

Chapter 4 Work-Based Learning Versus Work-Related Learning—An Exploration of the Possibilities of Work-Related Learning Through a Review of the Venture Matrix at Sheffield Hallam University, UK

David Laughton

Introduction

The role of work-based learning (WBL) in the development of student employability skills¹ is well researched (see, for example Bailey et al. 2004; Boud and Solomon 2001). WBL is seen as a powerful pedagogic approach in terms of bridging the gap between higher education and the world of work and providing real world, authentic learning experiences. In higher education in the recent period there has been an expansion in the number of forms in which WBL takes place: traditionally the placement or internship was the predominant form; however, this is now expanded by organisation-based projects, student consultancy, volunteering, on-campus employment linked to curriculum or course-based activities, and organising roles in student union events, to mention a few. Although universities have responded positively to both the opportunities and challenges of WBL in terms of linkages with the curriculum, accreditation and supporting processes, there is still a sense that demand outstrips supply for WBL opportunities in higher education. Many institutions, therefore, are offering work-related learning (WRL) as a substitute for WBL, when the latter is difficult to provide for in terms of curriculum match, resources available, and logistical necessities. There is no agreed and precise definition of WRL, but the approach adopted in this chapter is:

learning which results in knowledge, skill or attribute development derived from engaging with tasks, processes and environments *similar* to those that occur in specific organisational and vocational contexts.

The chapter will review an approach to WRL within the “Venture Matrix” (VM) at Sheffield Hallam University in the UK. The VM offers a range of learning oppor-

¹ For a definition of employability skills see CBI (2009).

D. Laughton (✉)
Sheffield Business School, Sheffield Hallam University, Pond Street, Sheffield S1 1WB,
Sheffield, UK
e-mail: d.j.laughton@shu.ac.uk

P. Van den Bossche et al. (eds.), *Learning at the Crossroads of Theory and Practice*,
Advances in Business Education and Training 4,
DOI 10.1007/978-94-007-2846-2_4, © Springer Science+Business Media B.V. 2012

tunities for students: group projects with employers, projects with Sheffield Hallam University as a public sector organisation, mentoring opportunities with school children in the region with the aim of facilitating their enterprise skills, and student group projects focused on entrepreneurial activities to identify value adding activities with market potential. It is the latter set of opportunities that will be investigated in this chapter. A focus group research method is adopted to generate data which are then subjected to content analysis to identify the nature of the skills and attributes students feel they have developed whilst participating in VM activity. The findings from the data are then discussed in the context of the literature on WBL and WRL to reflect on the similarities and differences in learning experienced in these different contexts. The recommendations of the chapter relate to the ways in which WRL is understood and configured to produce maximum benefit for those engaged.

Work-Related and Work-Based Learning

Margaryan (2008) suggests that the growth in interest in work-based learning (WBL) is linked with the need to re-think the notion of valid learning in the context of current challenges faced by organisations. These include increased global competition, the move from hierarchically based organisations to flatter and task/team-based structures, and the rapid development of information and communication technology. According to Nixon et al. (2006), WBL incorporates a process rather than a content driven curriculum, which is learner centred. Learning outcomes are agreed in a tripartite manner, involving learners, the school/college or university, and the relevant employer(s)/organisation(s). Learning is experiential in nature, self-directed, and underpinned by a critically reflective approach. Assessment of progress and achievements is evidence-based and often involves a mixture of learner (self), tutor, and employer judgements and comments. The nature of learning is characterised by it being (Nixon et al. 2006, p. 40):

1. Task-related—learning arises from performance of task in the workplace and tackling workplace problems or issues.
2. Innovative—new techniques and approaches are devised to meet new situations.
3. Autonomously managed and self-regulated—learning takes place without direct instruction or formal tuition; students are expected to take responsibility for their own learning.
4. Concerned with enhancing personal performance and improving organisational performance.

WBL then is clearly different from classroom-based, instructor dominated approaches to education focused on transmitting substantive knowledge of a factual, conceptual, and theoretical nature associated with a particular discipline, with the aim to allow learners to reproduce this (Raelin 2011). It is different with respect to the nature of knowledge developed and the pedagogical strategies required to support it.

WRL itself has a long history in a higher education context. It is a more wide-ranging and amorphous concept in contrast to WBL and is offered in a variety of delivery modes and educational programmes: professional courses (courses related to professional bodies), vocational educational provision in technical universities or universities of applied sciences (Laughton and Otewill 1998), and programmes with a specific work focus, for example MBAs (see Byrkjeflor 2002, for a relevant discussion in this context). There is no agreed and precise definition of WRL, but the approach adopted in this chapter is:

learning which results in knowledge, skill or attribute development derived from engaging with tasks, processes and environments *similar* to those that occur in specific organisational and vocational contexts.

The aim of WRL is to help to prepare learners for participation/employment in an organisational context by equipping them with relevant knowledge, skills, and attributes that can be used and applied in situ. However, a distinguishing feature of WRL, in relation to WBL, is that *it does not take place* in the workplace. WRL pedagogy has attempted to *simulate, replicate, or mimic* workplace situations or problems; however, the context of the learning experience (and hence any actual learning experienced) is different. Pedagogical approaches to WRL include the use of simulation, role play, and case studies/history. Case studies continue to be a defining feature of business education generally since being adopted as a major pedagogical practice by the Harvard Business School in the early part of the twentieth century. They are commonly used in the teaching of strategic management but can be found in almost every business discipline. Advocates comment positively on their incorporation and synthesis of real business problems and issues and the problem nature of the challenges to students to respond with solutions, decisions, and recommendations which mirror actual management practice. Aaronson, for example describes the case method as “probably as close to practical experience as one can give in the classroom” (Aaronson 1996, quoted in Mintzberg 2005, p. 51). Over the time, business educators have developed different types of cases (e.g. archival cases, documentary cases, living cases, and learner-generated cases) which have attempted to foster a wider and more complex range of skills such as creativity (Riordan et al. 2003). They are classed as a type of experiential learning (Thompson and Dass 2000, p. 28) and therefore, both useful and often superior to pedagogic approaches which emphasise the didactic transmission of propositional knowledge. Unsurprisingly, given the ubiquitous use of cases within business programmes, there has been intense scrutiny of and debate about the effectiveness of this approach in business education. Mintzberg (1975) is probably the most long-standing and strident critic in this context, proposing that a pedagogy based on the analysis and evaluation of cases continues to emphasise an inappropriately overly cognitive approach to management development, one that encourages a view of management as purely analysis and decision-making rather than the complex mix of art, science, and practice as he perceives it: “When cases are used in place of experience, devoid of history, and force people to take stands on issues they know little about, in my view they become a menace” (Mintzberg 2005, p. 60). The limitations of the case method are explored in all aspects of the business

discipline (Hiam 1990; Whetten and Cameron 1991, for example) with the debate on the role of this method within management education in particular showing few signs of subsiding.

There is considerable research on the use of simulations in an educational context (see Wolfe and Roge 1997, for a review). Computer-based simulations have been used since 1956–1957 in management education (Wolfe and Guth 1975) and were initially focused on the development and testing of technical skills (Stone and Dearing 2009). Whilst this continues to be an important focus of simulations, more recently there has been interest in using simulations to develop dynamic behavioural skills which are important in work contexts, for example leadership (Wood et al. 2009) and attributes deemed to underpin effectiveness in an organisational context and in lifelong learning, for example self-efficacy (Thompson and Dass 2000). Attention has been focused on key design-elements of computer simulations to support learning: their structure, the surface of the simulation (the perceived world generated by sensory participation with the simulation), and associated or required tasks. Wood et al. (2009) suggest a hierarchy of four learning objectives that can be associated with computer simulations: (1) gaining insights, (2) acquisition of task-specific knowledge or expertise, (3) development of flexible expertise in applying task knowledge, and (4) the learning and transfer of behavioural skills. Thompson and Dass (2000) suggest that simulations have greater potential to foster self-efficacy skills amongst students compared to case studies for two particular reasons: firstly, simulations present better opportunities for students to develop “enactive mastery”, deemed to be a key aspect of self-efficacy; and secondly, they are a better method for facilitating experiential learning.

Role play, as a form of experiential learning, has the potential to develop both subject knowledge and skills and competencies relevant to a particular vocational context. For Beard and Wilson:

By means of dramatic activities students use and examine their present knowledge in order to induce new knowledge. (Beard and Wilson 2006, p. 142)

As those who participate in role play are actively involved in the construction of their own learning, role play can feature as the part of a constructivist pedagogy (rooted in the ideas of Vygotsky, see Van der Veer and Valsiner 1994), and offers the possibility of developing different intelligences (Gardner 1983). Dramatic role play is usually based on a dilemma, with participants acting out roles and contributing to possible ways of resolution. An interesting aspect of role play is the way in which it includes the emotional, affective, and ethical dimensions of experience and learning (see, for example Wootton and Stone 2010), and it has often been used in scenarios that feature negotiation, conflict, conflict resolution, and in the examination of culture and cross-cultural differences (Fowler 2009). Role play offers the possibility of both reflection-on-action and reflection-in-action (Schon 1983), where learners can experience the development of tacit and contextual knowledge which is a hallmark of professional knowledge. Claims have been made for the use of role play as an authentic learning tool (Clapper 2010), which both students and staff find enjoyable and rewarding (Van Mensis 1999), and which can be superior in terms of outcomes to

the traditional lecture approach to education (Howard 2011). It is well established in disciplines such as medicine (e.g. doctor-patient etiquette) and law (e.g. law clinics) and can be found in the aspects of business pedagogy (see, for example Wootton and Stone 2010).

In summary, the following potential outcomes of WRL can be derived from the above review: the development of technical skills which underpin operational performance, behaviours, skills and attributes associated with successful task performance; an understanding of the integrated, interdisciplinary and dynamic nature of business problems; the ability to develop practical and workable responses to business problems and issues; an understanding of knowledge development through situated practice, reflection-on-action and reflection-in-action; the role of emotions in understanding and decision-making; and an appreciation of ethical aspects of organisational problems and issues. These characteristics are useful in helping to bridge the gap between the university curriculum and the world of work. However, in comparing WRL and WBL, many commentators believe that WBL offers a more powerful and valuable learning experience in this context. Although both approaches share the same general aspiration of equipping learners to be effective in an organisational context, Raelin (2008) argues that the pedagogy of WRL does not provide the same opportunities for learners to convert theory into tacit knowledge, learn how to challenge and reflect upon their own theoretical assumptions, defend decisions, assumptions and moral judgements under pressure, and experience the difficulties of obtaining co-operation within a task environment with competing priorities and perspectives. It therefore, produces different learning outcomes compared to WBL. These may be valuable in their own right, but their specificity and difference needs to be acknowledged within the context of curriculum and programme planning. An appropriate and important consideration in the context of designing learning opportunities that mirror the reality of organisational life is then *the extent to which WRL can be founded upon principles and designed in ways that produces outcomes that are as close as possible* to those identified in the WBL literature, given the importance of WBL in bridging the gap between the academy (universities) and the workplace (see, for example Nixon (2006); CBI/Universities UK 2009; Sas 2009). This is the primary focus of this chapter. In terms of principles, one possible way forward for WRL is suggested by the notion of “authentic learning” (Lombardi 2007). Authentic learning experiences are characterised as having the following features:

- Real-world relevance;
- Ill-defined problem;
- Sustained investigation;
- Multiple sources and perspectives;
- Collaboration;
- Reflection (metacognition);
- Interdisciplinary perspective;
- Integrated assessment;
- Multiple interpretations and outcomes.

Learning outcomes associated with authentic learning are perceived as having a high degree of relevance in a work-place context, as well as more broadly, for example as represented in the notion of active citizenship. One test of this view would be to evaluate the extent to which a WRL pedagogy based on the notion of authentic learning generates similar or overlapping outcomes compared to WBL as identified in the literature. It is this issue which is explored through the evaluation of a WRL intervention at a university in the UK.

The Venture Matrix

The development of the Venture Matrix (VM) within Sheffield Hallam University, UK, was the initiative of a number of academics who were interested in employability and enterprise education based on authentic learning principles. It offers a range of authentic learning opportunities for students: group projects with employers, projects with Sheffield Hallam University as a public sector organisation, mentoring opportunities with school children in the region with the aim of facilitating their enterprise skills, and student group projects focused on entrepreneurial activities to identify value adding activities with market potential (see, <http://venturematrix.shu.ac.uk>). It is the latter which form the focus of the research and investigation in this chapter. The scale of operations of VM has grown consistently over the last few years, and in 2010–2011 it is anticipated that 1,400 students will be involved. In summary, the student group projects engage students in the design and production of a good or service in response to either opportunities or tasks provided by outside clients (private, public, and social enterprises and charities), or those parts of opportunities or tasks which are sub-contracted from one student group to other student groups via a bidding or tendering process. There are a wide variety of products or services offered by the student groups, which help to create a vibrant internal market (student group to student group) and a virtual on-line trading estate for VM activities. The VM "world" is supported and organised by a currency/financial framework for measuring the value added by the group's activities (all groups—start out with a financial allowance in a notional currency—are able to supplement this by borrowing from a central bank at advertised rates of interest, and earn extra funds through the internal market which develop for group services provided). The group mechanism and value creation/value adding focus provides a work-related dynamic to the process, which supports participants in the development of employability skills and attributes. Examples of recent student groups and their self-stated activities and offers of services provided through the VM web site include:

Cutting Edge Media "We offer the best service in media. With a team of diverse, experienced, committed, and talented people, we will ensure that our service is a cut above the rest. We do: *Video editing *Photography *Posters *Flyers *Business Cards *Logos *Adverts *Graphic Designs * And much, MUCH more!!"

eXpert Management "eXpert Management" are running a development scheme within local schools in order to effectively encourage young individuals to enhance their sporting development & healthy lifestyle. We require other ventures (research and marketing experts) in order to fulfil this entrepreneurial opportunity. Our venture consists of four entrepreneurs who promote organisation, team working & desire to achieve the best!

Evaluation of the Student Experience of Venture Matrix

A previous evaluation of student learning via participation in the VM focused on students' personal understanding and assessment of achievements in relation to employability skills and competencies at the different stages of combined business and IT degrees (Clark and Myers 2010):

Teamwork;
Risk management;
Negotiating and influencing;
Effective communication;
Creativity and innovation;
Positive attitude;
Initiative and flexibility;
Organising and planning;
Problem solving;
Leadership/managing others;
Awareness of ethical issues;
Financial literacy;
Produce and service design.

A survey plus interview methodology was used to generate findings. Key findings were reported as follows:

The students perceived that their 13 skill areas had been enhanced by 55–70% for first year students, by 65–81% for second year students and by 75–93% for final year students. Arguably the most striking feature is a monotonic enhancement of competences, from one year to the next in almost all the skills investigated. (Clark and Myers 2010, p. 31)

These findings were reassuring with respect to a range of employability skills. The skills included in the survey instrument, however, do not cover the range of WBL outcomes that appear in the relevant literature. To investigate this particular issue in more detail, a focus group session was organised. Five first year students from a Business and Technology degree course participated in this focus group, and the questions were themed around the central characteristics and outcomes of WBL identified by Raelin (2008) and Bailey (2004) which are summarised in the Appendix. The focus group discussion was recorded and transcribed. The transcription was then subjected to content analysis to identify key themes that emerged from the student reflections in relation to the organising framework for the discussion that was adopted.

The purpose of this approach was to produce data to help evaluate the extent to which the learning experiences and outcomes of their WRL were similar/dissimilar to those identified in the WBL literature, and hence to comment on the extent to which WRL can produce the same kind of experiences and outcomes as WBL. Summary findings from the focus group session are presented in Table 4.1.

Discussion

Participants were unanimous in their belief that the VM experience had helped them to develop their teamwork skills. They pointed to the strategies they adopted (dividing up work in relation to personal strengths, and meeting to check progress) and how they had developed confidence in dealing with people in group situations and in their communication skills. They recognised the different nature of what they had learnt through the VM process; although the participants struggled to articulate the nature of the skills/attributes/facit knowledge they had developed, they made a clear distinction between this and the formal propositional knowledge they gained via class room instruction. They also made reference to the job-relatedness of what they had learnt, emphasising the value-in-use of this knowledge and its inherent link with the process of its creation.

There was evidence of groups having to change their plans and approaches as the year developed, and the accepted need for a flexible mindset in relation to securing opportunities from other VM groups. Individual responsibilities were allocated to individual group members, within a broad timeline, with work from other university modules being prioritised where deemed appropriate.

Participants found it difficult to identify any aspects of theory and knowledge developed in other modules that were drawn upon or transferred into the VM experience. Indeed, this appeared to be the case also with the supporting lectures that formed part of the academic module within which VM was embedded. Furthermore, there were few reflections on personal theories developed via the VM experience, although reference was made to "common sense" and how to get things done in the context of working with other people.

There was reflection on the emerging and organic nature of the task, and the way that participants had responded as the VM experience/process had developed. Some participants commented that the ways in which the groups had undertaken their tasks could have been improved, but there were no insights relating to the nature of individual versus collective viewpoints, the associated dynamic, and the implications for personal understanding. The VM experience as a whole was perceived as consensual within the groups, influenced by friendships, and therefore "laid back", which mediated the experience as a whole.

The participants emphasised the development of personal attributes above skills and knowledge, as a product of the VM experience. There was recognition of the workable and practical nature of their outputs, particularly in relation to the position

Characteristics of WBL identified by Rachtin (2008) and Bailey (2004) (see referencing/motivation system used in the Appendix and summary formulation)	Evidence of these within the VM experience of students reported in the focus group discussion
1, 6, 7, b), f) "Collective processes/behavioural and practical outcomes"	"I'd say you do (develop team work skills) because when you get some work from a venture you all have to work together in order to get it done like on time and to the client specification so team working gets improved a lot." "Just getting on with each other, just recognising each other's skills and how to use them effectively in the piece of work that you're doing"
8, 9, c) "Problem orientation leads to lessons learnt"	"At the time, it doesn't really feel that you're learning, you obviously are but you just learn things as you go you might not realise that you're getting better at things like organisation, teamwork, and all sorts, might not necessarily realise just from doing the VM that you are."
3, a) "Real time learning experiences and problem formation"	"It's like more psychological isn't it because when you go into a lecture you're actually going there to concentrate to learn, but when you do the VM jobs you're actually just there to do the job and get it done as best you can and you don't have to worry you are actually learning interactively you're not actually learning factually, I think it helps" "We just went with the flow to be honest until we actually needed to do some work and then we went for it."
2, h), j) "Autonomy and self-direction with diverse thinking theory and real world experience"	"Yeah we didn't realise like by the time we got to January the 21st when there was a trade fair we still hadn't got a job we'd been looking but everyone was like we're Nova finance they'd take our card but no one actually got back to us and then eventually when we'd set our sights on pretty much doing anything we managed to get a job quite easily it's just a case of getting in before there was an email I think there was an email on Bb and I think we must have got in first because we got jobs then I think there was one other group there when we got there two groups but we managed to get the job"
	"I think the best thing to do is to go into it with an open mind, if you go into it with a one track mind saying we're only taking this sort of work then you're not going to do as well..."
	"We really had to adapt to circumstance really"
	"To be honest I didn't personally use any of the information out of the lectures I mean it was 9 o'clock start so I didn't turn up or most people who turned up were just sitting there tired out of their minds so to be honest I didn't really take much in I did take things in especially with some of the speakers that came in but the actual lectures themselves where it was just sitting there going through power points I didn't actually take in and as a result of that I couldn't really use it for the VM I just had we had to go with the skills we've got and develop from there..."

Evidence of these within the VM experience of students reported in the focus group discussion

Characteristics of WBL identified by Raelin (2008) and Bailey (2004) (see referencing/notation system used in the Appendix and summary formulation)	<p>4. i) "Personal standpoints amidst a variety of organisational perspectives"</p> <p>"I think we knew what the outcome had to be but the way we had to get to that outcome was quite open."</p> <p>"I think coz we split like the work up into pieces say I'd do it one way and then someone else in the group would do it another way, we didn't really have many meetings like sat down together, so we found at the end of one task the work was a bit jumbled up coz we didn't take it like interpret it right I think I mean if we'd had more meetings maybe we'd have sorted it out more smoother but we tended to."</p> <p>"Like in our group we're all friends anyway so our communication was quite easy between us"</p> <p>"... Like I said I think its about attributes, like knowledge I didn't have to gain any knowledge I don't think I gained any knowledge in the end I think it's more about personal attributes."</p> <p>"I'd say a mix of three (skills, knowledge and attributes) but mainly the personal attributes because I mean beforehand I wasn't very good at communicating like speaking to people I don't know but now I speak to people more confidently and interact better but I think knowledge and skills come into it as well, with the knowledge we did a research task for employability boosters so we researched into the website specifications standard website specs so I did gain a bit of knowledge on that and hopefully I'll be able to build my own website soon so put all that into practice like the legal side of it and the skills."</p> <p>"... don't really learn actual knowledge from it more what to actually do in certain situations. ..."</p>
5. c), g), k) "Workable and creative responses to organisational and environmental challenges"	<p>"I felt as a first year it was more common sense to get work and work with it, because you can't really do that much apart from just work for somebody else who has all the ideas and sets it all up for you so its more sort of getting in the right position to get some work."</p> <p>"Thing about our other modules is that they're not really to do with this so we couldn't really transfer"</p> <p>"I think we knew what the outcome had to be but the way we had to get to that outcome was quite open."</p> <p>"I think coz we split like the work up into pieces say I'd do it one way and then someone else in the group would do it another way, we didn't really have many meetings like sat down together, so we found at the end of one task the work was a bit jumbled up coz we didn't take it like interpret it right I think I mean if we'd had more meetings maybe we'd have sorted it out more smoother but we tended to."</p> <p>"Like in our group we're all friends anyway so our communication was quite easy between us"</p> <p>"... Like I said I think its about attributes, like knowledge I didn't have to gain any knowledge I don't think I gained any knowledge in the end I think it's more about personal attributes."</p> <p>"I'd say a mix of three (skills, knowledge and attributes) but mainly the personal attributes because I mean beforehand I wasn't very good at communicating like speaking to people I don't know but now I speak to people more confidently and interact better but I think knowledge and skills come into it as well, with the knowledge we did a research task for employability boosters so we researched into the website specifications standard website specs so I did gain a bit of knowledge on that and hopefully I'll be able to build my own website soon so put all that into practice like the legal side of it and the skills."</p> <p>"... don't really learn actual knowledge from it more what to actually do in certain situations. ..."</p>

Table 4.1 (Continued)

of their own work vis-à-vis the contracting VM group. The degree of creativity participants exhibited was seen to be limited as a consequence of undertaking work contracted by other groups. The feeling of being able to respond within situations given associated contingencies was also expressed and identified as a learning outcome of the VM process.

Conclusion

Participants in the focus group session were first year undergraduates. Engagement with the VM occurs in all three levels of their particular programme, and in different ways. As their programme progresses, the nature of the VM task becomes more complex and demanding, and student feedback indicates confidence in their employability skills development over time (Clark and Myers 2010). The focus group feedback undertaken in this study also suggests that there are a number of overlapping outcomes in the VM WRL experience compared to those that appear in the WBL literature: collective/team/group learning, personal attribute development (communication and team working), being responsive/flexible, defining problems/tasks, expertise similar to what happens in organisations/the world of work, and the practical and workable nature of outputs. However, there were also certain WBL outcomes that were not achieved through the VM experience: the development of personal theories (above "common sense"), the application of theory to practice (and subsequent reflection upon its utility), and a broader understanding of the context of the tasks within organisational, cultural, and socially constructed relationships. The challenges and opportunities for educators in this context relate to the extent to which these aspects can be integrated within specific WRL opportunities. Reflective pedagogy is both increasingly understood and used in a higher education context (Moon 2004) and curriculum designers can draw upon this research and these insights to add a reflective dimension to WRL activities and encourage the development of personal theories. Applying theory to practice continues to be a challenge for many students (Little and Harvey 2006). Laughton (2011), makes a number of suggestions in this context: an approach based on generating theory from business-related experience and practice as a way of introducing students to the theory-practice nexus in business education; the development of "live cases" based on students' organisational experience that can be used in the class room; and inviting students who have undertaken WBL to deliver specific inputs into learning sessions. Encouraging students to develop a broader understanding of the (social) context of their tasks can again be encouraged through a specific focus on this aspect in the design of the learning activity, and curriculum developers can take inspiration from the action research literature in this respect (Carr and Kemmis 1986). By focusing on such issues, curriculum developers can enhance the power of WRL to facilitate learning outcomes that support both the employability and life-long learning attributes.

Appendix

Key Outcomes of Work-Based Learning:

1. Learners learn collectively by working on and then reflecting on actual "actions" occurring in a real work setting.
 2. There is a merger of theoretical principles with an understanding of the social construction of the organisations in which the learners work.
 3. Real-time experience and problems occurring within a work setting, form the substantive subject of learning lesson.
 4. Feedback focusing on learners' values and behaviour ensures that actions are seen as positions/points of view with anticipated consequences.
 5. Learners are forced to find real, workable answers, not easy, hypothetical ones.
 6. Leadership and teamwork skills are developed along with more technical skills.
 7. There is immediate benefit to the organisation from the learners' contribution to the project.
 8. The lessons learned from the experience tend to stay longer with the learners than if they had learned them from a book or lecture.
 9. Dissolving problems rather than solving them is the primary focus and outcome. (Adapted from Raelin 2008, pp. 84–85).
- a. The cognitive skill of problem formation.
 - b. Flexible modes of problem solution—WBL students often learn that different solutions are sometimes appropriate for the "same" problem.
 - c. Using the environment as part of the problem resolving system—exploit the context creatively.
 - d. Effort saving, which helps with problem definition and the development of skills to solve these.
 - e. Application/adoption of a variety of forms of representation with respect to problems.
 - f. Cognitive teamwork—outcomes associated with the interplay of inputs from team members.
 - g. Executive functions—autonomy and self-direction.
 - h. Higher order thinking, characteristic of the discipline.
 - i. Understanding social relations within the context of the labour process.
 - j. Exposure/experience of diverse modes of thought.
 - k. Educational institution—work dialectic encouraging new ways of thinking. (Adapted from Bailey 2004).

References

Aaronson, S. A. (1996). Dinosaurs in the global economy. In R. P. Amdam (Ed.), *Management education and competitiveness: Europe, Japan and the United States*. London: Routledge.

- Boud, D., & Solomon, N. (2001). Knowledge at work: Issues of learning. In D. Boud & N. Solomon (Eds.), *Work-based learning: A new higher education*. Buckingham: Society for Research into Higher Education and Open University Press.
- Byrkjeflot, H. (2002). To MBA or not to MBA? A dilemma accentuated by the recent boom in business education. In R. Petter, R. Kvalshaugen, & E. Larsen (Eds.), *Inside the business schools—The content of European business education*. Copenhagen: Business School Press.
- Carr, W., & Kemmis, S. (1986). *Becoming critical, education, knowledge, and action research*. London: Routledge-Falmer.
- CBI/Universities UK. (2009). *Future fit: Preparing graduates for the world of work*. London: Confederation of British Industry.
- Clapper, T. (2010). Role play and simulation—Returning to teaching for understanding. *The Education Digest*, 75(8), 39–43.
- Clark, S., & Myers, C. (2010). An examination of the Venture Matrix as a mechanism to develop autonomous, enterprising students. In M. Bramhall, C. O'Leary, & C. Corker (Eds.), *CPLA case studies: Vol 2*. South Yorkshire: Sheffield Hallam University, UK. ISBN 978-1-897851-18-0.
- Cooper, L., Orrell, J., & Bowder, M. (2010). *Work integrated learning—Attitude to effective practice*. Oxford: Routledge.
- Fowler, M. R. (2009). Culture and negotiation: The pedagogical dispute regarding cross-cultural simulations. *International Studies Perspectives*, 10(3), 341–359.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Hiam, A. (1990). The case method is no method at all. *Marketing News*, 24, 10–22.
- Howard, J. L. (2011). Using a virtual national park to teach workplace skills in conservation management. *Journal of Geography in Higher Education*, 35(1), 11–22.
- Laughton, D. (2011). What type of knowledge is required in the business curriculum? The nature, role, and position of 'Mode 2' knowledge. *Building Learning Experiences in a Changing World*. Springer.
- Laughton, D., & Ottewill, R. (1998). Values and norms in British undergraduate education: Implications for the student experience. *Journal of European Business Education*, 8(1), 51–61.
- Little, B., & Harvey, L. (2006). *Learning through work placements and beyond*. HECSU/HE Academy. http://www.heacademy.ac.uk/assets/York/documents/ourwork/ila/Work_based_learning_LH_BL.pdf. Accessed 15 Feb 2011.
- Lombardi, M. M. (2007). Authentic learning for the 21st century: An overview. *Educate Learning Initiative Paper 1*, May 2007.
- Margaryan, A. (2008). *Work-based learning—A blend of pedagogy and technology*. Saarbruecken: VDM.
- Mintzberg, H. (1975). The manager's job: Folklore and fact. *Harvard Business Review*, July/August, 49–61.
- Mintzberg, H. (2005). *Managers not MBAs: A hard look at the soft practice of managing and management development*. California: Berrett-Koehler.
- Moon, J. (2004). *A handbook of reflective and experiential learning: Theory and practice*. London: Routledge-Falmer.
- Nixon, I., Smith, K., Stottord, R., & Cann, S. (2006). *Work-based Learning—Illuminating the higher education landscape*. York: HEA. ISBN 1-905788-15-0
- Raelin, J. A. (2008). *Work-based learning—Bridging knowledge and action in the workplace*. San Francisco: Jossey-Bass.
- Raelin, J. A. (2011). Work-based learning in US higher education. *Higher Education, Skills and Work-based Learning*, 1(1), 10–15.
- Riordan, D. A., Sullivan, M. C., & Fink, D. (2003). Promoting creativity in international business education: A protocol for student-constructed cases. *Journal of Teaching in International Business*, 15(1), 21–35.
- Sas, C. (2009). Research knowledge transfer through business-driven student assignment. *Education and Training*, 51(8/9), 707–717.

- Schon, D. (1983). *The reflective practitioner: How professionals think in action*. London: Temple Smith.
- Stone, A., & Dearing, M. (2009). Simulations: A case study of city and guilds' newest assessment. *Education and Training*, 51(5/6), 422–433.
- Thompson, G. H., & Dass, P. (2000). Self-efficacy in strategic management: The relative importance of cases and simulations. *Simulation and Gaming*, 31(1), 22–41.
- Van der Veer, R., & Valsiner, J. (1994). *The Vygotsky reader*. Oxford: Wiley-Blackwell.
- Van Ments, M. (1999). *The effective use of role play*. London: Kogan Page.
- Whetten, D., & Cameron, K. (1991). Developing managerial skills. London: Collins.
- Wolfe, J., & Guth, G. (1975). The case approach v gaming in evaluation. *Journal of Business*, 48, 349–364.
- Wolfe, J., & Roge, J. N. (1997). Computerised general management games as strategic management learning environments. *Simulation and Gaming*, 28(4), 423–441.
- Wood, R. E., Beckmann, J. F., & Birney, D. P. (2009). Simulations, learning and real world capabilities. *Education and Training*, 51(5/6), 491–510.
- Wootton, D., & Stone, B. K. (2010). Modern learning methods for HRD—The Clinical Legal Education (CLE) approach. *Journal of European Industrial Training*, 34(8/9), 839–851.

Part II

Workplace Learning