Teaching and Assessment for Workforce Capacity Building

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Abstract – Organisations that sponsor staff for academic studies in order to build their workforce capacity expect their learning experiences and outcomes to be aligned with their business. There are challenges not only for facilitation of such learning, but also its assessment. Despite recent research on learning in the workplace the development of rigorous pedagogy to underpin work based learning and its assessment is still in its infancy (Brodie and Irving, 2007). This paper describes the teaching and assessment approaches negotiated for a cohort of worker-learners to develop their leadership capacity through a Graduate Certificate in Education (Executive Leadership) course. The course was delivered using an organisation centred curriculum framework that aligned the learning and assessment tasks to the functional roles of the learners and the strategic goals of their organisation. The framework transported the learning curriculum into the realm of the workplace and its context, exemplifying the integration of academic learning into the workplace.

Keywords— work integrated learning, workplace learning, workplace assessment, organisational centred curriculum, workforce capacity building.

INTRODUCTION

A booming 'knowledge economy' relies on highly competent 'knowledge' workers, hence universities are increasingly under pressure to align their curriculum to real work tasks in order to adequately develop such workers (Symes and McIntyre, 2000; Tennant, 2000). Consequently, there is renewed interest in work integrated learning (WIL) to provide learning experiences and outcomes that are more in tune with the real world. For this to happen, new partnership arrangements need to be forged between universities and organisations to actively diversify the study repertoire into the workplace and simultaneously improve outcomes for individuals and their workplaces.

This paper describes the author's approach to aligning teaching and assessment for real work outcomes using an organisation centred curriculum (OCC) framework. Four units of study were brokered for a Graduate Certificate in Education (Executive Leadership) course to develop leadership capacity of a learning cohort based in the Queensland Health and Community Services Workforce Council (Workforce Council). The paper begins with an overview of the OCC framework. The teaching and learning strategies, workplace support strategies, and assessment approaches embedded in the OCC framework are briefly described. The paper then goes on to summarise the preliminary outcomes of learning while developing the capacity of the cohort.

A FRAMEWORK FOR WORK INTEGRATED LEARNING

Work integrated learning (WIL) and work based learning are often conceptualised in similar ways (see Boud & Solomon, 2001 for some examples). In this paper, work integrated learning is conceptualised as a moderately tailored version of an existing course delivered to a cohort of learners in a particular worksite. Strategically, its design focuses on outcomes that lead to the achievement of the organisa-

tion's strategic goals, yet maintains the academic standard and quality. Various arguments (eg. by Billett, 2001; Brown, 1998; Symes & McIntyre, 2000; Billett and Boud, 2001; Bryson, Pajo, Ward and Mallon, 2006) in favour of the workplace as an effective learning environment provided justification for embedding the leadership development program within an OCC framework.

A partnership between the university and the Workforce Council was forged to develop a boutique curriculum. Four units packaged for the course were: *Leadership for Change; Politics of Diversity and Identity; Managing Knowledge in Organisations;* and *Changing Agendas in Leadership.*

The OCC framework was founded on the organisation's strategic goal, philosophies and culture to simultaneously meet the needs of the individuals and their organisation. Accordingly, the strategic goal of the organisation was positioned at the core of the framework, surrounded by its philosophies and culture. Organisational culture is usually described as the taken-for-granted values, underlying assumptions, expectations, collective memories and definitions present in an organisation (Cameron and Quinn 1999, p. 14). These elements of the organisational culture impact on how new ideas are viewed in an organisation and also influence their interpretation for practice. At the next level, the university learning units surrounded these structures (organisational goal, philosophies and culture). The teaching and assessment strategies that emerged from the unit objectives were designed to influence changes that traverse through the organisational and its environmental cultures, at the same time respect its philosophies and values.

The learning cohort of twelve staff formed a critical mass which can sense, construe, analyse and respond to changes that will help the Workforce Council achieve its strategic goal. The worker-learners contextualised what they learned to initiate and also facilitate a gradual change process. A partnership with the academics and coalition with staff across the organisation allowed them to collaborate and negotiate the bridge between theory and practice, and create new knowledge that added value to their organisational services and strategic goal.

The success of work integrated learning in this instance hinged on interactions between the disciplinary area, professional practice, and the workplace goals. The implementation of the OCC framework required special attention to design appropriate pedagogies. It was premised on the notion that learning would be influenced by, and in turn influence, the strategic direction of the organisation. Therefore, the content needed to be relevant to the organisation - that is fulfil the requirements of both the intended and emergent strategic plans – and at the same time be relevant to the learners, with obvious application to their functional roles. Furthermore, the learning strategies needed to suite the learning preferences of the cohort. The designers interpreted learning strategies as the combination of the learning processes and activities, and the assessment tasks to demonstrate that learning had occurred. The arrangements for an OCC framework were deliberated against the university policies, systems and structures.

TEACHING AND ASSESSMENT STRATEGIES

The learning strategies and the assessment tasks had to be appropriate to achieve learning objectives and this configuration is termed constructive alignment (Biggs 1999). As a basis for constructive alignment, Biggs' (1999) Structure of Observed Learning Outcome (SOLO) model and Delahaye's (2005), Hierarchy of Learning Outcomes (HLO) were employed. The SOLO model proposes aligning learning strategies and learning outcomes and describes how a learner's performance grows in complexity when mastering a topic. The HLO provides the designer with two important indicators – the type of content that the learners need to cover and, secondly, the most appropriate type of learning strategy that should be used. The design of the learning activities was therefore founded on three governing values:

> (i) The andragogical principles of
> - o Work centred problems and issues
> - o Learning that acknowledged and utilised the work experience of adult learners
> - o Acknowledgement that self-evaluation should be combined with evaluation by others. Rogers (1983) suggested that self evaluation is more important than evaluation by others.
>
> (ii) Overtly situated learning within the strategic directions and cultural context of the host organisation.
>
> (iii) Individual learning embedded within the normal workplace tasks, processes and goals to concurrently achieve learning outcomes and organisational goals as well as develop sustainable knowledge reservoirs.

Facilitation of Learning

In acknowledging the work experience of the adult learners, the course was facilitated using a blended approach, comprising internet based delivery and face-to-face onsite consultation. The worker-learners were well acquainted with electronic communication and utilised a well designed information and computer technology system available at the worksite. The learning materials were posted on the university's course website, allowing the cohort to access and interact with the materials from their work or home computers and at a time of their own choosing. The cohort determined the content and structure of the face-to-face consultations. Individuals were required to send requests for specific information or topics/issues to be discussed at least two working days before the session to allow for adequate preparations.

The objectives of the first unit (*Leadership for Change*) and those of the individuals (based on their work projects) were aligned to the organisational objectives interpreted from its strategic goal. As a result of this alignment, the unit on *Leadership for Change* offered development of expertise in three areas:

- Investigating and Analysing Organisational and Environmental Cultures (Themes = the changing nature of organisations, organisational culture, organisational values).
- Accountability (Themes = ethics, relationship building, accountability and organisational improvement).
- Change Management (Themes = communication, the change process, leading the change process).

According to the Hierarchy of Learning Outcomes (Delahaye,2005), such learning outcomes need more self-directed learning strategies, experiential learning and problem based learning, thus reinforcing the need for blended learning based on questions initiated by the learners.

Individuals self-selected themselves into one of three teams, each focusing on one of the areas. The use of teams was reinforced by the writings of Knowles (1998), Revans (1988) and Wenger (1998) who emphasised that adult learning is a social process. Each team shared three features: a common domain of knowledge to be developed; a community that cares and takes responsibility for the domain knowledge in the organisation; and shared practice to effectively interpret and apply their domain knowledge. In this way the communities or teams became nodes for exchange and interpretation of their domain knowledge. These features are characteristic of communities of practice (Wenger, 1998). The nodes transpired into a useful knowledge management tool that supported and stimulated learning within the organisation.

The intention of the teams was to develop in-depth knowledge and understanding of their area of study and to explore the diversity of applications across various aspects of their functions. In other words, the learners were expected to operate at the relational level of the SOLO model (Biggs, 2003) so that they would be able to "compare/contrast, explain causes, analyse, relate and apply" (p.48). They researched and updated their knowledge base on developments both internally (within the organisation) and externally (nationally, internationally and beyond their industry). Members of the groups read, summarised and critically analysed the assigned readings and additional articles they sourced. The assessment tasks (described later in this paper) were designed to generate more learning and required them to state how the ideas could be applied to the functions of the Workforce Council. Regular staff meetings and professional development workshops offered them opportunities to share, reflect on, and discuss concepts and ideas with others in the workplace. In this way they retained their knowledge domains in "living" ways.

At the beginning of the semester, each learner selected a work project to apply and integrate knowledge from the three areas: investigating and analysing organisational and environmental cultures; accountability; and change management. They set their personal objectives, the performance measures and indicators to measure progress and outcomes.

The strategies described above are common practice in normal university teaching however, have particular significance in the context here and highlight alignment of university learning to real work outcomes. Traditionally, when such activities are conducted in lecture rooms, the authenticity of alignment and application of knowledge is left to the individual learners. The validity and feasibility is often unverified, mainly because that is an assumed role of the worker-learners. The alignment and application discussed in this paper reflects real and productive outcomes for the cohort and the Workforce Council.

Learning Support in the Workplace

The learning process and experiences of the cohort were supported by features of expansive learning environment identified by Fuller and Unwin (2004). In an expansive learning environment, learners participated in multiple communities of practice including those external to the organisation (its regional staff, networks and stakeholders). They engaged in diverse tasks, knowledge bases and experiences to encourage learning. Their learning was acknowledged, supported and formally valued as organisational capability. Workplace pedagogies, described by Billett (2001), were made available and utilised by the cohort. The pedagogies included questioning and getting explanations, observation and listening, interacting with others, accessing documents in the workplace, learning from daily work activities through practice. These pedagogies were supported by workplace affordances that included fortnightly team meetings; internal communication systems (oral, written and electronic); time allocation for group learning; opportunities to solve problems; systemic knowledge of the workplace; shared responsibility for learning and achieving organisational goals; and timely access to assistance from others, including from the organisational liaison person and the academics. Each team met regularly to plan, review and complete their activities. Some of these meetings were held in the workplace during working hours and others were informal meetings after work, often outside the worksite.

Assessment

There were two major assessment tasks for this unit, each equivalent to 50%. Each of these tasks needed to demonstrate constructive alignment (Biggs 1999) and, again, the SOLO model (Biggs 2003) and the Hierarchy of Learning Outcomes (Delahaye 2005) proved useful here.

The first task was team based and involved two deliverables (25% each) - oral seminars and a resource folder. Each group presented a seminar on their area of study. The presentations needed to demonstrate deep analysis and application of theoretical concepts to the work tasks – the relational level of SOLO (Biggs 2003) and the deeper levels of the Task, Relationship and Critical Thinking categories of the Hierarchy of Learning Outcomes (Delahaye 2005). After the seminar, each group collated the summaries of the readings and added it to the resource folder. The summaries and analysis from each group were presented in a format allowing the remaining two groups to gain a basic understanding of the themes within the area of study and also to apply the theories and learning into the context of their work. The resource folders also included tools, websites and other usable materials for other staff in the organisation, their stakeholders and networks. The tools included definition of key terms, guidelines, theoretical and conceptual frameworks, evaluation items, surveys, checklists, to-do lists, relevant legislations, regulatory frameworks, case study examples and benchmarks. A single set of these was deposited in the central office of the Workforce Council.

The second assessment task was completed individually and was based on personal learning objectives. It included two aspects: oral seminar and written essay. Each learner presented a case example that demonstrated the application of their understanding gained from the study unit content. During the seminar there was much discussion around the diversity in the application of the new knowledge in the context of their work. Interestingly, they began linking the concepts and ideas beyond their projects, to other areas of work in the organisation. This linking took the learners beyond the relational level into the e*xtended abstract* level of the SOLO model (Biggs 2003). The presentations were assessed by peers and an academic panel. Engagement of peers in the assessment and evaluation process facilitated the validation process. This was useful because while the academic panel could assess the applications from a theoretical perspective, they were not fully conversant with the socio-cultural contexts of the Workforce Council to validate the feasibility of those applications. After the seminar each learner wrote a reflective essay (2000 words) on their presentation.

Although these assessment strategies sound familiar and are commonly practised in university settings, their contribution to organisational outcomes was substantial. The preliminary outcomes are summarised below.

PRELIMINARY OUTCOMES OF THE ORGANISATIONA CENTRED CURRICULUM FRAMEWORK

The research team of academics involved in the development of the OCC framework received a small grant from the Queensland University of Technology to evaluate the framework. The evaluation was conducted at the completion of the first study unit on *Leadership for Change*. Data was collected from interviews with ten learners who volunteered to participate in the study, and a focus group of six interviewees. Transcripts of each interviewee were coded as WFC 001 – WFC 010.

The findings on the evaluation of the framework itself will become a forthcoming publication. In this paper, preliminary outcomes of the first unit is summarised to draw attention to the results for individuals and their workplaces when teaching and assessment adequately integrates university units with real work and learning is situated in the workplace. The teaching and assessment approaches for an OCC framework contributed to both, individuals as well as the Workforce Council in four main areas: development of knowledge capital, development of skills, cultural change in the workplace, and improvements to organisational systems. The most immediate and greatest change was evident in the new learning culture.

Development of Knowledge Capital

The learning cohort acquired new information and knowledge about the theories on leadership, change management and workforce development. One of the first activities to complete the assessment task required the learners to conduct an environmental scan of their workplace, stakeholders, networks and industry. During this exercise they learnt about the socio-cultural elements and their significance for the Workforce Council's functions and services. The cohort also critically reviewed their internal organisational culture. Their analysis alluded to several enhancing and limiting socio-cultural aspects that impacted on the leadership of the Workforce Council. Their search and review of literature in these topics identified benchmarks and case examples to appraise their current policies and practices, as well as plan for new directions in order to improve their organisational functions. They shared these during formal and informal interactions with members of the cohort and other staff. The Executive Director of the Workforce Council described the place of new knowledge capital saying "… it's not a physical product, but it is actually an intellectual product that's now built into, in lots of ways, the conversation and the way decisions are made." The new knowledge capital of the individuals and collective teams became a powerful tool for initiating change and motivating more learning.

Development of Skills and Confidence

As well as enhancing their learning skills in web and database searches, use of computer softwares, setting objectives and performance measures and indicators, and academic writing, they also refined their critical and reflective thinking skills. The cohort gained an appreciation of critical and reflective thinking and their significance for everyday work practices. For instance, in determining the relevance of the new knowledge and understanding of theories and case examples, they engaged with colleagues across the organisation. This type of active learning made them critically analyse, challenge and contest their own belief systems, current practices and cultures. As a result they initiated improvements to their overall services. The cohort also developed skills in oral and written presentation of well researched proposals for change, justifying their positions with relevant theories and literature. Their new skills boosted their confidence in leading change for the reforms that the Workforce Council was responsible for. Statements from two interviewees reflect common views about enhanced confidence amongst the cohort members.

I think the intrinsic value of what we've done is very high. People's sense of self worth, their sense of an impact, they have something quite significant to contribute to the organisation. (WFC 001)

I think what it's done is given me more confidence in my communication with others generally and that also means the stakeholders. The fact that I am more au fait with change management and the issues in change management has helped me deal with issues as they've come up in a better way. (WFC 006)

The knowledge capital, skills and confidence enhanced the learning culture in the Workforce Council.

Cultural Change

As a community of learners the cohort gradually refined their motives and intentions of learning making the subjective relevance of the unit content more explicit. Consensual validation during informal discourses, group seminars and the symposium (formal discourses) resulted in common interpretations and validation of the application of new knowledge and understandings. These discourses were facilitated largely by the nature of relationships that the members of the cohort developed over the period of the course. The open nature of group dynamics during the seminars and symposium diminished scepticism among their colleagues, and they valued the rigour of academic research and standards. A team approach had an infectious effect and promoted systems thinking. They implemented internal systems and processes to share and maintain the knowledge and skills base, as well as sustain a learning

culture through regular staff development activities. One interviewee described her perspective on the cultural change as follows:

> I would have to say the big thing at an organisational level is probably the connectedness among colleagues, and the sense that you have been empowered from the process, that you can actually step forward and have the ability to critically analyse certain things and always question work processes. So it's giving us the capacity to work in a continuous improvement manner. (WFC 006)

The nature of discussions at various forums about what they learnt, and frequent references to the content of the course units indicated a high level of interest and energy. Such a level of energy in a cohort is ideal for organisational change. However, more planning and resources are needed to accommodate other creative outputs of the cohort.

Enhancement of Organisational Systems

The resources and tools developed as part of the learning and assessment activities were used to refine internal policies and processes. For instance, the current communication protocols and tools developed for engaging and interacting with networks from the various diversity groups were revised in light of new understandings about learning styles of people from the different diversity groups, and cultural sensitivities. A change in approach to intentional invitation is expected to make engagement with networks more inclusive and genuine. The management of diversity issues at the Workforce Council is now an integral part of all aspects of the Workforce Council's everyday business.

When describing the approach under an OCC framework the Executive Director said:

"When people undertook that study, there was a practical application of what they were learning immediately, not just in terms of the assessments that they might undertake, but immediately, how they can better work with groups, to lead and support groups and to develop people within groups, to lead and support groups."

His comments and the preliminary outcomes illustrate that the learning and assessment activities were well aligned to the functional roles of the individual learners and the Workforce Council's strategic objective of providing high quality services to the health and community services industry.

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