

New Approaches to Work Experience

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Work experience is a feature of careers programmes in most schools and colleges. In this article, we present a typology of work experience which identifies models of work experience. We argue that most models of work experience have either ignored the influence of 'context' upon learning or have approached this issue mechanistically. New curriculum frameworks are needed to allow work in all of its forms to be used as a basis for the development of knowledge, skills and identity. We suggest that a model, which embodies the concept of 'connectivity', may provide the basis for a productive and useful relationship between formal and informal learning.

Models of work experience

Different approaches to or models of work experience embody changing responses to policy, to the learner, to skills needed and to pedagogy. The first four models we have identified reflect the influence of different economic, technological and social factors prevailing within European countries as well as different ideas about learning and development. We identify criteria to help us differentiate between the characteristic features of each model – and they can be viewed as part of an evolving continuum of learning through work experience. Although the models may be specific to different periods of economic and technological development and reflect changing educational ideas about the process of learning, they can and do co-exist in different countries. They are analytical rather than descriptive; no specific work experience programme fits neatly into any of the models and some programmes may contain elements of more than one model. The fifth model presents a new approach to work experience which is based upon the principle of *connectivity*. It displays innovatory features which are relevant to future approaches to effective learning through work experience.

The traditional model of work experience: 'launching' students into the world of work

The legacy of the technical-rational perspective on education and training is evident in the models of work experience traditionally associated with apprenticeship schemes and general education throughout Europe. Until relatively recently, a prime aim of apprenticeship-based work experience programmes was to mould and adapt students' skills in workplaces (Vickers 1995, Stern & Wagner 1999a, 1999b). By contrast, the school-based work experience schemes introduced in the UK in the 1970s tended to assume that students would unconsciously or automatically assimilate relevant workplace knowledge, skills and attitudes and internalise the implications of occupational changes occurring in the workplace (Watts 1983).

This emphasis upon both adaptation and assimilation in the traditional model of work experience is a distinctive feature of a technical-rational perspective on education and training. Students engaged in work experience have often been viewed as 'containers' (Lave 1993) into which various forms of social interaction can be 'poured' and it has been assumed that knowledge and skills can be taught quite separately from the context of their use.

These assumptions about learning are consistent with what Kindermann & Skinner (1992) have termed a 'launch' perspective on the relationship between people and their environment. In other words, it is the initial learning situation (school, college or vocational training centre) which largely determines what a person will do in a new situation: the earlier learning determines the trajectory of later learning, with the environmental influence being fairly minimal. Thus, from this perspective, the prime purpose of traditional models of work experience has been to 'launch' students into the world of work

Conceptualising work experience simply as 'launch', however, leaves little incentive to develop a theory of how students learn and develop through work experience and this has helped to maintain the divisions between formal and informal learning and academic and vocational education (Lasonen & Young 1998). As a revealing study by McNamara (1991) has elaborated in schematic form, it is not possible to reform the 'launch' model of work experience by trying to reform the content of the formal vocational education and training (VET) component of learning alone.

The experiential model: work experience as 'co-development'

During the second half of the 20th. century, many educationists turned to the work of Dewey (1981, 1986, 1988) for a philosophical basis for a curriculum critique of technical rational assumptions about education and training.

But, as Prawat has noted (1993), many American and European educationists have interpreted Dewey's important ideas rather narrowly as an expression of the idea that all stages and phases of education should be made 'relevant' to students and that there should be a more problem-based approach to education and greater use of inquiry-based models of teaching and learning. There has therefore been considerable interest in the psychology of education (Resnick 1987), curriculum studies (Michaels & O'Connor 1990) and adult education (Kolb 1984) literature in the extent to which the idea of practical problem-solving and experiential learning can serve as a strategy to promote higher order thinking.

In the case of work experience programmes, certain versions of experiential learning, specifically those based on Kolb's idea of the experiential 'learning cycle', were perceived in general education as providing a useful framework for understanding how students learn through work experience (Jamieson *et al* 1988, Miller *et al* 1991). One consequence of adopting this slightly broader perspective on work experience was that it placed the idea of a student's interpersonal and social development at the forefront of the agenda for work experience (Miller *et al* 1991, Wellington 1993). Two ideas lay behind this interest: first, it reflected certain educational aims, such as a desire to equate the value of learning more clearly with its practical applications (Watts 1991). Second, it reflected a growing policy interest across Europe in establishing education-business partnerships in order to assist students to adjust themselves more easily to the ever-changing demands of the labour market (Griffiths & Guile 1998, Stern & Wagner 1999b).

Re-thinking the purpose of work experience in order to take more explicit account of the *actual* trajectory of a student's development has led to greater dialogue and cooperation between education and workplaces. In many ways, it reflects Kindermann & Skinner's notion of 'co-development' between interested parties (1992). A gradual re-thinking of the principles of work experience along the above lines took place from the late 1980s in various European countries. Some of these schemes and, for that matter, some schemes in the USA (Stern & Wagner 1999b), as well as certain approaches to work experience introduced in the UK through the Technical and Vocational Education Initiative (TVEI), began to take greater account of the process of student development.

This led to greater interest being displayed in three areas: first, the need for educational institutions or intermediary agencies, such as education-business partnerships, to negotiate clear objectives for students, workplaces and schools/colleges in advance of the work experience (Griffiths *et al* 1992, Miller *et al* 1991); second, the development of new pedagogic practices to assist students in identifying, possibly through the use of a de-briefing process after the work experience, the influence of the experience on personal and social development (Watts 1991); third, the long term

benefit of evaluating work experience in order to identify how the work experience might have affected subsequent motivation and performance in school or college.

However, despite this fresh thinking about the purpose of work experience in general education, the mainstream curriculum in most EU countries was left broadly unaffected, with work experience effectively kept separate from it. Equally, the whole question of the relationship between theoretical study and work experience, even in countries with strong apprenticeship systems, was also left unresolved.

The generic model: work experience as an opportunity for key skill assessment

One of the main educational debates in Europe in the late 1980s and early 1990s concerned the attempt to promote a greater sense of learner autonomy and self-discipline, particularly in low-attaining students, within general and vocational education programmes (Green *et al* (1999)). These developments have led, in the UK in particular and to a lesser extent in certain parts of Europe, to the emergence of what may be referred to as a 'generic' perspective on learning. By and large, this perspective is based on the idea that it is, first, more liberalising and egalitarian to adopt a system which attaches prime importance to the 'outcome', the result, and does not prescribe the form of learning necessary to gain a qualification (Jessup 1990). Second, that an agreed series of common outcomes can be identified for any programme of study and on that basis it is possible to assess the learning that has occurred (Kamarainen & Streumer 1998).

In the UK, the notion of 'learning outcomes' has been associated with attempts to shift the emphasis away from traditional curriculum concerns with structure, content, and teaching 'inputs' towards actual outcomes (Young 1998). They have been viewed as a method that can be used to assist individuals to capture their own experiences and present such experience for accreditation (Ecclestone 1998; Usher *et al* 1997). Certainly, the notion of 'learning outcomes' has been subject to considerable criticism in the UK for its highly behaviourist and superficial assumptions about the process of human development and learning (Ecclestone 1998), as well as the assumption that neutral judgements can be made about the extent to which experience is equivalent to understanding or the development of occupational capability (Jones & Moore 1995).

Nevertheless, 'learning outcomes' have gradually become an accepted part of 16-19 vocational education and training in the UK. The Qualifications and Curriculum Authority (QCA) has issued very specific guidance to schools and sixth-form colleges about the framing, definition, setting out and assessment of learning outcomes in relation to pre and post-16 work experience (QCA 1998). Furthermore, 'learning outcomes' are used within the UK's Modern Apprenticeship programme in order to provide evidence of the learning,

which apprentices may present for formal or informal accreditation, that has occurred during work experience (Fuller 1996).

As a result, strong emphasis has been placed in post-16 education upon a particular interpretation of student-centredness related to student autonomy and independence. In the case of work experience, this has been interpreted as planning a work experience placement and managing and evaluating the learning through the use of statements about 'learning outcomes' (Miller 1996, Oates & Fettes 1997). This approach to learner-centredness requires learners to formulate their own personal action plans for work experience. The plan serves as a type of contract between the individual, the workplace and the educational institution, thus facilitating student self-assessment and external verification of key skill development within a workplace, albeit in a rather narrow and mechanistic way (Ecclestone 1998).

In theory, the use of action plans generates a new role for teachers. They are required to assist students in assembling portfolios of evidence for assessment at a later stage. However, all too often, this consists of the application of a specific set of methodological procedures designed to facilitate the recollection of experience (Usher *et al* 1997). By virtue of the procedures having generally been derived from a meshing of the Kolb learning cycle and behavioural learning outcomes, they are assumed to be constant across all contexts and capable of guaranteeing the authenticity and validity of the experience (Ecclestone 1998, Usher *et al* 1997).

However, the idea of teacher/trainer-facilitated reflection is complex. First, it involves awareness of the assumptions (i) that 'experiential learning' is a natural category and (ii) that that the 'voice' of an individual or community constitutes in some way authentic knowledge of a situation. As Moore & Muller (1999) argue, the idea of 'experiential learning' and 'voice discourses' are themselves endowed with theoretical assumptions (in the present case, about how learners can be helped to make sense of their inter-subjective experience). Accordingly, the meaning and significance of experience depends not only upon the experience as such but also on how and by whom it is interpreted (Brah & Hoy 1989).

Second, it involves those in education or workplaces with responsibility for supporting the process of learning exploring with learners the extent to which experience is influenced by the constraints of its context. As Young and Lucas (1999) argue, this is likely to involve the use of concepts to provide a theoretical framework in which learners can reflect critically upon their experience. Eraut (1999) observes that, in order to use a scientific concept in a practical situation, it has to be transformed or resituated in a firm which fits the context. This is not a process of logical reasoning but rather of 'mulling over' the situation until 'something seems to fit'.

Thus, concepts and theories can be introduced to the learner by the teacher or trainer and deepened through conversation in order to facilitate the process of reflection. Moreover, as Prawat (1993) argues, 'ideas serve to educate attention'. In other words, learners need to be immersed in ideas as well as in the world of experience and it is the *process of mediation* that provides learners with a basis for connecting their context-specific learning with ideas or practices which may have originated outside those contexts.

The work process model

As stated at the outset, the aim of this paper has been to reconceptualise how students, whether engaged in post-16 general or vocational education and training programmes both learn and develop through work experience and also can be supported to take explicit account of *the learning which occurs within and between the different contexts* of education and work. Various attempts have been made, especially in the TAFE system in Australia (Billet 1993) and the 'dual system' in Germany (Attwell & Jennes 1993), to take greater account of the influence of the context of work upon learning and to avoid affording unmediated 'experience' a privileged place in work experience programmes. These attempts have not, however, gone very far in developing a curriculum framework which enables students to relate formal and informal learning.

One response to the classic problem of division between formal and informal learning has emerged from within the German VET tradition. The term, 'inert knowledge', has been employed to describe types of formal knowledge which have been taught to apprentices but which have not proved useful in practice, even though the knowledge itself may be relevant to work practices. Consequently, the concept of 'work process knowledge' has been introduced to assist apprentices and teachers in overcoming the dilemma of 'inert knowledge' (Kruse 1996). Work process knowledge has been defined as understanding the labour process in terms of the following dimensions: 'product-related, labour organisational, social ecological and systems-related' (Kruse 1996). The main distinguishing feature of the concept of 'work process knowledge' is that it draws attention to the importance of situating work practices in the actual context of the labour process. Thus, it has been argued that work process knowledge is fundamental to a VET curriculum. Apart from developing formal elements of a programme of study, including work experience, to assist the student in understanding individual tasks, activities or behavioural expectations, it has also been recognised that it is vital to develop a broader understanding of the actual work context (and hence employability). As Fischer and Stuber (1998) have argued, this combination of theoretical and practical learning prepares apprentices to engage more rapidly with new organisational forms of production and enables them to move into alternative work environments more easily.

The prime purpose of work experience, from this perspective, would be to help students *adjust* themselves

more successfully to the changing context of work through the opportunity to participate in different communities of practice. The idea of 'attunement' recognises that the development of any individual is affected by the task or activities which he or she is asked to undertake in a specific context and that the context, in turn, is also affected by their development (Kindermann & Skinner 1992). A key concern, therefore, is to ensure that students learn about the context in which they are working and are presented with opportunities to learn and develop within that context by adjusting or varying their performance as required. Only on this basis, it is claimed, will students fully develop the capacity to transfer the knowledge and skill gained in one work context to another. Attwell and Jennes (1996), however, have argued that work experience will not by itself promote work process knowledge and that it needs to be *mediated* – perhaps by the introduction of concepts, perhaps by subject knowledge – and that the process of mediation may take place within the workplace and company-training centres. They conclude, in relation to the German VET programmes, that these programmes will have to be further evolved to help students connect formal and informal learning more explicitly. They do not, however, provide any explicit guidance on how to achieve that objective, other than suggesting that students need to be coached to 'reflect-on' and 'reflect-in' action.

A connective model of work experience

Thus far, we have argued that, although each of the foregoing approaches has their own strengths, they are all beset by different weaknesses. We now go on to consider an alternative model of work experience – the connective model. This model is based upon the idea of a 'reflexive' theory of learning (Guile & Young forthcoming (a)) which involves taking greater account of the influence of the context and the organisation of work upon student learning and development, the situated nature of that learning and the scope for developing 'boundary crossing' skills. It also entails developing new curriculum frameworks which enable students to relate formal and informal, horizontal and vertical learning. From this perspective, learners need to be encouraged to conceptualise their experiences in different ways and for this conceptualisation to serve different curriculum purposes. This is very similar in intention to what Freire has defined (Freire & Macedo 1999) as the role of the teacher – to create 'pedagogical spaces', in other words, to use his/her expertise to pose problems in order to help learners analyse their own experiences and arrive at a critical understanding of their reality.

We employ the term, *connectivity*, to define the purpose of the pedagogic approach which would be required in order to take explicit account of the vertical and horizontal development of learners. Supporting students to understand the significance of these two dimensions of development constitutes a pedagogic challenge, albeit a rewarding one, for teachers in educational institutions as well as those with

responsibility for development in the workplace. It involves encouraging students to understand workplaces as a series of 'interconnected activity systems' (Engeström forthcoming) which consist of a range of 'communities of practice' (Lave & Wenger 1991, Wenger 1998). In addition, it involves teachers and workplaces appreciating that work experience provides a range of very different ways of learning compared with how students normally learn in school (Guile and Young forthcoming (a)). Consequently, learners, teachers and workplaces need to ensure that work experience provides an opportunity for learners to 'learn to negotiate how they learn' in workplaces since this is critical to effective workplace performance (Beach & Vyas 1998) as well as to learn the new capabilities that are gradually being required in 'high-performance' workplaces (Guile & Fonda 1999). For example, work experience can provide an opportunity to develop the personal, social and behavioural skills that support personal and organisational learning. This type of 'horizontal development' goes far beyond what is usually referred to as key skill development since it is not simply concerned with problem-based 'know-how'.

Thus, learners will need to be supported to appropriate concepts acquired through vertical development, and which are external to the context, to mediate the relationship between their formal programmes of study and, for example, trends in labour and work organisation. They not only have to develop the capacity to participate within workplace activities and cultures; they must also learn *how to draw upon their formal learning* and use it to interrogate workplace practices. Eraut (1999) suggests that this could involve: use of prior knowledge, seeing the relevance of concepts, resituating the concepts and integrating the new knowledge.

These ideas about learning through work experience reflect our earlier comments that 'host' organisations ought to consider how they can provide 'environments for learning' (or opportunities to participate in 'communities of practice') if they are to maximise the learning potential of these activities for themselves and for learners. This implies a reappraisal of human resource development strategies, as well as management and developmental practices, by 'host' organisations and of pedagogic practice by teachers, since students and workers have to learn how to enter unfamiliar territory and work collaboratively in different communities of practice (Guile & Fonda 1999).

The implications of the above re-conceptualisation of work experience are evident in relation to the question of the 'transfer of learning'. The concept of transfer has traditionally rested upon the idea that learning simply consists of acquiring knowledge and skill in one context (a workplace) and reapplying it in another (another workplace). This concept lies at the heart of the UK and EU debate about key skills and key competencies. The main problem with this conception of skill and transfer is that it completely neglects the influence of context, resources and people upon

the process of learning and, as Engeström *et al* (1995) argue, misconceives the process of transfer. Once workplaces are viewed as 'activity systems', with their own divisions of labour, rules and procedures, it is possible to replace the notion of 'transferability' with the concept of 'boundary crossing'. This reflects the recognition that students engage successfully in different tasks and in different contexts by demonstrating what Reder (1993) has referred to as 'polycontextual skills'. Such an approach takes account of the fact that learning is a process both of self-organisation and enculturation (Cobb 1999) and that these processes occur while individuals participate in cultural practices, frequently while interacting with more knowledgeable others in workplace 'zone of proximal development'. At one level, learning through work experience 'calls for the formation of new mediating concepts' that assist learners in developing the forms of social interaction that support dialogic problem solving. In this sense, as Engeström *et al* further argue, 'boundary crossing may be analysed as a process of collective concept formation'. At another level, it involves learners in functioning as 'connective specialists' (Young 1998), using specialist knowledge and skill acquired in formal education to understand why certain types of performance are required in different work contexts and how to work with others to produce new knowledge. Thus, teaching and learning become more a product and process of interaction within and between contexts and the successful mediation of these relationships is based upon a recognition that learning involves the *negotiation of learning* as part of actual workplace experience. Some of these issues have been explored through a series of case studies in a research project undertaken under the EC Fourth Research Framework: 'Work experience as an education and training strategy: new approaches for the 21st century (Griffiths & Marhuenda forthcoming).

Conclusion

This paper has analysed how students, whether engaged in general or vocational education and training programmes, learn and develop through work experience. We have argued that studies of work experience have tended not to address this issue but have, rather, perpetuated the idea that the actual work contexts within which work experience takes place are stable, unchanging, transparent environments in which students can easily learn and develop. We have therefore addressed the concept of 'context' as the starting point for considering learning through work experience and have argued that any analysis of work experience should take account of the following issues: first, the different types of context (e.g., education and work), different strategies within contexts and the influence of context on the process of learning; second, the extent to which students have to learn how to 'negotiate' their learning during work experience; and, third, the extent to which students must be supported to relate formal and informal learning, given that knowledge is unevenly distributed in workplaces. We have argued that most models of work experience have in effect either ignored these issues or have at best approached them in a very mechanistic way. On the basis of this analysis, we develop a typology of five models of work experience – the traditional model, the experiential model, the generic model, the work process model and the *connective* model. These different models embody changing responses to policy, to the learner, to skills needed and to pedagogy and reflect the influence of different economic, technological and social factors prevailing within European countries as well as new ideas about learning and development. Thus, we suggest that they can be viewed as part of an evolving continuum of approaches to learning through work experience. We suggest that the fifth model – the connective model – provides a new curriculum framework that can take work in all its forms as the basis for the development of knowledge (historical, scientific), skills (intellectual, technical, practical and communicative) and identity (in particular, the development of the ability to act as a 'boundary crosser'). We suggest that this 'connective model' of work experience may provide the basis for a more productive and useful relationship between formal and informal learning since it addresses how work experience can enable students to take explicit account of *the learning which occurs within and between the different contexts* of education and work.

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