Building blended delivery capability in vocational educators: creating sustainability through scaffolding

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Abstract

Engaging vocational educators to take the lead in developing blended learning practices that are 'fit for purpose' within an educational and workplace context is challenging.

This paper explores literature in the areas of scaffolding; zone of proximal development, mentoring and coaching. It describes the initial experience of a blended learning project team in implementing scaffolding learning principles to engage vocational educators in order to create sustained change that links clearly to teaching, learning and assessment within an outcomes environment.

The paper also provides some insights into the implementation of the Blended Learning Project (BLP) through the initiation and execution stages of the student (peer) projects. Through this type of practice the novice is always becoming the expert and the expert is always somewhat a novice. The greatest gain for this project is the development of process capability which is the cornerstone to sustained development in practice and expertise.

Keywords: Inquiry based learning, scaffolding, blended delivery, vocational education, blended learning tools, sustained change, building capability

Introduction

The current teaching and learning environment is more complex than ever. Engaging vocational educators to take the lead in developing blended learning practices that are 'fit for purpose' within an educational and workplace context is challenging. Appropriate blended learning tools that wrap around teaching, learning and assessment, yet span across diverse subjects, outcome levels (entry to undergraduate) and graduate capabilities –

and meet industry's expectations around 'near or real world' learning experiences is best developed through sustained practice.

The nature of the Blended Learning Project (BLP) is to provide a scaffold for vocational educators to explore possibilities to develop 'fit for purpose' teaching, learning and assessment tools. The project is structured to build process knowledge for the educators much like the concept of an apprenticeship. The exploration and subsequent application of the learnt processes is intended to drive a sustained changed in technological and pedagogical knowledge. Underpinning the BLP is a philosophy which focuses on teachers being supported to make decisions about practices that help raise student outcomes.

This paper reflects on the experience of a blended learning project team in implementing scaffolding learning principles, zone of proximal development (ZPD), mentoring and coaching to engage vocational educators from a number of subject areas – carpentry, automotive, business, work skills, education and social sciences. The vocational educators' skills and knowledge from a computing technology and pedagogical standpoint is varied. This has been addressed within the project through individualised 'step change' outcomes to influence realistic and sustainable blended learning capabilities for the vocational educators.

Scaffolding, ZPD, Mentoring and Coaching – a bridge 'not' too far

There are distinct links between the concepts of scaffolding, ZPD, mentoring and coaching. This section provides some definitions and discussion related to these concepts as they are applied in the BLP.

According to Sharma & Hannafin (2007) 'Metaphorically, scaffolding refers to expert support for a novice's learning' and that 'The expert gradually fades support as learner competence increases' (pp. 27-28). The relationship between the expert and the learner evolves into something akin to a mentor/ mentee as the locus moves from the expert to the novice. 'Scaffolding provides a framework to change complex and difficult tasks in ways that make these tasks accessible, manageable and within students' zone of proximal development (ZPD)' (Vygotsky, 1978; Rogoff, 1990; Hmelo-Silver, Chinn, 2007). To build sustainable capabilities within a blended delivery context in a vocational education environment the learner needs to have a balance of pedagogical; technological; industry facing and blended delivery capabilities. The expert support cannot come from one person alone moreover a team approach is needed for real sustainability of competencies.

Vygotsky (1978) defines ZPD as 'the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers' (p. 86). According to Wertsch (as cited in Rowlands, 2000) we should not concentrate on the *product* of development but, on the very *process* by which higher development is established. The development of change is in the *process* capability which is more important than the end-product produced. The learning process becomes embedded as does the learner capability, through the understanding of the process.

Zachary (2005) suggests that a 'learning partnership' should be established that is congruent with the learner centred mentoring paradigm, which is a shift from the mentor-driven paradigm; the mentor has become a 'guide on the side' rather than a 'teacher of the student'. The concept of a guide or mediator of knowledge provides a link to the development of *process* rather than the production of an end-product – much like the link between outputs and outcomes.

Jones & Vincent (2010) stress the importance of collegial mentors in ICT skill improvement and adoption. This is echoed by Samarawickrema, Benson & Brack, (2009) who assert that peer learning and online communities are effective for professional development, and by Tynan et al (2008) who assert that individual and group professional development creates enthusiasm and debate about pedagogy and results in academic staff taking the lead with the introduction of ICT supported teaching and learning. Sturko & Gregson (2009) likewise found that peers' reflection, collaboration and sharing improves practice and fosters professional growth. The collegial approach is further reinforced by Collis et al (2005) who add that collaborative sharing through facilitated participant interaction is vital and that professional development must have application to the learner's workplace. The line between mentoring and peer coaching becomes blurred in the BLP environment as the 'guide on the side' fulfills the role of the coach linked to the output (the completed projects - product) and the mentor enhances the outcome (sustained practice – process).

Successful professional development focuses on how and what students learn, the underlying teacher beliefs about their practice, and incorporates active learning, and collaboration, (Desimone, 2009). The staff development approach adopted in the BLP is one of mentoring, coaching and enabling, in order to support staff to transform their educational practice and cope with the future which will become a "curriculum for super complexity" (Barnett cited in Hannon 2008). The supportive approach enables staff to adapt and use the technologies themselves, working around technological limitations and builds collegial online communities, rather than forcing staff to adapt to the technology.

To effect a step change in process there is no 'one size fits all' methodology, rather it is a 'fit for purpose' toolbox. Sharma and Hannafin (2007) link scaffolding and ZPD through the 'provision of conceptual and operational frames for design and study'. They state that scaffolding operationalises Vygotsky's relationship between instruction and psychological development. (p. 28). They indicate that one provides the conceptual framework (ZPD) and the other a strategic framework (scaffolding). Mentoring and coaching further enhance this link by reinforcing the learner centred approach.

The project method (also used by Doherty & Cooper, 2009, and Robbie & Weaver, 2009) is designed to improve pedagogical practice by a fourfold process – situating the endeavour in scholarly literature, designing and implementing a strategy to address an identified need or change in practice, evaluating and then sharing the outcome. In the BLP success comes from the individualised mentoring, encouragement and advice, and the collaborative partnership offered by the learning community or community of practice (Wenger, 1998) afforded by the cohort approach. This overcomes the barriers discussed by Jones (2008) and adopts a similar approach which culminates in recognition and reward. Participants of this project anticipate a formal output such as publication or an item suitable for promotion.

The BLP mixes faculty from a number of subject areas, is cohort based and uses ICT to facilitate social interaction beyond the face to face sessions, adopting a blended model of delivery which uses the technology to introduce the technology for use (Macdonald & Poniatowska, 2011). There is also a strong thread of industry relevance underpinning the fitness for purpose of the project and its outcomes.

Building Capability within the Blended Learning Project Context

Moving to blended delivery and use of ICT requires three levels of support: for the individual academic, faculty or discipline backing and cross institutional initiatives so that faculty know the context they are working in; the resources available to them and where the use of ICT fits in the teaching and learning goals of the institute (Applebee, Ellis & Sheely, 2004). This BLP has the sponsorship of the Director Academic and is in line with the strategic direction of the institute. It is a whole enterprise approach (Marshall 2004, Correia et al, 2008) involving faculty identification of likely programmes to move to blended delivery, staff development provided by the BLP team, technical support from the BLP team and leveraging on the institute's infrastructure developments and establishment of remote campuses. Although somewhat imposed on them by the environment, the participating academics are becoming drivers in the e-landscape while participating in this professional development opportunity.

The close relationship between the BLP staff members and the lecturer participants has been beneficial in developing capability and confidence. Lecturer engagement is high and although apprehensive at the beginning, all have expressed excitement at the prospect of generating new opportunities to engage with their own students when they implement their projects.

Laying the foundation

Thus far there are at least 100 projects either in the initiation or execution stages of their lifecycles with a further 20 or more reaching the review and closeout stage. The process adopted is proving effective in supporting the staff to consider and plan to adapt their practice. It has though, become apparent that scaffolding practices need to include the practical as well as pedagogical aspects.

Emerging Findings

- Basic technology skill gaps quickly become obvious and need to be addressed sensitively
- A focus on the desired outcome for the learner rather than the tool is important
- The "student" experience is a challenging yet, valuable learning method for lecturers
- Alignment with industry expectations should underpin the development
- A sound of understanding of valid assessment practice is important when moving to a blended learning environment
- Supporting individual projects in a collaborative and collegial environment is effective for initiating a step change in practice
- A clear link needs to be established for the participants between the programme document, the course outcomes, the strategic graduate capabilities and their plan for implementing blended learning practices – the whole as a sum of the parts.

The importance of a structured approach to building blended learning capabilities is real – pedagogical practices are evolving as are the changing needs of the workplace and the growing gap between the technology skills between the educator and the students. Technology is one of the tools of blended delivery for vocational educators and often their greatest challenge in terms of using it to add value to the learning environment. This blended learning project has developed delivery through the lens of scaffolding; mentoring and coaching as an intended replication of creating sustained capabilities. The greatest gain for this project is the development of process capability which is the cornerstone to sustained development in practice and expertise.

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