A portfolio model of learning: reframing assessment practices in a business cooperative education course

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INTRODUCTION

This paper examines a portfolio model of learning in the assessment of student workplace learning. Using an interpretivist framework, an holistic assessment model is outlined in the context of a co-operative education course within an undergraduate business degree. The model involves the key stakeholders contributing to student learning, development and assessment through a 'long conversation of informed dialogue'. In developing the model, attention is given to the prevailing positivist influences on assessment and the underlying assumptions made about 'truth' in learning. The paper argues that while *criterion referencing* may have progressed our assessment practices, positivist assumptions often underpin and limit our approaches to assessment in co-operative education. The model is presented within a social constructivist framework, arguing that cognitive and social development are key inter-connecting components of student's workplace learning and therefore must be recognised and incorporated into assessment.

BACKGROUND

Assessment of student learning in co-operative education is considered to be a challenging issue. This is largely because the learning is situated in different workplace settings, and is influenced by a myriad of contextual variables (Hodges, 2004). How we might respond to these challenges depends upon the epistemological framework we use. Typically, our approach, embedded in *positivist* thinking, is to quantify expected learning outcomes by identifying and subsequently measuring specific performance criteria against a set of standards. However, an underlying assumption of positivist thinking is that there is an absolute or objective 'truth', that we can in fact pre-determine: what the standards are (or should be) in each workplace; what this means for the quality of work demanded from our students and; the way we subsequently assess against these standards. In effect, criterion-referenced assessment is often underpinned by positivist assumptions. However, this provides an inadequate framework for assessing learning in co-operative education. Essentially, positivism is both deterministic and reductionist in that it assumes that all phenomena, including human phenomena, can be predictable and subject to a single law or generalisation, which is "both repugnant and unfounded" (Lincoln & Guba, 1985, p. 27).

ISSUE

A positivist approach in assessment will often lead us to focus on measuring what has already occurred and what is 'known' from that occurrence. This results in assessment

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practices that direct our attention exclusively to *current* learning and performance, while ignoring the impact such assessment may have on *future* learning. Boud (2000) argues that there is a need for assessment to focus on 'sustainability'. In effect, all assessment needs to do 'double duty' by ensuring a focus on current learning while also contributing to prospective learning (Boud & Falchikov, 2006).

A key challenge for educators is being able to meet the forces of public 'accountability' for *measurable* student outcomes, while at the same time enhancing students' current and prospective learning. While criterion-referenced assessment has helped us to move away from measuring student performance in relation to each other (through *norm-referencing)*, it still makes assumptions of there being an objective truth, and that this can be determined through the clarity and detail of the criteria. This has tended to lead us towards a never ending search for the 'holy grail' of criteria objectivity, only to find ourselves lost in a 'black hole' of specificity and uncertainty. In complex situations involving multiple elements (such as that described in co-operative education placements) criterion referencing is considered to be problematic and inappropriate (Gipps, 1994). Indeed attempts to reduce the full range of skills and competencies utilized in a professional practice to pre-specified, observable work actions or behaviours has been argued to be educationally unsound (Biggs, 2003; Bowden & Marton, 1998).

DISCUSSION OF MODEL

So how might we understand (and assess) the 'truth' of what students learn (or should learn) in the workplace in a way that also contributes to future learning? Guba and Lincoln (1989) argue that 'truth' is something that is gained by "consensus among informed and sophisticated constructors, not of correspondence with an objective reality' (p. 44). According to Fish (1980), consensus in assessment is reached through a dialogical process involving the 'interpretive community'.

Context for Intervention

An interpretivist assessment model is presented here in the context of a pilot intervention in a co-operative education course within a business undergraduate degree. The Industry Based Learning (IBL) course requires students to undertake approximately 150 hours work related to their study major. Each semester up to 50 students enrol in the course. Student cohorts tend to incorporate a wide range of ages, ethnicities and culture, with a significant proportion having English as an additional language. Students are supported in finding appropriate work placements and these will range from small businesses to large organisations, in both the private, public and community sectors. In effect, there is considerable variability in the type, size and nature of the potentially 50 or so organisations in which the students are placed. Due to the difficulty in sourcing workplaces to host IBL students, Unitec does not insist that students be paid. Students are supported and mentored during the placement period by academic supervisor (approximately 15-25 supervisors may be allocated in any one semester). Before going out on placement students attend a number of preparatory workshops provided by the course coordinator. Similar, preparatory workshops are provided for any new academic supervisors.

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Current practices involve three components. These include: students providing a set of personal learning goals (10% weighting); assessment of work performance using specified criteria and guidelines, involving the host employer, student and academic in a collaborative process (55% weighting); and students reflecting on their experiences by way of a *reflective essay* (worth 35%). The final grade is determined by an aggregation of weighted marks given for each assessment component (using an eleven point system from A+ to E).

Current practices are considered to be problematic for a number of reasons. These include: a lack of integration between the three elements described; questionable assumptions made about stakeholder understanding of the given criteria (and related performance standards);

potential for a conflict of interest to arise between the formative and summative elements; questionable *fairness* of the model given the variability in the work undertaken and the workplaces in which this occurs, the potential conflict when 'rewarding' performance between assessment and the employment relationship (especially if the student is working voluntarily, and the unequal 'power relationship' that may diminish the student 'voice' in the three-party collaborative assessment process; and questionable assumptions made about the level of precision accorded to performance in the 11-point grading system.

Portfolio Learning and Assessment

In response to the issues and concerns identified, assessment processes were changed and incorporated into a single 'portfolio of learning'. Portfolio assessment has been summarily described as "the evaluation of performance by means of a cumulative collection of student work" (Koretz, 1998, p. 309-334). Underlying this is the need for students to be involved in not only determining and collecting the evidence, but in also having some input into the criteria for selection and judging merit (Paulson, Paulson & St. Meyer, 1991).

The portfolio model adopted here is summarized in Figure 1. The model takes an holistic approach by making explicit connections between each of the learning outcomes, and between formative and summative methods. Each of the elements contained in the model is inter-connected, with each element informing one or more other elements. The other key feature of the model is that it is *evidence*-based. A brief description of the model follows.

The IBL portfolio requires students to produce evidence of their learning, measured against the course's four learning outcomes (see 'content' in Figure 1). Once a student secures their placement a 'learning agreement' is drawn up, which specifies the broad work objectives, together with the responsibilities of the three parties. Students are required to produce a number of personal and professional learning goals, similar to current practices. However, this now becomes a formative process, rather than a summative one. Use of student learning journals is now extended to include a focus on performance monitoring and the identification of strategies to enable students to answer the question 'how do I know that I am doing a good job?' The journal is used as a basis for the on-going 'long conversation' with the academic supervisor[1] a software tool[2] is made available to students, which can be used as a learning journal and as a portfolio.

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Upon completion of the placement a similar three-party meeting is arranged to discuss the student's performance and development. However, this now becomes formative in nature, with no marks allocated. Its key purpose is to provide feedback to the student on their performance, as well as to identify areas for future development. The minimum performance expectation is that students produce "work of merit and make a value-added contribution to the organization with some further refinement". How this might be interpreted by each party, particularly the host employer, is the student's responsibility. This is achieved by the student employing a range of strategies, during the work period, to identify the performance expectations of them.

To meet the evidential requires for meeting the *critical reflection* outcome, students are expected to draw upon the information they have collected in their learning journals. The feedback from the collaborative assessment meeting also provides valuable information for the student. In effect, students are asked to demonstrate 'double-loop' learning by reflecting upon their earlier reflections (in their journals) and by reflecting upon the feedback they received at the collaborative assessment meeting. The final part of the portfolio requires students to develop a summary of the skills and competencies developed during their placement. This is used to assist development of an updated CV as well as to develop a new set of personal and professional learning goals.

A competency-based assessment grading system is used replacing the current 11-point system. Outcomes can be a 'merit pass', 'pass' or 'not yet competent'. By submitting their portfolios, students are indicting that they believe they have produced sufficient evidence for a 'pass'. Therefore, gathering evidence for the portfolio is in fact a self-assessment process. Criteria for a 'merit pass' is developed through a negotiated dialogue with students in class. When submitting their portfolio, students must indicate whether they believe they have produced sufficient evidence to meet the 'merit pass' criteria'.

Academics are assigned to *validate* the students' self assessment. To avoid a potential conflict of interest, 'validators' cannot validate their own students' portfolios. A key aspect of the validation process is that a validator does not have the final say, should they arrive at a different grade outcome to the student. Instead, any portfolios not 'validated' will be reviewed by a validation team (of three to four academics) who will each read the portfolios and enter into a dialogue before arriving at an agreed outcome. The latter process is there to strengthen the assessment process, recognizing that different *interpretations* of the evidence provided may well occur. If as a result of this dialogical process, there is disagreement with a student's self assessment, specific, detailed feedback will be provided to the student indicating where further evidence is required. Students are then given a four week period in which to produce the additional evidence.

CONCLUSION

A different form of assessment is needed if students are to be prepared for the challenges and realities of work, and the need to manage their on-going personal and professional development. Performance should not ignore or be separated from learning or context. As Vygotsky (1978) reminds us, knowledge is a process not a product. The portfolio model described here is one response to the complexities and uncertainties inherent in the assessment of student learning in co-operative education. The model is premised on the

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view that assessment of student learning in the workplace cannot be precisely measured. It is argued that performance should be seen as a constructed reality among informed people. The portfolio assessment model described in the IBL course enables students to construct their own reality of what they have learned supported by relevant evidence.

When considered against Lincoln and Guba's notion of 'trustworthiness' in naturalistic enquiries (1985), we believe there is evidence to support the model's adequacy. The model has *truth value* (i.e., is *credible*) in that the stakeholders are informed participants who, through continuous 'long conversations' have been actively involved in the construction of the student's learning. The model has *transferability* (*applicability)* in that the conditions and context of the learning can be adequately described to enable a third party to determine *contextual similarity.* The model also has *dependability* in that the assessment validation process is a form of internal moderation, which acts as an 'audit' of the evidence produced within the contextual parameters described in the portfolio. Finally, the model can be said to provide for *confirmability* of data through the evidential nature of the portfolio and the triangulation that occurs through the integrated nature of the formative and summative methods employed.

IMPLICATIONS

The portfolio model presented here involves the student taking responsibility for their own learning and development. A more overt connection is made between educational assessment and workplace performance review and development, with host employers and academics act in a mentoring and supporting role, thereby contributing to the student's preparedness for professional practice and on-going development. The portfolio assessment model also performs 'double duty', firstly by recognizing and enhancing formative feedback whilst at the same time providing evidence for summative achievement; and secondly by commenting on current performance and learning whilst also contributing feedback to enhance future learning. Our engagement with this model, in the context of our own education and business communities of practice, will hopefully encourage others to consider how portfolios may contribute to student preparedness for the world of work within their own contexts.

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ENDNOTES:

[1] Students are encouraged to keep a 'private' and 'public' version of their journal, only disclosing to the supervisor their 'public' version

[2] FRAP Challenge

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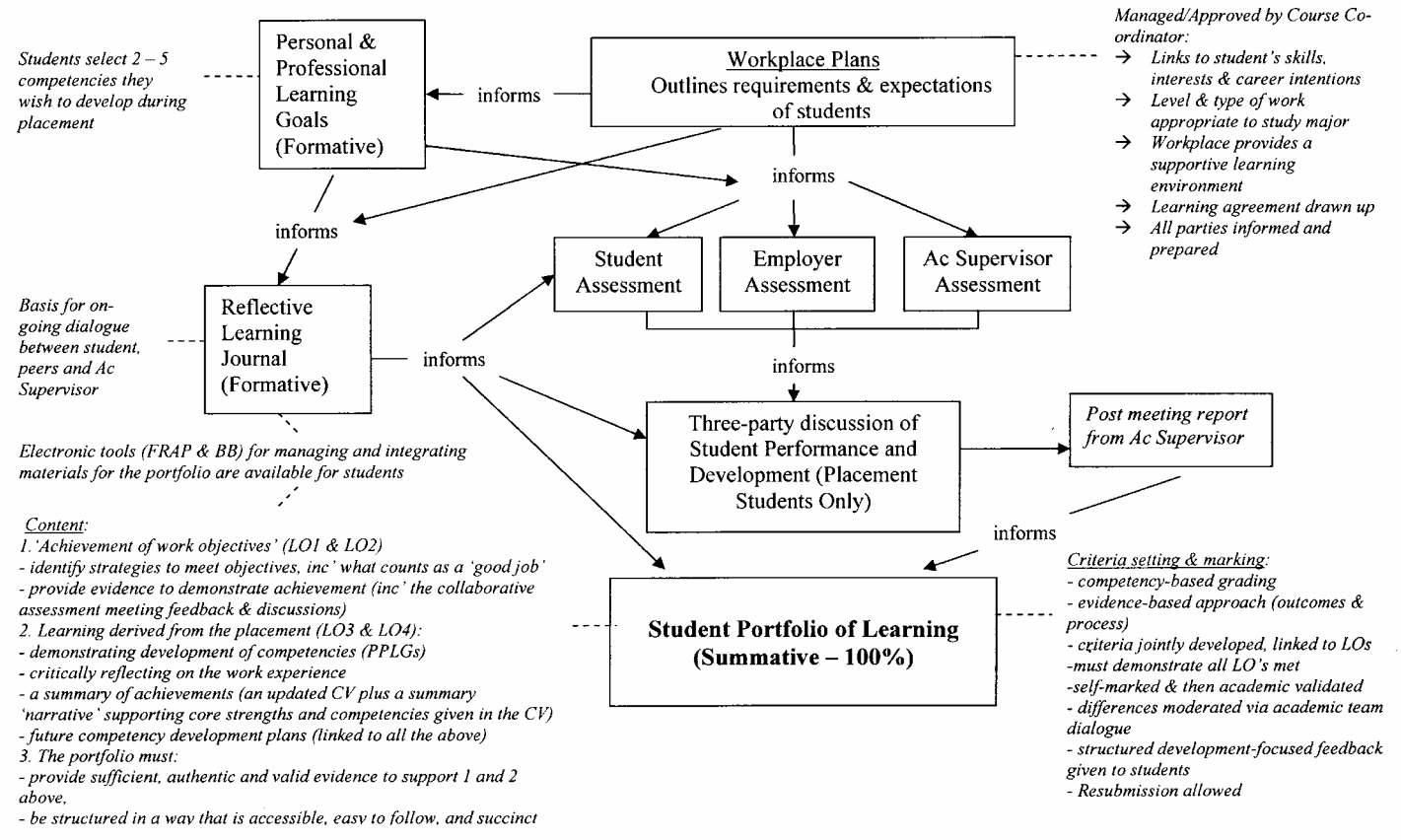
FIGURE 1
Industry-based learning portfolio assessment: an overview



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