2 / 66% | 1 / 33% | 1 / 33% | 0 / 0% |
| Location | | | | | |
| | (28) | 12 / 42% | 7 / 25% | 5 / 17% | 7 / 25% |
| | (9) | 5 / 55% | 3 / 33% | 2 / 22% | 2 / 22% |

Learning through Work Experience: An Introduction

1. A research project examining the extent to which managers in the National Health Service (NHS) learn through and from their own employment work. **The** project is concerned with identifying what learning takes place, what factors in the environment influence that learning and how the learning is related to performance improvement.
2. The research starts from the hypothesis of Professor Alan Mumford concerning "natural" and "opportunistic" learning. It seeks to test out key principles expounded by Mumford in explanation of his hypothesis. The aim of the research is to say to what extent, if at all, Mumford's views hold good in an NHS context. Not only to test out the hypothesis but also to elaborate and refine its practical application by pinpointing the variables which are integral to its efficacy.
3. A questionnaire has been designed to collect information in relation to a number of key aspects of the Mumford hypothesis. It has been tested out with a small sample of 5 as part of Phase I of the research. Subsequently revised, it is now to be used with a group of some 60 NHS managers within discrete levels of middle-management employed by several District Health Authorities.
4. The questionnaire is used to collect data albeit subjectively about how people learn at work. It will be followed up by an interview to explore further details of individual perception about learning at work.
5. Materials from completed questionnaires will be analysed to determine what conclusions may be reached. It is hoped that there may be sufficient outcome of the research to assist with management development programmes and their preparation: There will also be opportunities for application in the areas of self development, open learning and perhaps organisation development.

Learning through Work Experience: The Questionnaire

1. This questionnaire is designed to collect data in relation to this research.
2. Your co-operation is kindly requested in completing it.
3. The questions are broadly based to collect opinions on the way managers learn at work rather than by attending courses, conferences or study days away from work.
4. The questions may seem rather subjective and you may have difficulty in answering some of them. Please answer, however, as best as you can, perhaps indicating if you feel it to be appropriate, how you have interpreted the question.
5. The questionnaire will be completed by 50 - 60 managers from various sections and departments of the Health Service in several Health Districts mostly in the South West Thames Region. The sample will be of managers from a range of disciplines. It is possible that a consolidating sample drawn from one staff category will be examined at a later stage in greater detail.

6. Once I have explained the questionnaire to you, together with documents about Learning Styles, I will leave you to complete the entries (in pencil, if you prefer) when convenient. Next I will come to see you at a time and date to suit you to collect the completed questionnaire and also explain and clarify anything at all you have found difficult or are not sure about. Please keep a copy for yourself to use for reference later on.
7. When I have read your completed entries I may wish to telephone you if there is any need to clarify what you have written. In some cases we may both wish to meet again to elaborate some of your responses.

The results of the research may be used by the Personnel Department as a basis for job-related training or for management self development. For this purpose there would be no specific reference to any one individual or to the nature of an individual's response.

8. Any published material would be generally related to research findings and not to a specific individual. There would be no identification of the Health Authority or to a named unit within that Authority. Each person helping with the research will receive a summary of the results for interest and general feedback.
9. I would like to thank you in advance for agreeing to help with this research and will do all I can, for ~~my~~ part, to help with explanation of further information should you wish it.

MIKE SAUNDERS
Senior Lecturer
Management Studies Department
South West London College

01-677-8141 Ext. 235

MS/DR

Explanatory note to accompany the questionnaire

There are many definitions of and schools of thought concerning what 'learning' is. For the purpose of completing the questionnaire I suggest you use Mumford's definitions.*

A manager has learned if either or both of the following applies:

He/she knows something not known before and can show that he/she knows it.

He/she is able to do something that he/she was not able to do before.

*Mumford, A. Making Experience Pay - management success through effective learning Gower 1980 p61.

When actual performance is different from required or standard performance there is a performance 'gap'. Improvements in learning ability and an increase of knowledge and skill once identified may represent the learning need. Realistically there may be many other relevant factors causing the 'gap' - ability, environment, resources, motivation, etc.

-1-

Learning through Work Experience

Code No _____

Questionnaire

Please complete this questionnaire as fully as you can.

I will contact you on _____ to see if you would like any help and to arrange to collect the completed questionnaire. I may wish to arrange at that time for a short follow-up interview when convenient to you.

Your job title _____

Your grade or scale (if appropriate) _____

Your function, speciality or specialist area _____

Your place of work _____

Your educational, professional
or technical qualifications _____

Personal details, please tick appropriate box

Your sex Male ☐ Female ☐

Your age

Under 25 ☐ 25-35 ☐ 35-45 ☐ 45-50 ☐ above 50 ☐

Learning Through Work Experience

Questionnaire

I. Learning Needs

Learning needs represent new skills, knowledge, insights, ideas, attitudes you would like to acquire or other people, think you should acquire.

Learning is concerned with behaviour change. We may recognise learning as having taken place when new behaviour is demonstrated.

A simple description says that you have learned when you know something you didn't know before and can show it and/or you can do something you couldn't do before.

The difference between the level at which a person is actually performing and the level at which they should be performing is often called the performance discrepancy or gap. Since the gap can be caused by a number of variables, lack of motivation, poor management, lack of resources as well as lack of skill or knowledge it should not follow that once we have identified the gap we have identified the learning needs.

- (a) List 3 important tasks, aspects or activities of your job e.g. ones which are critical to success in the job overall, or perhaps present the greatest complexity or take up proportionately the greatest time. Task can be general or specific, examples might include writing a report, introducing a new procedure, running a meeting.

(i) _____

(ii) _____

(iii) _____

- (b) Do you have standards of success, targets or performance measures for any or all of the above? Yes No
If Yes, how are these expressed in relation to the tasks identified?

(i) _____

(ii) _____

(iii) _____

- (c) If no, how do you know you are making progress in the three areas or tasks or activities you have identified?

(i) _____

(ii) _____

(iii) _____

- (d) What are your views on who should decide performance standards?
e.g. boss alone, boss in association with you, you alone then negotiated with boss.

- (e) Do you think it is important to make performance standards explicit?
What is the reason for your answer?

YES

NO

Please tick

- (f) To what extent are you aware of your actual performance against required or stipulated performance in the three aspects identified?

(i) _____ completely _____ to a large extent _____

a little _____ not at all _____

(ii) _____ completely _____ to a large extent _____

a little _____ not at all _____

(iii) _____ completely _____ to a large extent _____

- (g) Comparing, albeit subjectively, what you actually achieve against what you imagine or know you should achieve to what extent does this enable you to identify your own learning needs?

(i) _____ completely _____ to a large extent _____

a little _____ not at all _____

(ii) _____ completely _____ to a large extent _____

a little _____ not at all _____

(iii) _____ completely _____ to a large extent _____

a little _____ not at all _____

- (h) Do you consciously identify your learning needs at work?

not at all _____ a little _____ a lot _____ thoroughly _____

- (i) If you try to become aware of your learning needs which of the following methods are relevant to you. Rank each in order of relevance on a 1-5 scale, 1 highly relevant 5 little relevance. Note that each item should be considered separately from rather than in relation to the others;

get feedback by asking others e.g. boss _____

read books about job or profession _____

reflect on things which go wrong _____

get ideas from discussion with colleagues _____

others (please specify) e.g. feedback from colleagues outside work _____

- (j) What do you perceive your learning needs to be (if applicable)?
Give 3 examples of it if you can.

(i) _____

(ii) _____

(iii) _____

II. Human and Organisational Environment

- (a) Give the job title(s) of the person(s) to whom you report and/or would consider to be your managerial superior or 'boss'.

- (if applicable) Give the job title of any other person with whom you a functional, rather than a line, relationship.

NOTE : If you have an organisational relationship e.g. functional with someone other than the person you would consider to be your managerial superior, please attach a separately set of answers to II (b) - II (f).

- (b) Think of two or three occasions in the last couple of weeks or so when you have had some discussion with your boss for a period of more than five minutes. Did these occasions, individually or collectively, provide you with learning opportunities (which you may or may not have used)?

a good deal _____ some _____ hardly any _____ not at all _____

- (c) Assuming these situations provided potential for learning was this process actively helped by the boss in some positive recognisable way?

a good deal _____ some _____ hardly any _____ not at all _____

- (d) Unless you ticked 'not at all' describe a sample of what took place and why you have interpreted this as you have done in order to reach your conclusion.

- (e) Looking generally at your working relationship with your boss and what happens in your normal day-to-day encounters, in terms of your own learning, to what extent do you see.
- (i) your boss as a provider & organiser of learning eg sending you on courses a good deal ____ some ____ hardly any ____ not ____
- (ii) your boss as part of the learning environment eg as a source of inspiration or ideas a good deal ____ some ____ hardly any ____ not ____
- (iii) your boss as monitor of learning achievement ie checking & reviewing your learning a good deal ____ some ____ hardly any ____ not ____
- (iv) your boss as provider of feedback ie telling you how you are doing a good deal ____ some ____ hardly any ____ not ____
- (v) your boss as model ie one whom you might copy a good deal ____ some ____ hardly any ____ not ____
- (vi) your boss as coach ie sitting down and teaching you a good deal ____ some ____ hardly any ____ not ____
- (vii) your boss as risk sharer ie sharing the outcome if things go wrong a good deal ____ some ____ hardly any ____ not ____
- (viii) your boss as mentor* ie experienced & trusted adviser* a good deal ____ some ____ hardly any ____ not ____
- (ix) your boss as aid to learning ie generally being helpful to you in your learning a good deal ____ some ____ hardly any ____ not ____

Please add here any personal comments you have on the reasons for your judgement being as specific as you can - referring in each case to the section above (i) - (ix).

- (f) To what extent if you need help with some aspect of your work and the help is concerned with your own lack of skill or knowledge do you seek opportunities to enlist the support and involvement of your boss

nearly always? _____ often? _____ occasionally? _____ rarely? _____

If your boss is unavailable or unhelpful, which of the following statements best describes your subsequent behaviour (focus on the events of the last two or three weeks if it helps you)

struggle on as best you can _____

ask someone else _____

'nail' him/her down _____

link your problem to another when you do meet _____

ignore what you are 'stuck' on and do something else _____

try subtle means to gain boss' attention _____

other (Please specify) _____

- (g) Give the job titles of up to five colleagues (i.e. those of approximately the same managerial level as yourself) with whom you have frequent contact.

Colleague 'A' _____

Colleague 'B' _____

Colleague 'C' _____

Colleague 'D' _____

Colleague 'E' _____

Weight on a 1-5 scale, 1 most important 5 least important, the roles you see each of these colleagues taking in helping you with your own learning.

Assess each colleague separately not in relation to each other

as feedback provider ☐ as model ☐ as coach ☐ as risks-share ☐

- (g) Colleague 'A'
(cont.) Colleague 'B'
Colleague 'C'
Colleague 'D'
Colleague 'E'

Taking each of these in turn to what extent do you 'learn' from your work contacts with those concerned i.e. the extent to which you acquire knowledge, new insights, ideas, etc.

| | hardly at all | sometimes | a good deal | substantially |
|---------------|---------------|-----------|-------------|---------------|
| Colleague 'A' | " | " | " | " |
| Colleague 'B' | " | " | " | " |
| Colleague 'C' | " | " | " | " |
| Colleague 'D' | " | " | " | " |
| Colleague 'E' | " | " | " | " |

- (h) Please comment if you wish on the value to you of any particular colleague in assisting with your learning and development. _____

- (i) To what extent is the type of work you do and where you do it conducive to your learning? Please think carefully before answering the question from the viewpoint of your immediate department and the larger unit of which it is a part e.g. a hospital.

Work is conducive

Not at all ____ a little ____ quite conducive ____ very conducive ____

Department is conducive

Not at all ____ a little ____ quite conducive ____ very conducive ____

Organisation i.e. unit is conducive

Not at all ____ a little ____ quite conducive ____ very conducive ____

What are the reasons for your judgement in each case?

Work _____

(i) Department _____
(cont.) _____

Unit _____

- (j) Place the following in order of relevance, 1 most relevant 5 least relevant, to you in terms of the extent to which the item promotes your learning at work. Again assess each item separately not in relation to each other.

Clear objectives and Policies _____

Rapid rate of technical/managerial/organisational change _____

Pace of work _____

Innovative nature of work _____

Varied activities inherent in job _____

- (k) Do you feel that from a policy viewpoint, your employer encourages you to learn more and to develop yourself

Explicitly i.e. active and open encouragement? hardly at all _____

Some _____ a lot _____

implicitly i.e. assumed but not expressed? hardly at all _____

some _____ a lot _____

- (l) Looking outside your work role and its environment to what extent do factors within your private life encourage you to promote your own learning at work?

hardly at all _____ a little _____ quite a lot _____ substantially _____

What sort of factors had you in mind when making your judgement in answer to this question?

III. Learning Opportunities

- (a) Learning opportunities occur at work as well as on training courses. What opportunities for learning do you see (which you may or may not wholly or partly make use of) in the routine course of your work?

- (b) Give an example of a learning opportunity you have consciously taken advantage of at work other than attending a course.

- (c) Assess the following learning opportunities in terms of relevance to your own learning in your own job giving specific examples wherever you can use a 1-5 scale, 1 high relevance 5 little relevance and consider each item separately rather than in relation to the others.

At work, where the task is the main focus and learning is subsidiary

Unplanned learning here means learning which seems to happen by chance as daily work. Planned learning means taking a conscious decision to avail oneself of a learning opportunity.

Unplanned learning through current job _____

Planned created learning with current job responsibilities _____

Planned created learning by adding to current job responsibilities _____

Planned created learning by special assignments _____

Planned created learning by experience outside work _____

Planned created learning from the boss or colleague _____

Away from work, where the learning is the main focus

courses, seminars and workshops _____

reading _____

other non-work experience _____

- (d)

Learning, as we defined it, means knowing something not known before and being able to show it and/or being able to do something one was not able to do before. Think of your most powerful learning experience which happened recently while at work e.g. handling an unexpected crisis successfully. What was the learning (in broad terms)?

(d)
(cont.)

(e) What prevents you making use of learning opportunities when they occur at work? (Please tick, if applicable)

attitude of others e.g. refusal to share information, space, time

pressure of other work

problems of communication

failure of others to recognise your needs

failure by yourself to recognise the opportunity when it occurred

other reasons (please specify) _____

IV. Management of Learning

One school of thought says that a manager's job depends on the demands placed on the manager, the constraints on possible courses of action or the use of resources and the resultant choices available for the exercise of discretion.

(a) Think of an example of a single task, or an area of work, or part of your general responsibility (an example might be completing appraisal interviews of 3 of your junior staff) and describe it in terms of the demands placed on you:

(i) by your boss _____

(ii) by a colleague _____

(iii) by a subordinate _____

(iv) by consumers/clients/patients _____

With the example of this task describe the constraints which govern your response:

- (i) to task area affected by demands of boss _____

 - (ii) to task area affected by demands of colleague _____

 - (iii) to task area affected by demands of subordinate _____

 - (iv) to task area affected by demands of consumers/clients/patients

- (b) With examples, describe some of the choices potentially available to you for taking action i.e. carrying out the task in response to the demands within the boundaries set by the constraints:

It is possible that learning and managing are complementary and similar processes in principle. While managing within and by a framework of demands, constraints and choices ~~there~~ may be learning opportunities which you consciously or unconsciously make use of.

- (c) How do you actually use the choices (described above) - to develop your learning?:

How might you use the choices to develop your learning?:

- (e) Rate your present competence as an effective manager in terms of the following routine activities. Rate each item separately from rather than in relation to the rest. (1 high level of competence, 5 low level of competence). Think of a specific example or part of your work if it helps:

collecting data _____

setting objectives _____

defining standards of performance _____

planning activities _____

translating plans to action _____

monitoring results _____

reviewing results _____

deciding what additional action is necessary _____

Consider 2 or 3 other characteristics which in your mind determine the 'effective manager'. Say what they are and rate your competence in those characteristics. Use the 1-5 scale given above.

- (f) Rate your present competence as a learning manager in terms of the following general abilities. Use the 1 high, 5 low, scale given above.

establish effectiveness criteria for myself _____

identify my own learning needs _____

plan my own learning _____

take advantage of learning opportunities _____

listen to others _____

accept help _____

analyse what successful performers do _____

know my own capabilities _____

share information with others _____

review what has been learned _____

Learning Styles

(a) What did you score on the Learning Styles Inventory (LSI)?

CE _____ RO _____ AC _____ AE _____

(b) What did you score on the Learning Styles Questionnaire (LSQ)?

Pragmatist _____ Reflector _____ Theorist _____ Activist _____

(c) Do you think your score on the tests accurately reflects your characteristic way of learning (please tick):

exactly _____ for the most part _____ in some important aspects _____

partly _____ not at all _____

What are the reasons for this conclusion?

(d) Having worked through the tests how would you describe yourself as a learner?:

(e) If you wanted to improve your ability to learn and also to extend your learning style how would you go about it?:

Again, many thanks for your help.

APPENDIX 4: NUMBERS OF STAFF BY POPULATION AND SAMPLE

| | Health District A | | Health District B | | Health District C | | Region |
|---------------------------------------|-------------------|--------|-------------------|--------|-------------------|--------|--------|
| | Total | Sample | Total | Sample | Total | Sample | Total |
| A & C Scales (GA and above) | 222 | 0 | 140 | 9 | 120 | 3 | 1808 |
| N & M (Senior Nurse and above) | 140 | 6 | 114 | 6 | 113 | 8 | 1163 |
| N & M (Ward Sister or equivalent) | 449 | - | 488 | - | 406 | 2 | 4458 |
| P & T (all categories) | 606 | 2 | 521 | 5 | 426 | 6 | 4610 |
| Works staff | 30 | | 19 | | 25 | | 314 |
| Supt. Radiographer (all grades) | 13 | | 8 | | 6 | | 59 |
| Supt. Physiotherapist (all grades) | 8 | | 8 | | 6 | | 72 |

1. Staff in post are whole time equivalents as at 13/12/87
2. A & C Administrative and Clerical
N & M Nursing and Midwifery
P & T Professional and Technical

Learning Style Inventory (Kolb)Instructions

There are nine sets of four words listed below. Rank order the words in each set by assigning a 4 to the word which best characterizes your learning style, a 3 to the word which next best characterizes your learning style, a 2 to the next most characteristic word and a 1 to the word which is least characteristic of you as a learner.

You may find it hard to choose the words that best characterize your learning style. Nevertheless keep in mind that there are no right or wrong answers - all the choices are equally acceptable. The aim of the inventory is to describe how you learn, not to evaluate your learning ability.

Be sure to assign a different rank number to each of the four words in each set, do not make ties..

| | | | | | | | | |
|---|---|------------------|---|-------------|---|-------------------|---|-----------------|
| 1 | - | discriminating | - | tentative | - | involved | - | practical |
| 2 | - | receptive | - | relevant | - | analytical | - | impartial |
| 3 | - | feeling | - | watching | - | thinking | - | doing |
| 4 | - | accepting | - | risk-taker | - | evaluative | - | aware |
| 5 | - | intuitive | - | productive | - | logical | - | questioning |
| 6 | - | abstract | - | observing | - | concrete | - | active |
| 7 | - | present-oriented | - | reflecting | - | future-oriented | - | pragmatic |
| 8 | - | experience | - | observation | - | conceptualization | - | experimentation |
| 9 | - | intense | - | reserved | - | rational | - | responsible |

Scoring

The four columns of words above correspond to the four learning style scales: CE, RO, AC and AE. To compute your scale scores, write your rank numbers in the boxes below only for the designated items. For example in the third column (AC) you would fill in the rank numbers you have assigned to items 2, 3, 4, 5, 8 and 9. Compute your scale scores by adding the rank numbers for each set of boxes.

| Score items | Score items | Score items | Score items |
|----------------------|----------------------|----------------------|----------------------|
| 2 3 4 5 7 8 | 2 3 6 7 8 9 | 2 3 4 5 8 9 | 1 3 6 7 8 9 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
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| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| CE = _____ | RO = _____ | AC = _____ | AE = _____ |

To compute the two combination scores subtract CE from AC and subtract RO from AE. Preserve negative signs if they occur.

LEARNING STYLES QUESTIONNAIRE

This questionnaire is designed to find out your preferred learning style(s). Over the years you have probably developed learning 'habits' that help you benefit more from some experiences than from others. Since you are probably unaware of this, this questionnaire will help you pinpoint your learning preferences so that you are in a better position to select learning experiences that suit your style.

There is no time limit to this questionnaire. It will probably take you 10-15 minutes. The accuracy of the results depends on how honest you can be. There are no right or wrong answers. If you agree more than you disagree with a statement put a tick by it (✓). If you disagree more than you agree put a cross by it (×). Be sure to mark each item with either a tick or cross.

- ☐ 1. I have strong beliefs about what is right and wrong, good and bad.
- ☐ 2. I often 'throw caution to the winds'.
- ☐ 3. I tend to solve problems using a step-by-step approach, avoiding any 'flights-of-fancy'.
- ☐ 4. I believe that formal procedures and policies cramp people's style.
- ☐ 5. I have a reputation for having a no-nonsense, 'call a spade a spade' style.
- ☐ 6. I often find that actions based on 'gut feel' are as sound as those based on careful thought and analysis.
- ☐ 7. I like to do the sort of work where I have time to 'leave no stone unturned'.
- ☐ 8. I regularly question people about their basic assumptions.
- ☐ 9. What matters most is whether something works in practice.
- ☐ 10. I actively seek out new experiences.
- ☐ 11. When I hear about a new idea or approach I immediately start working out how to apply it in practice.
- ☐ 12. I am keen on self discipline such as watching my diet, taking regular exercise, sticking to a fixed routine, etc.
- ☐ 13. I take pride in doing a thorough job.
- ☐ 14. I get on best with logical, analytical people and less well with spontaneous, 'irrational' people.
- ☐ 15. I take care over the interpretation of data available to me and avoid jumping to conclusions.
- ☐ 16. I like to reach a decision carefully after weighing up many alternatives.
- ☐ 17. I'm attracted more to novel, unusual ideas than to practical ones.
- ☐ 18. I don't like 'loose-ends' and prefer to fit things into a coherent pattern.
- ☐ 19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
- ☐ 20. I like to relate my actions to a general principle.
- ☐ 21. In discussions I like to get straight to the point.
- ☐ 22. I tend to have distant, rather formal relationships with people at work.
- ☐ 23. I thrive on the challenge of tackling something new and different.
- ☐ 24. I enjoy fun-loving, spontaneous people.
- ☐ 25. I pay meticulous attention to detail before coming to a conclusion.
- ☐ 26. I find it difficult to come up with wild, off-the-top-of-the-head ideas.
- ☐ 27. I don't believe in wasting time by 'beating around the bush'.
- ☐ 28. I am careful not to jump to conclusions too quickly.

- ☐ 29. I prefer to have as many sources of information as possible – the more data to mull over the better.
- ☐ 30. Flippant people who don't take things seriously enough usually irritate me.
- ☐ 31. I listen to other people's point of view before putting my own forward.
- ☐ 32. I tend to be open about how I'm feeling.
- ☐ 33. In discussions I enjoy watching the manoeuvrings of the other participants.
- ☐ 34. I prefer to respond to events on a spontaneous, flexible basis rather than plan things out in advance.
- ☐ 35. I tend to be attracted to techniques such as network analysis, flow charts, branching programmes, contingency planning, etc.
- ☐ 36. It worries me if I have to rush out a piece of work to meet a tight deadline.
- ☐ 37. I tend to judge people's ideas on their practical merits.
- ☐ 38. Quiet, thoughtful people tend to make me feel uneasy.
- ☐ 39. I often get irritated by people who want to rush headlong into things.
- ☐ 40. It is more important to enjoy the present moment than to think about the past or future.
- ☐ 41. I think that decisions based on a thorough analysis of all the information are sounder than those based on intuition.
- ☐ 42. I tend to be a perfectionist.
- ☐ 43. In discussions I usually pitch in with lots of off-the-top-of-the-head ideas.
- ☐ 44. In meetings I put forward practical realistic ideas.
- ☐ 45. More often than not, rules are there to be broken.
- ☐ 46. I prefer to stand back from a situation and consider all the perspectives.
- ☐ 47. I can often see inconsistencies and weaknesses in other people's arguments.
- ☐ 48. On balance I talk more than I listen.
- ☐ 49. I can often see better, more practical ways to get things done.
- ☐ 50. I think written reports should be short, punchy and to the point.
- ☐ 51. I believe that rational, logical thinking should win the day.
- ☐ 52. I tend to discuss specific things with people rather than engaging in 'small talk'.
- ☐ 53. I like people who have both feet firmly on the ground.
- ☐ 54. In discussions I get impatient with irrelevancies and 'red herrings'.
- ☐ 55. If I have a report to write I tend to produce lots of drafts before settling on the final version.
- ☐ 56. I am keen to try things out to see if they work in practice.
- ☐ 57. I am keen to reach answers via a logical approach.
- ☐ 58. I enjoy being the one that talks a lot.
- ☐ 59. In discussions I often find I am the realist, keeping people to the point and avoiding 'cloud nine' speculations.
- ☐ 60. I like to ponder many alternatives before making up my mind.
- ☐ 61. In discussions with people I often find I am the most dispassionate and objective.
- ☐ 62. In discussions I'm more likely to adopt a 'low profile' than to take the lead and do most of the talking.
- ☐ 63. I like to be able to relate current actions to a longer term bigger picture.

- ☐ 64. When things go wrong I am happy to shrug it off and 'put it down to experience'.
- ☐ 65. I tend to reject wild, off-the-top-off-the-head ideas as being impractical.
- ☐ 66. It's best to 'look before you leap'.
- ☐ 67. On balance I do the listening rather than the talking.
- ☐ 68. I tend to be tough on people who find it difficult to adopt a logical approach.
- ☐ 69. Most times I believe the end justifies the means.
- ☐ 70. I don't mind hurting people's feelings so long as the job gets done.
- ☐ 71. I find the formality of having specific objectives and plans stifling.
- ☐ 72. I'm usually the 'life and soul' of the party.
- ☐ 73. I do whatever is expedient to get the job done.
- ☐ 74. I quickly get bored with methodical, detailed work.
- ☐ 75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
- ☐ 76. I'm always interested to find out what other people think.
- ☐ 77. I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
- ☐ 78. I steer clear of subjective or ambiguous topics.
- ☐ 79. I enjoy the drama and excitement of a crisis situation.
- ☐ 80. People often find me insensitive to their feelings.

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LEARNING STYLES QUESTIONNAIRE – SCORING

You score one point for each item you ticked (✓). There are no points for items you crossed (X).

Simply indicate on the lists below which items were ticked.

| | | | |
|----|----|----|----|
| 2 | 7 | 1 | 5 |
| 4 | 13 | 3 | 9 |
| 6 | 15 | 8 | 11 |
| 10 | 16 | 12 | 19 |
| 17 | 25 | 14 | 21 |
| 23 | 28 | 18 | 27 |
| 24 | 29 | 20 | 35 |
| 32 | 31 | 22 | 37 |
| 34 | 33 | 26 | 44 |
| 38 | 36 | 30 | 49 |
| 40 | 39 | 42 | 50 |
| 43 | 41 | 47 | 53 |
| 45 | 46 | 51 | 54 |
| 48 | 52 | 57 | 56 |
| 58 | 55 | 61 | 59 |
| 64 | 60 | 63 | 65 |
| 71 | 62 | 68 | 69 |
| 72 | 66 | 75 | 70 |
| 74 | 67 | 77 | 73 |
| 79 | 76 | 78 | 80 |

Totals

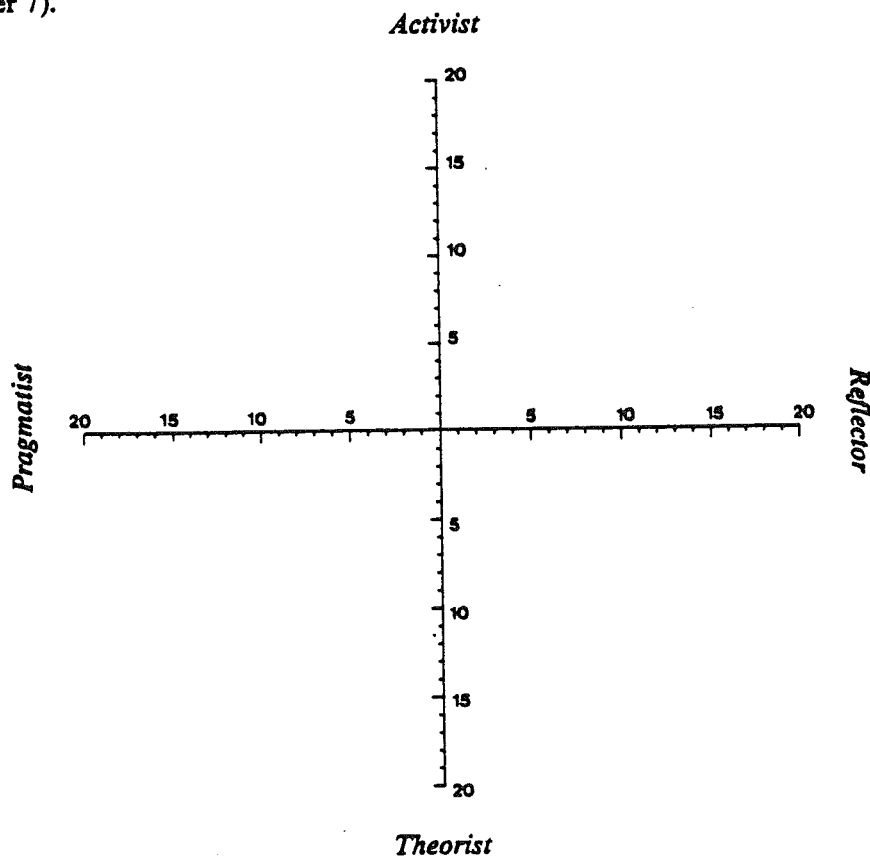
Activist

Reflector

Theorist

Pragmatist

Plot the scores on the arms of the cross below and apply the appropriate norms from the Manual (Chapter 7).



LEARNING STYLES – GENERAL DESCRIPTIONS

ACTIVISTS

Activists involve themselves fully and without bias in new experiences. They enjoy the here and now and are happy to be dominated by immediate experiences. They are open-minded, not sceptical, and this tends to make them enthusiastic about anything new. Their philosophy is: 'I'll try anything once'. They dash in where angels fear to tread. They tend to throw caution to the wind. Their days are filled with activity. They revel in short term crisis fire fighting. They tackle problems by brainstorming. As soon as the excitement from one activity has died down they are busy looking for the next. They tend to thrive on the challenge of new experiences but are bored with implementation and longer term consolidation. They are gregarious people constantly involving themselves with others but, in doing so, they hog the limelight. They are the life and soul of the party and seek to centre all activities around themselves.

REFLECTORS

Reflectors like to stand back to ponder experiences and observe them from many different perspectives. They collect data, both first hand and from others, and prefer to chew it over thoroughly before coming to any conclusion. The thorough collection and analysis of data about experiences and events is what counts so they tend to postpone reaching definitive conclusions for as long as possible. Their philosophy is to be cautious, to leave no stone unturned. 'Look before you leap'; 'Sleep on it'. They are thoughtful people who like to consider all possible angles and implications before making a move. They prefer to take a back seat in meetings and discussions. They enjoy observing other people in action. They listen to others and get the drift of the discussion before making their own points. They tend to adopt a low profile and have a slightly distant, tolerant, unruffled air about them. When they act it is as part of a wide picture which includes the past as well as the present and others' observations as well as their own.

THEORISTS

Theorists adapt and integrate observations into complex but logically sound theories. They think problems through in a vertical, step by step logical way. They assimilate disparate facts into coherent theories. They tend to be perfectionists who won't rest easy until things are tidy and fit into their rational scheme. They like to analyse and synthesise. They are keen on basic assumptions, principles, theories models and systems thinking. Their philosophy prizes rationality and logic. 'If it's logical it's good'. Questions they frequently ask are: "Does it make sense?" "How does this fit with that?" "What are the basic assumptions?" They tend to be detached, analytical and dedicated to rational objectivity rather than anything subjective or ambiguous. Their approach to problems is consistently logical. This is their 'mental set' and they rigidly reject anything that doesn't fit with it. They prefer to maximise certainty and feel uncomfortable with subjective judgements, lateral thinking and anything flippant.

PRAGMATISTS

Pragmatists are keen on trying out ideas, theories and techniques to see if they work in practice. They positively search out new ideas and take the first opportunity to experiment with applications. They are the sort of people who return from management courses brimming with new ideas that they want to try out in practice. They like to get on with things and act quickly and confidently on ideas that attract them. They don't like 'beating around the bush' and tend to be impatient with ruminating and open-ended discussions. They are essentially practical, down to earth people who like making practical decisions and solving problems. They respond to problems and opportunities 'as a challenge'. Their philosophy is: 'There is always a better way' and 'If it *works* it's good'.

APPENDIX 7: DERIVATION OF QUESTIONNAIRE DESIGN FROM MUMFORD'S THESIS AS PUBLISHED

Ref A Emphasis on the Learner: A new approach I & CT
Nov.1983

Ref B What did you learn today? P.M. August 1981

Ref C Making Experience Pay. McGraw Hill 1980

1. (Ref A) this would be the situation after intervention
not as it exists at present.

Questn. If we help someone to understand and make effective
Ref. use of his preferred learning style, and show him
how to deploy those skills in learning situations
(I) involving reality then we increase the feasibility
of him continuing to learn after a structured
learning experience.

| | | |
|----------|--------------------|----------------|
| | Individual learner | dynamic change |
| FOCUS on | learning process | in feasibility |
| | reality | of continuous |
| | | learning. |

The point to be tested could be whether managers are
already learning because they are in situations of
reality, a point proved by comparing situations of
reality and unreality and seeing what has been learned.

2. Environmental influences on the manager's learning
(Ref C, P4)

(II) Apart from any direct contribution, the boss is, of
course, likely to be the most important component
both of the general climate about the desirability
of learning, and of the specific environment,
rewarding or punishing a manager for applying new
skills or knowledge

Ask about who is boss, when seen, for what purpose,
used as coach, what knowledge provided, role (tick as
appropriate), time spent (pg.4 has list of attributes
of bosses who are good conscious developers).

Problem of defining good boss behaviour in NHS terms
and in terms appropriate to situation, job,
profession or function. Also the boss as a negative
or positive influence on both doing the job and
learning while doing it.

3. Colleagues, including subordinates, can provide a
positive environment for learning (Ref C, p5)

Check out the role set, series of questions based on
each role relationship.

4. The structure of systems and objectives of the organisation in which the manager works influences his learning patterns because the nature of the organisation is one of the things which determines what a manager needs to be able to do effectively and therefore what he needs to learn (Ref p6)

Would be difficult to pick up, would need to define 'systems' and 'objectives'. Could ask what are the objectives implicit/explicit? What expectations does the organisation have of manager to develop own learning - What does he have to go by when that is new and what is the process by which he has to cope, develop, acquire, learn.

The climate encourages managers in learning when it is recognised that organisational objectives will be more effectively met if managers are helped to learn (Ref C p8) ... when the critical mass of managers takes learning seriously, a climate has been created (Ref C p9)

Organise decision making processes, who deals with whom for what. Who has power may need probing, it affects what rather than how a manager learns.

Ask about who decides what, where information comes from etc., informal/formal systems.

Changing environment, increasing influence of lateral as opposed to vertical relationships. (Ref C, p10).
Matrix orgn - 2 equal bosses.

Power exerted by where knowledge is.

Changes lead to more, learning or learning needs to increase to cope with change.

5. Managers do not simply exist as individuals during working hours. Their lives during time away from work are largely unstudied yet are very important for at least some of them in influencing at least the wish to be, if not the practice of being, a learning manager (Ref C, p13).

Could this be looked at in terms of the wider role set - special section on questionnaire?

6. (Mintzberg) confirms that the job of managing does not accommodate or develop people who sit back and plan reflectively the job as normally practised demands and attracts people who are able to secure enough information for the purposes of immediate action, who adapt to quickly changing types of demands

on a variety of personal skills, and who are able to respond quickly to the pressures and conflicts of events, events which the manager has often neither planned nor forecast (Ref C, p29)

Can this be verified for NHS managers? It might be important to test out the idea that managers learn in the reality of the job. We start with environmental influences on a major predilection for learning boss, spouse, colleagues, friends then on the influence of the job its characteristics, nature and content. What sort of questions?

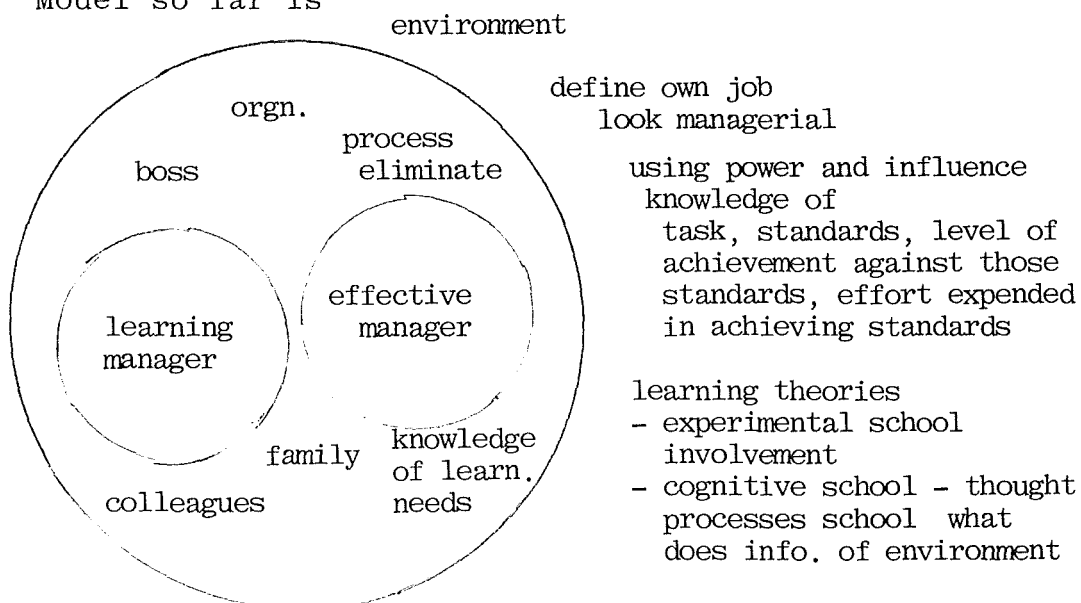
Do you plan consciously? How do you get the information. To what extent do you have to respond to events which are unplanned for? How long do you get to come back with a response?

7. If it is taken as axiomatic that it is the job of the manager to manage events, it ought to be a major preoccupation of the learning manager to manage himself and his time, rather than to allow others to do so (Ref C, p29) links with the concepts that the learning manager is the effective manager and vice versa.

Needs to be tested in terms of actual techniques, methods, devices used by the manager to manage his own time and the extent to which he plans, executes, reviews and reflects in what he does and achieves in this area.

8. A Manager to determine his learning needs must look at required task standards, level of achievement against these standards and effort expended in achieving standards (Ref C, p39)

Could be useful.
Model so far is



Could question

do you have task standards? how expressed? Who sets.
How do you perform against these ? How do you know?
What do you have to do to achieve these? indication
of input/effort - time, activity, etc.
List of questions Ref C, p40.

9. The concept of choice is a major positive feature for the manager who wants to learn how to be more effective because it assists him in the process of concentrating on those elements of the job which either he or the organisation will most benefit from, instead of simply responding to the pressures of the hour (Ref C, p44)

Would be based around Stewart's 3 categories of:

- demands - task element or situations imposed by colleagues, boss, subordinates, consumers
- constraints - limitations placed on a Manager's power to act
- choices - the ability to select how and when to undertake a task.

10. If needs have not been properly identified by the manager himself, he is unlikely to spot learning opportunities related to them (Ref C, p58)

Questions on how you identify your learning needs and respond to them.

11. The learner who is aware of his own learning processes and aware of the options open to him, is much more likely to be capable of directing his own learning instead of being subjected to direction by others (Ref C, p79)

Give Kolb LSI and Mumford and Honey LSQ

List opportunities, get examples.

12. For a variety of reasons, most subordinates do not ask their bosses for help and are not provided with occasions when they could do so comfortably. The self-directed learner seeks opportunities (Ref C, p89)

eg. When do you see your boss, what for, recent case and also same for own staff.

13. Skills involved in effective learning behaviour; the ability to establish effectiveness criteria for yourself, measure your own effectiveness, identify your own learning needs, plan personal learning, take

advantage of learning opportunities, review your own learning processes, listen to others, accept help, face unwelcome information, take risks and tolerate anxieties, analyse what other successful performers do, to know oneself, to share information with others, review what has been learned (Rec C, p87)

Could be covered by a series of questions (to tick) plus space to elaborate.

14. In many organisations, opportunities to learn are restricted less by the capacity of the manager to learn from a particular event than by the preconceptions, prejudice and ignorance of those responsible for managing learning opportunities (Ref C, p98)

What prevents you making use of learning opportunities once you have identified them?

15. Many opportunities for learning are not recognised or if recognised are badly used.

What opportunities for learning do you see? (linked to selected 5 areas of job)

16. Planned learning is more effective than accidental learning

17. Most opportunities occur in real work situations not through formal training events

18. Managers vary considerably in their ability to see the value of potential learning opportunities (Rec C, all p98)

Ask going examples from Mumford's Chap.6.
unplanned learning through current job
planned learning by adding to current job responsibilities
" " " special assignments
" " " experience outside work
" " " from boss or colleagues

Ask about examples, project work, new tasks.

19. The most rational best organised approach to learning involves processes exactly analagous to those a manager would hope to use on any other management process. He would collect data, set objectives; define standards of performance; plan activities; monitor achievement; review the reasons for deviation from standard; decide what additional action is necessary (Ref C, p.128)

The effective, successful manager is the learning manager. How to test? How to prove?

20. Role of boss as provider and organiser of learning; as part of the learning environment; as monitor of learning achievement; as provider of feedback; as model; as coach; as risk sharer; as mentor
(Ref C, pp.132-140)

Role of colleagues; providing feedback; as model; as coach and risk sharer (Ref C, pp.140-147). Test each item.

21. Off-job learning.

Obstacles to effective learning on courses include:

Lack of commitment on the part of the learner to the needs the course is intending to satisfy; lack of belief in a course, or this course as a means of meeting needs;

lack of credibility on the part of those running the course; disbelief in the possibility of changing performance after the course; lack of congruence between preferred learning style and the form of learning offered on the course; lack of contact between course contact and the manager's reality
(Ref C, p170)

Ask about courses based on questions relating to the above.

Summary

1. Awareness of learning style.
If a manager knows his LS and can use learning skills in real situations he will continue learning after courses. He must determine his learning needs by looking at standards and his achievements. If he knows his learning process and options open to him he is more likely to become a SDL. The SDL seeks out opportunities and uses a range of learning skills.
2. Human and organisation environment.
The boss, colleagues and other members of a role set play a part in promoting a manager's learning. So does organisation environment and climate.
3. Learning opportunities
Unless a manager knows his learning needs he will not spot learning opportunities. These are often not recognised by in fact are only limited by human prejudice etc. Opportunities occur through real work more than normal training. There are obstacles to learning on courses.

4. Management of learning.
Not in a proactive process in which manager exercises choice. Management and learning are similar processes in which self management applies to both learning and management.

LEARNING THROUGH WORK EXPERIENCE: AN INVESTIGATION INTO THE WAYS IN
WHICH UK MANAGERS LEARN AT WORK WITH SPECIAL REFERENCE TO THE
HEALTH SERVICE

1. The research was carried out in two phases. Phase I - the Pilot stage - with 5 interviewees, was based on Wandsworth Health District. Phase II the Main stage - was based on Wandsworth, Merton and Sutton, and Croydon Health Districts. First interviews were arranged over the period Winter 1986/Spring 1987. There was a degree of delay caused by staff turnover and new people needing to be briefed. By October 1987 all interviews were completed and questionnaires collected. The starting point sample was 55 with 52 complete returns. (1 left the District, 1 not returned, 1 unable to continue).
2. Results were analysed during the period Winter 1987/Spring 1988. Results are shown here under the 4 headings indicating the 4 parts of the questionnaire.

(i) Learning needs

Respondents had no difficulty in identifying tasks for learning needs analysis. There was some confusion between tasks and generalised activity. There were more problems however with performance standards. 10 people had no standards (explicit) for the three tasks as a whole some others said they had no explicit standards for at least one of the tasks. Many people who said they had recognised standards expressed these as feedback indicators (no complaints, expressed views of staff), observable events (number of accident forms), and subjective phenomena (clear desk at the end of the day). Some had targets and quantifiable means of assessing acceptable performance - but not many.

Of those who said they had no explicit standards or means of assessing their performance such things as "good relations" and "smooth running" indicated progress was being made. Thus it was difficult to see learning needs emerging with the performance discrepancy model where in many cases performance standards were not clearly known or expressed. However people were, broadly speaking, aware of their learning needs from a more empirical standpoint. Only 1 respondent submitted a nil return under this heading. Needs expressed were almost entirely knowledge - based or associated with new techniques or new developments affecting the Service eg. Körner Report on data collection and analysis. 'Computers' received 8 mentions, budgets and finance 12, negotiating skills 7, time management 5.

Significantly management skills and techniques gained a high profile reflected not only in "buzz" concepts such as time management, stress and managing change but also in employment law and personnel management. Overall, very little on personal self-awareness and self-development skills as a means of coping with changes within the Health Service affecting jobs and people.

(ii) Human and organisational development

This section has largely concerned with relationships at work and the environment of work and the influence of these factors on work-based learning. Practically (i) everyone had a 'boss', some had two. On the whole the 'boss' was seen as one who gives technical or professional information. The 'boss' also gives information about the job or the organisation from their own net of contacts. Some people saw their manager as one from whom a decision is obtained, or support gained or used to bounce off an idea. Only a very few saw their manager as a model or even as one who confronts and develops positively or negatively self-learning. The manager is not seen as helping learning if thwarting efforts or not supporting recommendations.

15 respondents saw the boss as 'not at all' helpful in their learning.

The boss was much more likely to be a "teller" (If I were you.....) than a facilitator.

Often the boss is younger, new, or with a different type of experience not always viewed positively. 7 people found their boss difficult to contact. Generally bosses are felt to be supportive but they are better as 'course providers' (5 mentions) than they are at informal development.

Most people agreed on the significance of the colleague relationship. Colleagues mentioned could be junior or senior to the respondent, but most were at the same level. Colleagues were particularly useful at giving technical help especially Personnel and Supplies. The former had 7 mentions. There were lots of examples of facilitating either consciously or as a result of talking to people and "two minds together".

The value of the environment as being conducive to learning rested on the significance of variety in job and situation; developments and change; and, demands of clients/consumers. There was much learning here in overcoming obstacles, facing challenges and problem-solving.

There were more learning opportunities in large departments than small or isolated ones. Pressure of work could be potentially conducive to learning except that it did not allow time to review and develop new behaviours.

(iii) Learning Opportunities

A wide range of situations was quoted including Industrial Relations in one form or another, an important area (together with Personnel). Significant learning opportunities were offered by attending meetings, taking part in projects and Working Parties and also making visits elsewhere within the Health Service. The family played a part the spouse being mentioned several times as aiding learning and providing a support framework for learning.

Powerful learning experiences seemed difficult to recall. Most seemed to be new problems and situations but also a few one off events such as attending a particular training programme or event. The problem here is likely to be one of recall and recognition than lack of such experiences. There were 7 references to grievance/disciplinary - handling situations and 2 to computers.

(iv) Management of Learning

To a slight extent the Rosemary Stewart model of demands, constraints and choices indicated some learning derived from risk-taking through deliberately exercising different courses of action. On the whole many people found this item difficult to handle conceptually and some more detailed analysis is needed to draw some conclusions.

Around half of the respondents agreed that the results of the two Learning Styles tests corresponded to their own perception of themselves. There were some uncertainties about how one could improve a personal learning style but some notable examples on better use of learning opportunities in the job and personal control of own development. Many people made suggestions to the list of qualities of the effective manager though less so to the effective learner. In general, it emerged that the manager as a learner rather than someone who is sent on courses was a new concept for many.

3. From this analysis the picture emerged that there are abundant learning opportunities within the Health Service which are available potentially to every manager. However many did not perceive these opportunities as learning situations or did not make full use of them. This seemed to be because of a lack of appreciation of what learning is about rather than deficiencies in the situation. Learning needs were seen largely as discrete 'management type' techniques or new pieces of knowledge to be acquired. Few saw learning as self-awareness, personal skills of communicating, finding answers to problems. There were some important exceptions to this mainly regarding Administrative Staff and among those working in the Community Sector. More detailed aspects of this are expected to be brought out from computer processing of the questionnaire data.

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