
Learning About the World of Work: Co-opting School Students' Paid Work Experiences

Stephen Billett
Griffith University

Abstract

This paper proposes co-opting high school students' paid part-time work experiences to develop their critical understanding of the world of work, beyond their schooling through post-school pathways. It argues that unlike work experience program or work placements organised through schools, students' paid part-time employment provides authentic workplace experiences that have the potential to inform students deeply and critically about the world of work. These experiences include the reciprocal obligations that arise from paid employment and, as such, provide a rich base for high school students to explore the world of work, relationships in the workplace, what constitutes more and less valued work and how work is organised and rewarded. The co-opting of students' work experiences for school-based activities may provide a useful base to explore the world of work both for those students who are employed part-time and those not employed in part-time work, but able to learn from their peers' experiences. To assist achieving these goals some pedagogic tools are required to effectively describe, analyse and illuminate these experiences in classroom settings. A way of describing and critically appraising this paid work is proposed through individual and collective consideration of the activities and interactions that constitute students' paid work experience. Given the difficulty of organising workplace placements and work experience programs, and the potentially richer outcomes, co-opting students' paid work experiences presents a viable and worthwhile resource available in most classrooms for learning more about the world of work.

Integrating work and school-based experiences

The provision of workplace-based experiences and activities and school experiences that have a vocational education and training (VET) emphasis reflects a concern to

prepare Australian school students for school-to-work transitions and the world of work beyond schooling. However, the integration of these two kinds of experience - those in the school and those in the workplace - is seldom intentionally or purposefully structured (Fullarton 1999, Malley, Frigo & Robinson 1999), thereby perhaps weakening their potential separate and collective contributions. School organised work experience programs are usually directed towards one of two purposes: (i) work placements aligned to students' vocational interest; or (ii) programs that aim to provide students with the experience of work and workplaces (Billett 1998). Quite distinct educational goals are reflected in these purposes. The first kind of work experience is directed towards the development of the specific vocational skills required for a particular paid vocation. These experiences aim to assist and structure the development of the students' procedures, concepts and values associated with a particular kind of paid work. They assume that students have identified the particular vocation they wish to pursue and are directed towards achieving that as an educational goal. It is unlikely that without extensive periods of work experience students would develop the skills required for effective practice in their selected vocation. Consequently, extensive engagement in specific work activities is crucial. Structured work-based experiences related to school-based apprenticeships and traineeships are examples of this kind of workplace experience.

The second kind of workplace experience is directed towards students learning more generally about the world of work – working life, if you like – rather than a particular vocational practice. It comprises by far the most common kind of work experience program in Australia (Fullarton 1999). That is, these programs aim to give students 'a taste of the world of work' (Fullarton 1999) and of working life beyond schooling. This educational goal is more important than simply preparing students for transition from school to the paid workforce. It can also assist students to make informed choices about selecting the kind of employment and/or further education they want to pursue, and potentially develop an understanding of the requirements for working life which, for many, will be a key activity throughout much of their adult life. Moreover, individuals' capacity to secure and enjoy a rich working life is associated with their identity and sense of self. Quickie (1999) argues that a reactive work ethic should be displaced by a concern associated with work being seen as a desirable activity, both individually and socially. Here, he echoes what Dewey (1916) proposed in respect to vocations being viewed as a direction in life that is meaningful, in terms of individuals' goals and their social roles, rather than being premised on culturally sanctioned views about worth and standing. Certainly, in Australia, the standing and status of the occupation is held to be central to individuals' identity "For nearly everyone work is a social protein, a buttress for identity and not a tradeable commodity" (Pusey 2003, p.2). Therefore, to make informed decisions, students need to understand something of what constitutes different kinds of work, their

comparative value, how the organisation of work proceeds and the ways in which work is more or less rewarded and rewarding. In addition, understanding the obligations of their employers and what employers might expect of employees and how individuals might forge a personally rewarding working life are also important goals to assist the transition to their desired work. These goals are fundamentally and broadly educative, having the potential to prepare young people to make informed decisions and judgements about their present and future working lives that are central to individuals' personal and vocational goals.

This paper focuses on this second kind of experience. It discusses prospects for developing an informed and critical understanding of the world of work, by drawing on students' experience in paid work. Its educational purpose is to inform senior high school students about the world of work in order to best prepare them to understand and make decisions about and in their working lives. It advocates using paid part-time work experiences as bases for achieving these educative purposes. Its principal procedural contribution is to advance a scheme through which students can describe and critically appraise their work experiences. This focus is consistent with what students already report. They claim that paid work is more effective than work experience programs for: (i) learning to work with other people; (ii) learning to follow instructions; (iii) thinking for oneself and increasing confidence (Fullarton 1999). Similarly, Smith and Watson's (2002) survey reports that school students readily have the capacity to view these experiences critically. These authentic work experiences may have the capacity to more richly inform students about working life than those experiences provided through work experience or work placement programs. That is, in their paid part-time work, students participate in activities that are more authentic to the world of work and for longer periods than when engaging in work experience programs. This proposition is supported by the view that the kind of activities and interactions in which we engage (i.e. the things we do) influence how we think, act and learn (Billett 1996, Rogoff and Lave 1984, Shuell 1990, Van Lehn 1998). Consequently, different outcomes will likely result from learning vocational tasks in an environment that provides authentic vocational experiences (e.g. paid part-time work) than those that are substitute (e.g. work placements). It is through authentic workplace activities that students will most likely construct authentic knowledge about the world of work, because it provides authentic working life experiences. Therefore, in aiming to develop an informed and critical awareness of the world of work, high school students' paid work experiences provide rich resources that may be shared, discussed and analysed by students in classroom settings.

However, the goals for these programs and how these experiences are integrated into the overall school curriculum need to be considered and implemented intentionally

and carefully for their benefits to be fully exploited. To develop students' capacities to critically appraise the world of work, some curriculum or pedagogical tools are likely to be required. It needs to be emphasised, however, that these paid work experiences are not to be taken as exemplars of work or working life. Instead, their role is to provide experiences that students can use to illuminate and develop criticality about working life.

The elaboration of this case is structured as follows. Firstly, that the students' paid work experiences are proposed as qualitatively different in terms of workplace engagements, interactions and expectations from those provided by schools in the form of work experiences or work placements. Secondly, paid part-time work experiences are held to provide a resource that can be used in classroom-based activities to enrich, through a process of critical appraisal, the educative experiences of both students who have worked part-time and those students who are not engaged in the paid work force. Finally, some pedagogic tools are proposed as a means of structuring and enriching these classroom-based experiences. In all, the principal focus of this paper is an elaboration of some conceptual and procedural premises for co-opting students paid part-time work for these educative purposes. Issues associated with the implementation are referred to and rehearsed, yet not richly exercised here. These matters will be subsequently investigated and elaborated through a project which focuses on enactment in different school settings, guided by the teachers' practice in those settings and students' responses to them (Billett 2004).

Appraising students' paid work experiences

Australian high school students engage in different kinds of workplace experience. There are those organised by the school, as in work placements, work experience programs or placements, and also those experiences students organise for themselves in the form of paid work (DETE 2000, Fullarton 1999, Smith and Wilson 2002). Here, the concern is with how those workplace experiences can best assist students to understand and develop criticality about the world of work beyond school. The relative quality of these different kinds of experience can be gauged by how effectively they assist students to construct an understanding of the world of work.

Constructivist views on learning (e.g. those from the cognitive and socio-cultural literatures) propose that the kinds of activities and interactions individuals participate in and how they participate are central to their learning (Billett 1996). That is, the kinds of actions that individuals engage in, the kinds of problems that they encounter, the degree of effort required to resolve these problems and the kind of interactions with others are central to the cognitive legacy of those experiences (Van Lehn 1998). As Rogoff and Lave (1984) propose, activity structures cognition – the kinds of goal directed activities individuals engage in shape what is learnt. This engagement

requires the deployment of existing cognitive attributes that will be transformed in some ways through their deployment (Newell & Simon 1972). Cognitive theory suggests that this transformation is influenced by the degree the tasks are novel to the individual thereby potentially inciting new learning, thereby reinforcing, refining or honing what is already known (Anderson 1982, 1993). The degree to which individuals actively engage in decision-making and the kinds of decisions made are likely to be associated with the richness of the learning (Sweller 1990). That is, the construction of the impasses and responses (outcomes) are in some ways person-dependent. Moreover, individuals decide which problems they engage in and with what degree of engagement: what problems are worth solving (Goodnow 1990). They are shaped by individuals' intentionality and interest in engaging in those experiences. Above all, this consideration embraces the 'experienced curriculum' (Marsh & Willis 1995) which for some is the only reasonable definition of curriculum (Pinar 1980).

So, there are associations between how individuals engage in a particular practice and the kinds of learning that arise through experience. Engaging in demanding tasks, and electing to engage effortfully, more likely leaves a legacy in the form of changes to students' thinking and acting than when engaging in non-effortful thinking and acting (Van Lehn 1998). The decision an individual makes when engaging in either assimilation (i.e. linking new experiences to existing knowledge) or accommodation (i.e. extending knowledge structures through the formation of new categories) (Piaget 1966) is not wholly dependant on the stimuli. In this way, individuals play a key role in this constructive process and its outcomes. As noted, it has been found that students' engagement in paid work is motivated by strong personal interests associated with financial goals relating to their independence or contributing to the family (DETE 2000). These kinds of motivation might result in a more full-bodied engagement with the workplace and work than in situations where such motivations may not exist in substitute activities, such as work experience.

Beyond its individual shaping there is also a social dimension to the constructive process of learning. Knowledge about work and working life, including the bases for critical appraisal, has a social genesis (Billett 2003). It comprises society's gift (Archer 2000). When engaging in demanding thinking and acting, students may extend their knowledge through engagement with social sources and practices (e.g. those in workplaces) that make that knowledge accessible. Therefore, interactions over time with social sources are most likely required to experience, refine and develop understandings and practices. The requirements for performance at work are also held to be situational and embedded in particular social practices (Billett 2001a, Engestrom & Middleton 1996) as these requirements are shaped in and need to be understood by their context. Moreover, the physical and social environment is richly

informative (Lave 1993). It furnishes artefacts and structures relations and interactions that shape thinking and acting (Gauvain 1993). So, the environments in which individuals learn are not neutral, nor do they provide uniform kinds of contributions. The processes of thinking, acting and, therefore, learning overviewed above are referred to as being inter-psychological: between the individual and the social world in which the individual engages. They represent the interaction between the cognitive and social experience (Valsiner & van de Veer 2000), which is co-constructive. That is, there is a reciprocal process between individuals' existing knowledge (i.e. their cognitive experience) and what they encounter (i.e. their social experience). Through the kinds of activities and interactions they furnish, paid work represents authenticity in workplace experiences in ways that work experience programs (Billett 2001c) may not be able to reproduce. This is because the engagement by individuals and the activities and interactions afforded by paid work activities are consistent with those arising through paid work, thereby reflecting what happens in working life.

More than just mere experience, the kinds of activity individuals engage in and the kinds of interaction in which they participate in workplaces can make particular contributions to learning about working life. The kinds of activity that these experiences provide (albeit through work placement, work experience or paid work) and how individuals engage in those experiences will shape what is learnt. Equally, the kinds of interaction students experience will likely shape the social sharing of knowledge and, hence, their learning (Billett 2001b). Given that much of what has to be learnt arises through social interaction, the kinds and quality of interaction that occur in workplaces will also shape what and how students will learn during their time in these environments. Interactions between students and the workplaces will be different when students are engaged in short term work experiences where there is less obligation, than when in longer term paid work where there are expectations and obligations about performance associated with remuneration and maintenance of relations in the workplace. This is not to suggest that some students will not be able to engage in a full-bodied way in work experience programs. Clearly, they can. For instance, Stasz (1999) notes the quality of engagement in work experience programs improves when there is a close alignment between the students' interests and the activities of the workplace. However, there are likely to be quite different bases for activities and interactions between the two kinds of workplace experiences.

Differences between these two kinds of experience appear to be of three kinds. First, perhaps what most distinguishes paid employment experiences from those of work experience is the authenticity of the demands for performance and the reciprocal obligations on and expectations of both the employer and employee. The kinds of experience accessed in paid work are likely to be highly structured in terms of the workplace's goals and continuity. That is, the activities for which individuals get paid

are associated with the workplace's continuity (e.g. profitability, quality of service, productivity) and continuity of individuals' employment (adequate levels of performance). Students on work experience may not always be placed in active and authentically productive roles in workplaces (Smith and Wilson 2002). In most cases, they are expressly not to be remunerated, thereby excluding them from the reciprocal process of obligations. Hence, these students miss experiencing authentic work obligations, such as being expected to take responsibility for their actions and being given tasks whose conduct and completion have consequences for the individual and the workplace. This leads to the second difference.

Second, the bases by which the students engage in these two kinds of work experience are likely to be distinct, as are the likely outcomes of their participation. DETE (2000) notes that the reasons provided by students for participating in paid part-time work are often central to their identity and expression of personal agency. This work is often important to them and they exercise their personal volition in engaging in it. So the bases for their engagement in these different kinds of experiences are likely to be distinct. Moreover, students in work placement and work experience programs will not experience the financial rewards, obligations and status associated with authentic work activity, nor the need to contribute through the taxation system, pay union fees and medical levies. In this way, the co-constructive process of engagement across the two sets of experiences are very different and likely to lead to quite different learning outcomes.

Third, students' participation in paid work is usually for longer periods of time than work experience programs. Typically, in Australia, work experience programs are of one week's duration, and rarely longer than two weeks (Fullarton 1999). The continuity of experience provides opportunities for refinement of what is learnt initially and to encounter new tasks and interactions that reinforce and refine what has been learnt. This extended participation may also lead to a richer understanding of what is required for competent performance in the workplace. So the more authentic, engaged, richer and longer kinds of experience provided by paid work may result in quite different kinds of experience than those provided through short work experience programs where the activities and interactions are more likely to be substitute, not representative, of authentic participation in work. In these ways, the intensity, duration and mutual obligations that constitute experiences in paid employment are likely to make them distinct from those in work experience programs.

Given the above, informing students about the world of work can probably be best realised through engaging students in authentic work activities, such as paid part-time work. This is because they experience the obligations of being an employee in ways

that engage them in workplace activities and this permits them to understand the requirements for effective practice, the division of labour and the relationships that constitute the work practice. Importantly, these experiences should also include enjoying the benefits of paid work such as remuneration, paid leave and staff discounts and understanding the responsibilities arising from work such as belonging to a union, paying tax and contributing to health care. Those who have been subject to these obligations, requirements, division and organisation of work, relationships, benefits and responsibilities, can likely best understand them.

In summary, students' paid employment may provide experiences and engage students in work in ways that are unlikely to be secured through short periods of work experience. There are clear pedagogical implications arising from the integration of paid work experience with classroom experiences. The next section discusses these implications through a consideration of learning about the world of work both for students who engage in paid part-time work and those who do not. The central contribution is through advancing a scheme intended to assist students to describe and evaluate their work experiences.

Co-opting paid part-time employment as curriculum experiences

School students' experiences in paid part-time work potentially represent a rich source of learning about the world of work or working life beyond school. Moreover, these experiences are probably available freely in each senior classroom. About half the senior students in Australian high schools engage in paid part-time work, and this participation is well distributed across schools and across both genders. A national survey based on 1996 and 1997 data found that 44% of all Year 10 students were employed in part-time work (Fullerton 1999). In 2000, data from South Australia indicate that 56% of Year 12 students, 44% of Year 11 students and 42% of Year 10 students engaged in paid work (DETE 2000). This participation is slightly higher for female than male students and slightly higher for non-metropolitan (51%) than metropolitan (46%) students.

However, in co-opting and considering students' experiences in paid part-time work, it is important to be reminded that these are not intended as exemplars of careers that they should pursue. Certainly, there is a mismatch between students' career aspirations and the kinds of paid work in which they engage while at school (DETE 2000). The paid work is largely in retail store work and fast food outlets (DETE 2000) and is not to be seen as the specific focus for the educative activity. Instead, it provides a context to examine these work experiences and a basis through which to illustrate, illuminate and develop criticality about paid work and the obligations and requirements of work more generally. Experiences arising from participation in these jobs are to be used to provide a rich context and basis to

reflect upon the world of work. The goal is to assist developing critical skills that can be used by students to make informed decisions in their lives at work, which for many will constitute a major component of their adult life. Fullarton (1999) claims work experience programs are aimed to engage students in gaining first-hand experience of work and a broad awareness of the world of work as well as to develop and test career choices in the actual workplace. Therefore, the educational purpose is more than making a smooth transition from school to work; it is also about preparing students for decision-making about work and their participation in working life and, through this experience, to draw and reflect upon, to analyse and use as bases for informed participation in classroom based activities. However, although highly relevant and useful, it is insufficient for students merely to describe these experiences. What is required are pedagogic frameworks to assist students to describe, discuss and elaborate upon these experiences and to develop the means by which to reflect upon and analyse their experiences and those of their peers, in order to learn more about the world of work.

Understanding the world of work: Activities and interactions

One approach to understand working life is to use workplace activities and interactions as a means of describing and analysing the requirements for work and the bases for participating in work. These considerations are important as they can be used to identify and understand what is required for effective work performance as well as detailing how work proceeds. The rationale for this approach is as follows. A consideration of activities provides a basis to understand the kinds of requirements for work, and also that these requirements vary from workplace to workplace and are likely to change over time. These categories of activities and interactions were developed to understand contemporary work practices (Billett 2000) and to offer a means for describing and understanding the kinds of tasks and interactions undertaken at work. For instance, the use of technology has pervaded most workplaces (Barely & Orr 1998). However, it does so in different ways, even where the same kind of work is being conducted. Students as workers will experience sales terminals where information technology is used extensively. Some also have access to customers' details (e.g. video rental stores, pizza delivery outlets) that potentially extend the function and reach of technology. New technological innovations such as these can be used to assist understanding about the information that is available and required to operate the business. Students could then, for instance, consider the different uses to which technology is put and critically appraise the use and appropriateness of this information for commercial purposes. Similarly, students could describe what parts of their work are routine (always the same) and what parts are frequently new or changing.

In considering the division of labour, students might be encouraged to consider who is assigned the routine tasks, for what reasons and what are the consequences for workers who are assigned these kinds of task. Bernhardt (1999) has indicated the links between low status routine work and tenuous employment. For instance, the degree to which work tasks are routine often also indicates the level of task complexity and the levels of preparation that are warranted. The complexity and demands of work are commonly held to be linked to the level of pay the work attracts. However, some research indicates that lowly rewarded work can be as demanding and complex as much more highly paid work (Darrah 1996). Students might also be encouraged to consider the demands and complexity of the work undertaken by supervisors in supermarkets and fast food outlets and consider whether their payment and conditions seem to be appropriate and fair. In this way, they can begin to consider how the benefits of employment are distributed. Strategies such as these could be used to encourage students to describe their work and then, importantly, begin to analyse these experiences in terms of the work's contribution to the workplace and to workers' needs. In addition, the students might be prompted to consider and appraise the kinds of work they intend to pursue on leaving school, on the basis of what they and their peers have experienced through workplace experiences.

An analysis of workplace interactions can be used to understand the degree to which effective work practice is dependent upon interactions with others in the workplace and beyond, and also the scope and complexity of interactions. These categories of interactions elevate the analysis of work from a series of tasks to acknowledge its social nature, and how its requirements are embedded in social practices, cultural need and situational requirements (Billett 2003). This focus on interaction can include: (a) an understanding of the degree to which work is dependent on others; (b) how employees' status, standing and basis of employment influence the kinds of tasks they do; (c) the kinds of freedom they are afforded; (d) the kinds of interactions in which they are permitted to engage; and (e) how opportunities for advancement are distributed. There are also the kinds of tools, technologies and artefacts with which individuals need to engage in their work activities. These need to be understood in considering their participation in work. Whether these artefacts drive the work process or workers are able to exercise autonomy with artefact and tool use, it is important to capture in what ways workers have discretion over their work practice. The other dimension of interaction is how student workers engage in the workplace, as engagement and learning are a reciprocal process. The degree to which the employee is committed to the work they are engaged in and share its values and/or goals will also likely shape how they participate. Illuminating these factors may help understand the relationships that exist in workplaces, how the demarcations in workplaces are premised on either skills or interests, how opportunities provided to

individuals are distributed, how their work is supported, acknowledged and rewarded. That is, the degree by which we are encouraged to participate in the workplace, or have that participation inhibited in some way. Put plainly, how individuals are permitted to engage in work activities and the degree to which this engagement finds support in the workplace. This may be a key issue for most of us throughout our working lives. It has been shown that the participation of women (Bierema 2001), non-English-speaking workers (Hull 1997), part-time workers (Grubb 1998, Bernhardt 1999) have been restricted in particular ways. Therefore, and in addition, understanding the roles played by affiliations of workers, workplace cliques and group interests in the distribution of opportunities and activities that individuals are likely to encounter in the workplace is an important educational goal. These are salient dimensions of working lives.

In classroom settings, students can use these categories of activity and interaction to describe, elaborate and critically appraise the nature of the work they have been (or are) engaged in through use of the categories of activity and interaction referred to below.

Work activities and interactions

In the following sections, building on the discussions above, a framework for students to consider working life is elaborated. The framework is premised on analysing students' paid part-time work through a critical consideration of the activities and interactions that comprise that work. Work activities within work can be described in terms of their:

- **Multiplicity** – the range of activities expected to be undertaken as part of work practice.
- **Routineness** – the degree by which work activities are the same or constitute changing or novel demands.
- **Discretion** – the degree by which work activities demand a wider or limited range of decision-making and more or less autonomous practice.
- **Responsibility** – the degree by which individuals are responsible for their own work and that of others.
- **Intensity** – degree by which the intensity of work tasks demands strategies for managing the workload and undertaking multiple tasks simultaneously.
- **Complexity** – the degree by which work task decision-making is complicated by compounding variables and the requirement for negotiation among those variables.
- **Accessibility (opaqueness of knowledge)** – the degree by which knowledge required for the work practice is either accessible or hidden (Billett 2000).

In Table 1 questions are proposed that could be used to assist students describe and illuminate their paid work activities or those of others. In the left-hand column are the ways that work activities can be described. In the right-hand column are examples of questions that could be asked of students in classroom or project-based activities.

Multiplicity – range of activities you are expected to undertake.

- What is the range of the work tasks you are required to perform?
- What are the specialised tasks and are they valued and/or rewarded in particular ways?
- Who undertakes these specialised tasks? Why?

Routineness – the degree to which your work activities are routine or non-routine.

- Which tasks are required to be performed routinely – all the time?
- Who performs these tasks and why?
- Which tasks are required to be performed less frequently?
- Who performs these tasks and why?

Discretion – the degree of discretion you have in your work.

- Which activities are initiated and undertaken based on individuals' initiative?
- Which activities are initiated and their conduct monitored and supervised by others?
- Which workers are free to come and go, and which have to seek permission and/or record their presences and absences?

Responsibilities – the degree to which individuals are responsible for their own work and that of others.

- What responsibilities does your work entail?
- What responsibilities do you have for others?
- What is the scope of authority that is associated with responsibility?

Intensity – the intensity of the work tasks in which you engage.

- What situations demand the conduct of multiple tasks simultaneously?
- Are there times when work is less intense?
- What is the impact of intense work on the workplace environment?

Complexity – the degree to which work task decision-making is complicated by compounding variables and the requirement for negotiation among those variables.

- Which tasks demand reconciling a broad range of factors (e.g. different interests, considerations etc)?
- Who undertakes these difficult tasks?
- In what ways are they rewarded for this work?

Accessibility of knowledge – which knowledge required for the work practice is difficult to learn.

- What kinds of work requirements would be 'learnable' in the workplace?
 - What kinds of work requirements are not able to be learnt in the workplace?
 - What aspects of this work are difficult to learn?
-

Table 1: Describing and illuminating workplace activities

Beyond the kinds of activity in which individuals engage in workplaces, the interactions in which they participate are central to their work: how they are afforded opportunities to engage and what they learn through workplace interactions. Interactions within the workplace are describable in terms of:

- **Working with others (teams, clients)** – the ways in which work activity is premised on interactions with others.
- **Engagement within the workplace** – the basis of their employment.
- **Status of employment** – the standing of the work and whether it attracts support from the workplace.
- **Reciprocity of values** – the prospects for shared values.
- **Access to participation** – attributes that influence participation in the workplace.
- **Homogeneity** – the degree to which tasks in the work practice are homogenous. Similarities in work tasks may provide for greater support (modelling etc) for effective performance.
- **Artefacts/external tools** – physical artefacts used in work practice upon which performance is predicated (Billett 2000).

In Table 2, categories of interactions that can be used to describe and illuminate the work interaction in which the students engage are presented in the left column. In the right column are questions that can be used to encourage students to describe the kinds of interactions that occur in work and how individuals are permitted to participate in the workplace.

Working with others – the degree to which your work is premised on interactions with others (e.g. team work – working with others)

- What kinds of interaction with others are required for your work to be conducted?
- What determines how interactions with others are conducted in the workplace?
- What does team work mean in your workplace?

Engagement with the work practice – the basis on which you are employed?

- What are the consequences for you being a part-time worker?
- What responsibilities does your employer exercise towards you?

Status of employment – The standing of your work and the support and guidance it attracts

- What work activities are perceived as high status and why?
- Who undertakes this kind of work and why?
- What work activities are perceived as low status and why?
- Who undertakes this kind of work and why?

Reciprocity of values – the degree to which you are personally supportive of the work in which you are engaged

- What are the key values practised in your work? (e.g. quick service, friendliness to customers, getting them to buy regardless)
- Which of these are likely to be in conflict with (your/generic?) personal values?
- Which of these are likely to concur with personal values?

Access to participation – the ease with which you can participate fully in the workplace

- Are you able to engage in new and interesting tasks if you want to?
- In what ways are opportunities to participate in different and new tasks evenly distributed?
- In what ways is your participation in work inhibited?

Homogeneity – the degree to which your work is similar or different to what others do

- Does everybody do similar or different tasks in the workplace?
- Are there particular benefits or shortcomings associated with particular kinds of activity?

Artifacts/tools – the physical tools and workplaces artifacts (e.g. computers) you are required to use

- What interaction with tools, technologies and other workplace artefacts is required for workplace performance?
 - Do these artifacts and tools drive the work process or do you drive them?
-

Table: 2 Describing and illuminating interactions at work

This scheme is intended to support inquiry-based learning that positions the students as active participants and seeks to engage them in critical reflection on something about which they or their peers are well-informed. It aims to co-opt the students' experiences in a purposive and educative way. In using this scheme of activities and interactions, teachers might pose questions such as those suggested above in order for the students to describe, share and critically appraise their workplace tasks. The classroom discussions can also focus on the dual responsibilities that arise through paid employment, the reciprocal obligations of employers and employees. Students might also be asked to consider these questions in terms of other occupations, perhaps those of people they know (e.g. friends, siblings, and parents) and those they wish to pursue for themselves. Peer coaching might be used between or among students for describing, sharing and analysing their experiences. Different roles might be allocated depending on the kinds of contribution each can make. Certainly, structured presentations to peers might offer a useful way to assist the sharing of different kinds of experience in paid employment, and providing forums for comparison and further analysis. If the curriculum goals are to introduce and prepare young people for the world of work and consider options for tertiary education, such questions, and the accompanying classroom deliberations, should be useful in addressing these goals. Central to these reflections is the ability to draw upon, discuss

and share the outcomes of authentic work experiences with their peers. Even those students who are unable to engage in authentic work activities will likely benefit from the insights provided by their peers.

However, the kinds of approaches and kind of guidance required will likely differ widely across school settings, dependent upon students' experiences and their readiness to engage in this kind of curriculum task. Therefore, the framework proposed above will need to be tailored by teachers to suit the particular requirements of their students. It is a these propositions and predictions that will be evaluated in the forthcoming investigation (Billett 2004).

Co-opting paid work experiences

In summary, it has been proposed that access to authentic vocational activities in the form of students' paid employment offers a potent base to inform students critically about the world of work and to prepare them to make informed choices and decisions about and during their working life. These represent important educational goals of both personal and vocational kinds. To improve the potential for the realisation of these educational goals, it is necessary for work experiences to be linked to classroom-based activities that draw upon these experiences in order to understand the differing worlds of work and the development of the critical capacity to reflect upon work. So, school-based activities have an important role to play in drawing out principles from practice and developing, through shared experiences, insights into how these principles might be applied in different ways in different workplace settings. This may establish the basis for a robust understanding of work and working life. There is nothing particularly fanciful in the propositions here. The goal is to build upon what can be learnt through authentic workplace experiences and to realise potent educational outcomes through the integration of students' experiences in authentic workplace activities and those kinds of experience the school is best able to provide. It addresses a fundamental goal of education: to inform and prepare people about working life that will comprise much of students' post-school experience in their adult life.

References

- Ainley, J. & M. Fleming, (1995) *School-Industry Programs: National Survey 1995*. Australian Student Traineeship Foundation, Sydney.
- Anderson, J. R. (1993) Problem solving and learning, *American Psychologist*, vol. 48, no. 1, pp. 35-44.

- Anderson, J. R. (1982) Acquisition of cognitive skill, *Psychological Review*, vol. 89, no. 4, pp. 369-406.
- Barely, S. R. & J. E. Orr (1997) Introduction: The neglected Workforce, in S. R. Barely & J. E. Orr, *Between Craft and Science: Technical Work in US Settings*, Ithaca, NY, pp. 1-19.
- Bernhardt, A. (1999) *The Future of Low-Wage Jobs: Case Studies in the Retail Industry*, Institute for Education and the Economy Working paper No 10, Columbia University, New York.
- Bierema, L. L. (2001) Women, work, and learning, in T. Fenwick, ed., *Sociocultural Perspectives on Learning Through Work*, Jossey Bass/Wiley, San Francisco.
- Billett, S. (2001a) Knowing in practice: Re-conceptualising vocational expertise, *Learning and Instruction*, vol. 11, no. 6, pp. 431-452.
- Billett, S. (2004) *Informing Post-school Pathways Through Co-opting School Students' Paid Work Experiences*, National Centre for Vocational Education Research, Adelaide.
- Billett, S. (2003) Sociogeneses, activity and ontogeny, *Culture and Psychology*, vol. 9, no. 2, pp. 133-169.
- Billett, S. (2001b) Coparticipation at work: Affordance and engagement, in T Fenwick, ed., *Sociocultural Perspectives on Learning Through Work*, New Directions in Adult and Continuing Education, Volume 92, Jossey Bass/Wiley, San Francisco.
- Billett, S. R. (2001c) *Learning in the Workplace: Strategies for Effective Practice*, Allen and Unwin, Sydney.
- Billett, S. (2000) Performance at work: Identifying the smart workforce, in R. Gerber & C. Lankshear, eds., *Training for a Smart Workforce* (pp. 123-150), Routledge, London.
- Billett, S. (1998) Aligning workplace and school-based experiences, *VOCAL*, vol. 1, August, pp. 41-43.
- Billett, S. (1996) Towards a model of workplace learning: the learning curriculum, *Studies in Continuing Education*, vol. 18, no. 1, pp.43-58.
- Darrah, C. N. (1996) *Learning and Work: An Exploration in Industrial Ethnography*, Garland Publishing, New York,.
- Department of Education, Training and Employment (2000) *Survey of Student Participation in the Labour Force*, South Australia, 2000, Adelaide.
- Dewey, J. (1916) *Democracy and Education*, The Free Press-McMillan, New York.
- Engestrom, Y. and D. Middleton, (1996) Introduction: Studying work as mindful practice, in Y. Engestrom and D. Middleton, eds., *Cognition and Communication at Work*, Cambridge University Press, Cambridge, pp. 1-15.
- Fullarton, S. (1999) *Work Experience and Work Placements in Secondary School Education*, Research Report Number 10, Australian Council for Education Research, Camberwell, Victoria.

- Gauvain, M. (1993) The development of spatial thinking in everyday activity, *Development Review*, vol. 13, no. 1, pp. 92-121.
- Goodnow, J. J. (1990) The socialisation of cognition: what's involved?, in J. W. Stigler, R. A. Shweder & G. Herdt, eds., *Cultural Psychology*, (pp. 259-286), Cambridge University Press, Cambridge.
- Hull, G. (1997) Introduction, in G. Hull, ed., *Changing Work, Changing Workers: Critical Perspectives on Language, Literacy and Skills*, (pp. 3-39), CUNY Press, New York.
- Leonteyev, A. N. (1981) *Problems of the Development of the Mind*, Progress Publishers, Moscow.
- Malley, J., T. Frigo & L. Robinson, (1999b) Case Studies of Australian School-industry programs, Australian Student Traineeship Foundation, Sydney.
- Marsh, C. & G. Willis, (1995) *Curriculum: Alternative Approaches, Ongoing Issues*, Merrill, Englewood Cliffs.
- Newell, A. & H. A. Simon, (1972) *Human Problem Solving*, Prentice Hall, Englewood Cliffs, NJ,
- Piaget, J. (1966). *Psychology of Intelligence*, Adam & Co, Totowa, NJ, Littlefield.
- Pinar, W. F. (1980) The voyage out: Curriculum as the relationship between the knower and the known, *Journal of Curriculum Theorizing*, vol. 2, no. 1, pp. 7-11.
- Pusey, M. (2003) *The Experience of Middle Australia*, Cambridge University Press, Cambridge, UK.
- Rogoff, B. & Lave, J. eds., (1984) Introduction in *Everyday Cognition: Its Development in Social Context*, Harvard University Press, Cambridge, Mass.
- Quickie, J. (1999) A Curriculum for Life: Schools for a Democratic Learning Society, Open University Press, Buckingham.
- Shuell, T. J. (1990) Phases of meaningful learning. *Review of Educational Research*, vol. 60, no. 4, pp. 531-547.
- Smith, E. & L. Wilson, (2002) *Students' Views on their Working and Learning in the Workplace*, National Centre for Vocational Education Research, Adelaide.
- Stasz, C. (1999) Students' Perceptions of their Work-based Learning Experiences: A Comparison of Four Programs, American Educational Research Association, Montreal, Canada, April 1999.
- Sweller, J. (1990) Cognitive processes and instructional procedures, *Australian Journal of Education*, vol. 34, no. 2, pp. 125-130.
- Valsiner, J. (1994) Bi-directional cultural transmission and constructive sociogenesis, in W. de Graaf & R. Maier, eds., *Sociogenesis Re-examined*, Springer, New York, pp. 101-34.
- Valsiner, J. & R. van der Veer, (2000) *The Social Mind: The Construction of an Idea*, Cambridge CUP.

- Van Lehn, V. (1998) Towards a theory of impasse-driven learning in H. Mandl & A. Lesgold, eds., *Learning Issues for Intelligent Tutoring Systems, New York*, (pp. 31-32), Springer-Verlag, New York.
- Wertsch, J. V. (1998) *Mind as Action*, Oxford University Press, New York.