PA 032
Academic credit and professional development for VET practitioners through authentic work based projects
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Abstract:

This paper reports on a research study that was undertaken with VET staff in a dual sector university. The study involved a cohort of fifteen VET practitioners who negotiated authentic work based projects as part of their professional development. The projects were included into each practitioners work plan. Each participant was enrolled in the project component of the Graduate Diploma in Industry Education and Training (GDIET) and each received academic credit for one or two subjects based on their project work. Initially there was one basic design for the projects. The agreed outcomes for each project involved writing up a project report, compiling a portfolio of work-related artefacts and products, and a presentation. This research study also follows this design, modelling self-study practitioner research with an emphasis on producing work-related artefacts and products as an outcome. The findings of the study include: identifying five variations on the initial basic design; development of a template for writing up proposals based on sound project management; development of a basic report template; the development of an RPL statement and policy; along with the documentation of vignettes. These vignettes stand as exemplars for reference by future VET practitioners wishing to take up the RPL option.

Introduction

This paper reports on an approach to professional development through authentic work-based projects that was undertaken by teacher practitioners. These practitioners work within the VET sector of a dual sector university and received academic credit for their work-based projects into a postgraduate qualification. Getting due recognition for work-based projects is not unusual within the VET sector. Recognition of prior learning (RPL) has been a feature of this sector for the past decade. However, despite enormous efforts particularly within the dual sector universities, receiving due credit into undergraduate university programs still occurs in an ad hoc manner. While, credit and recognition into postgraduate programs remains an even greater rarity.

The GDIET

The Graduate Diploma of Industrial Education and Training (GDIET) is an eight subject postgraduate program that is run at a dual sector university in Melbourne. The GDIET has been tailored to the needs of adult and vocational education and training practitioners. Many of the participants in the program are teachers that are employed in a range of VET institutes and providers across the VET system. A number of the subjects that are offered in the GDIET are considered core subjects. Amongst these are, Principles of adult learning, Contexts of adult learning, Instructional design and Assessment and reporting in VET. Other subjects like, Facilitating learning in the workplace, Modes of delivery, Learning and cultural diversity, the Workplace

practicum, and the Negotiated minor and major workplace projects (equivalent to two subjects) are all electives.

Each subject is equivalent to 12 credit points; a common formula for each subject is five days of attendance across a semester. Due to work commitments of teachers, these sessions are often run on Saturdays, from 9am to 4pm, two to three weeks apart. Mostly there are two assessment requirements for a subject. The first is a minor assignment usually an essay of approximately 1400 words, or an exercise or activity that is considered equivalent. The second is a major assignment of approximately 3000 words, or some task that is considered equivalent. Most lecturers consider attendance for the group processes and classroom interactions to be as important as the assessment tasks, though they do not assign a formal mark for these aspects.

All participants are eligible to apply for recognition of prior learning for any subject that they believe that they have satisfied prior to enrolling. The subject that the most participants apply and receive RPL for is the Assessment and reporting in VET subject. Participants who have a Certificate IV in Workplace Assessing can apply for credit transfer. Credit transfer is different to RPL in that credit transfer occurs when the participant has completed an equivalent subject within an accredited program or qualification.

RPL, on the other hand, is granted for a subject when a student can provide evidence that very similar knowledge and skills have already been developed through life or work experience to those that are developed through completing a particular subject. Working from the list of learning outcomes for a subject, a student can build up a portfolio of evidence to support their claim. Most VET practitioners would argue that RPL is as objective as any assessment process within VET. As it is the subject of the same principles and practices of assessment. However, RPL can have a subjective or at least, an interpretative aspect, with regard to decisions about the matching of evidence to learning outcomes, and assumptions about the near and far transfer of learning.

Subject exemption and credits through RPL and credit transfer are capped at a maximum limit of 50% of the subjects within a program. This means that within the GDIET four of the subjects can be obtained in this way and the remainder must be completed through the normal coursework requirements. Besides the subject on Assessment, there are three subjects that have been designed with project work in mind. These are the Negotiated minor workplace project, the Major workplace project (equivalent to two subjects) and the Workplace practicum.

Work-based learning

In the early 1990s, there was a push to expand the provision of vocational education and training beyond the campus based delivery within institutions and includes on-the-job training in actual workplaces. As workplaces changed and restructured, there was a need to provide skills training and upgrading to an existing mature age workforce. With this push came an argument for work-based learning. On the one hand experienced VET practitioners needed to learn more about work-based learning because more were being asked to swap from their college classrooms to the shopfloor and the lunchroom as the environment and context where they were to provide

training programs. In fact, some interesting research indicated that rather than training for the sole reason of providing access to credentials, it was considered more powerful to align training to programs that involved organisational change, (Sefton, Deakin & Waterhouse 1994; Sefton, Cooney & Waterhouse 1995; Virgona et al. 1998; Waterhouse 1996 & 1999; Sefton 2000).

Offering training on-the-job provided many opportunities for authentic and powerful learning that was specific to the processes, practices and environment where the learners worked. This provided learners with a familiar learning context where they had first hand practical knowledge. Amongst the pedagogical and curriculum implications of this for VET practitioners were that generalisations could give way to concrete specifics. VET practitioners could utilise these authentic environments to customise and contextualise their programs to the realities of the workplace. Similarly, there could also be a strategic alignment between the realities and requirements of the work role and the learning activities with the assessment tasks.

Worker/learners working alongside creative educators in these work-based programs achieve impressive results through authentic innovative projects. These programs often involve showcasing opportunities where the worker/learners achievements are presented to stakeholders. These often include a presentation of the work-related projects. Interestingly, these showcasing occasions provide significant bridging moments and intersections to occur between VET providers, teachers, worker/learners, managers and other work-based stakeholders and employees.

The dual mandate: strategic alignment in professional development

The word 'strategic' is used within the management literature as a term to denote that there are hierarchical levels of strategies needed throughout an organisation. Further, co-ordination and alignment is needed between specific objectives of a smaller business unit and that of the vision and more general aims of the whole organisation.

The problem with some professional development programs and initiatives is that many don't effect any real change. They are not strategic. Therefore a question for professional development people is 'how can new learning from professional development result in substantial and sustained change? In addressing this issue with regard to professional development in VET, the emphasis on work-based learning has become strategic and the preferred approach. The federal and state funding agencies want accountability and this is delivered through evidence of actual change.

When VET teachers were required to implement competency-based training across the system, federal and state funded initiatives flowed, but not so that VET practitioners could attend university-based lectures on CBT. Many university lecturers were openly hostile to CBT and its history. At the very least, a number of university lecturers would have presented 'the debates around CBT'. Rather, the funding was tied to the doing of projects that actually implemented competency-based programs. This ensured that implementation was foremost on the agenda. To support this strategy, action learning was used to underpin all of these projects. This initiative was known as CBT-in-action.

Similarly, when training packages were introduced to assist with actual implementation, federal and state monies were made available specifically for professional development projects that strategically aligned and advanced the specific objectives of the training system (ie. Framing the future). In more recent times, to assist the take up and develop of flexible learning across the system, funds have been made available for projects that make this happen (ie. Learnscope).

It is now generally acknowledged that people learn to do their work through a mixture of approaches. The three streams that are most often cited as the way that people develop their work-related learning are, structured off-the-job learning experiences and activities, structured on-the-job experiences and activities and also unstructured on-the-job experiences, (Billett 2001, Henry et al 2001). Amongst the on-the-job experiences are the development opportunities that occur through engaging with routine and non-routine situations and activities. At the forefront of these are work-based projects.

Learning through authentic work-based projects

Development opportunities arise in almost every workplace in the form of authentic work-based projects. As a person does a project they are engaging in a wide range of routine and non-routine activities these enable the project worker to build upon and expand their current skills, knowledge, understandings and capacities. It is learning in-situ. As Boud & Solomon (2001) argue, 'work is the curriculum'. Workplace projects are always emergent. The context of the workplace means that projects are moulded to what is possible at any given time and place - they often involve the negotiation and compromising of some ideals.

With regard to the work of VET practitioners, a development opportunity through a work-based project may take the form of when an existing curriculum based teaching program has been superseded by the introduction of a new training package. In such instances teachers will be called upon to develop new teaching, learning and assessment materials for a new program that does align to the training package. Implementation of the auditing process, as part of the requirements of the AQTF, ensures purposeful engagement by VET staff.

Practitioner research

Learning through project based activities and doing practitioner research is very similar. A common form of practitioner research is action research. Cherry argues that action research has three streams. These are action, knowledge and learning. Zuber-Skerritt (2001) suggests that the distinction between action learning and action research can be dropped and instead can be incorporated into the notion of what she calls, action learning/action research, or simply, ALAR. The point is that there is a development of public understandings or knowledge, and there is simultaneously a personal dimension to the learning. These occur or are assisted by group processes and discussions.

Reason (2001) has explored the idea of first, second and third person inquiry. The first person being personal considerations and learning. Second person research is the immediate group involved in the inquiry, what they learned and it has a social or

public dimension. Third person research has two aspects. Initially it is the meta-concerns about the research process itself. The other aspect is that these discussions may have ramifications for a wider audience than those interested in a particular research project. These too, are public. Rowland (2000) has described a similar framework of the personal context, the shared context and the public context.

Project based learning has been described by Kilpatrick (1918). It also has a long history in the German didactics tradition. Recently, Poell et al, (1998) have researched project-based learning in organisations. Within VET in Australia, the work of Sefton et al, (1994); Sefton et al, (1995); Virgona et al (1998); Sefton (1999), Henry (2001) & Roszkowski (2001), continue to be foundational. Many have argued for reflective practice to be included and developed as an approach that can be used to enhance the learning and professional development process. Accordingly, reflective practice is a common ally to project-based learning and practitioner research.

The VET practitioners that were the participants in this research study used practitioner research as their preferred methodology, though this was often informal. Often this occurred in conjunction with project management, reflective practice and aspects of action, work-based, and project based learning.

The components of the project model

It was agreed from the outset that the work-based projects that were undertaken by these participants were to culminate in three final components. The work-based project was to have outcomes that were to be useful in the context of the actual workplace. This was named as a portfolio of artefacts or products. The form and contents of the portfolio was left open to individual negotiations. It could take the form of a report with recommendations for the workplace, a collection or folder of human resource materials, teaching and learning materials or texts for an educational program, or even a marketing strategy.

The second component for final assessment was to be some kind of document, text or report that discussed the processes behind the project, the research and the learning. Such a document would be where participants would explore their own learning through the processes of reflective practice. The third component was a presentation where they could showcase their work to others. Like the second component this gets participants thinking through issues of representation around what they were doing and what they were finding. Moon (1999) argues that it is through this representation both written and oral where the reflection process is further intensified resulting in even deeper and more significant learning.

Documenting each project

Discussions about direction, form and approach were held with the participants over the course of the project. Some projects went over a semester and others over the whole year. Some participants had three discussions with the researcher; others meet four times and some five. At these meetings the processes being used were reviewed, progress was noted and immediate goals set. Some projects continued to shift around and unfold in relation to their context. Mostly these changes were beyond the control

of the participants. Both the researcher and the participants documented the projects and the associated processes separately.

Table 1 provides a brief indication of the participants work role and a very brief description of their project.

Table 1 : Summary of participants and projects

Id #	Teaching area	Brief project description	GDIET Subject enrolment
M-001	Business	Customised curriculum, teaching, learning and assessment materials on Finance for overseas client group - taught in Asia.	TCHE 1078 Major Workplace Project (24 credit points)
F-002	Health and Bio sciences	Development of a companion text that uses Australian terms for nursing and health sciences area (to accompany textbooks that are sourced from the USA)	TCHE 1075 Minor Workplace Project and TCHE 1073 Workplace Practicum (24 credit points)
F-003	Industrial design	Development of teaching, learning and assessment resources for a topic of Platonic forms	TCHE 1075 Minor Workplace project (12 credit points)
F-004	Business - IT	Development of teaching, learning and assessment resources for a subject called Organisational development in IT	TCHE 1078 Major Workplace project (24 credit points)
M-005	Electrical/ Electronics	Redevelopment and rewrite of Module NE 31 Workbook and resources	TCHE 1075 Minor Workplace Project and TCHE 1073 Workplace Practicum (24 credit points)
M-006	Electrical/ Electronics	Development of a pre-course program for the Subject 4 for Sergeants course in Electrical and Electronics	TCHE 1075 Minor Workplace Project and TCHE 1073 Workplace Practicum (24 credit points)
M-007	Chemistry	The development and teaching of a program on food chemistry to ADF personnel	TCHE 1078 Major Workplace project (24 credit points)
M-008	Telecom- munications	Development of a unit on Communications systems including Program documentation, teaching, learning and assessment resources	TCHE 1075 Minor Workplace project (12 credit points)
M-009	Fashion & Textiles	Marketing teaching programs and services to the TCF & L Industry	TCHE 1073 Workplace Practicum (12 credit points)
M-010	Electrical/ Electronics	Research project into army apprentices and their use of computers and computer skills	TCHE 1075 Minor Workplace Project and TCHE 1073 Workplace Practicum (24 credit points)

M-011	Aerospace	Development of program related documentation including a curriculum design project that identifies a teaching and learning pathway	TCHE 1078 Major Workplace project (24 credit points)
F-012	Business - IT	Development of teaching, learning and assessment resources for two subjects in Certificate IV in I. T.	TCHE 1078 Major Workplace Project (24 credit points)
M-013	Health and Biosciences	Mentoring program for online teaching and learning in Myatherapy	TCHE 1078 Major Workplace Project (24 credit points)
M-014 & M-015	Automotive Mechanics	Exploration and analysis of software for the development of teacher/students workbooks and resources	TCHE 1075 Minor Workplace Project (12 credit points)

Analysis of the projects

From the analysis of the projects, five variations have emerged on the original basic design. The first of these is a project that is directly associated with or derived from an internal professional development program.

Variation 1: based on an internal professional development program

Participant (M-009) undertook their project as a component of a strategic internal professional development program that is run annually by the university to develop and encourage 'innovation and entrepreneurship'. In this case, a vignette has been written of the project component in that program. This captures the way in which it was undertaken and the recommendation has been made that others who do this internal professional development program and complete the associated work-based project can get an automatic credit for one subject within the GDIET. The option to give credit for two subjects remains with this to be determined on presentation of the components of the actual project. This decision is made on the basis of the work value and comparison with the requirements of two of the core subjects.

Similarly, the project undertaken by participant (M-013) was an extension and follow up to another internal professional development program on the Distributed Learning System (DLS). This internal program consists of four modules of which the first two develop basic understandings for using blackboard for student interaction. Modules 3 & 4 involve program participants developing an actual learning site using blackboard. This is considered to be a work-based learning project. This participant's project of mentoring other staff in the use of the DLS has been written up and credit provided. An offer has been made to extend this principle to Learnscope projects in 2003.

Variation 2: a research project

Participant (M-010) teaches Electric and Electronics at the Army Training Centre. He designed a small-scale research study. The study was guided by a specific question to determine the level of use and skills with computers by army apprentices. This participant designed a questionnaire, collected data, analysed the data, wrote up a

report with graphical representation of the data, discussed the analysis and developed findings and conclusions.

Variation 3: an evaluation project

Participants (M-014 & M-015) worked together as a team and conducted an evaluation project. They developed selection criteria for software use for web-based publishing of student workbooks. They visited the organisations of other users of the various softwares in order to gauge its suitability. They road tested selected software and made recommendations for purchase to their departments based on their study.

Variation 4: design and development of teaching, learning and assessment materials

Of the fifteen participants in the study, this was the popular project focus and design with nine participants choosing projects that fall into this category. Decisions to do these kind of projects was based on a belief by three of the participants that a subject that they were directly involved with should be improved and organised more thoughtfully.

Three others were associated with the development of new materials because of conversion and changeover from obsolete curriculum based programs to the implementation of training packages. One of these in the area of Aeroskills involved the identification of 'a learning pathway/curriculum' that is an innovative approach to the implementation of training packages and results in a case study that should be disseminated broader for this purpose alone.

The final three projects in this area were associated with the development of customised programs for external clients. One of which was a cohort located offshore and the two other programs for Australian Defence Force personnel.

Variation 5: is a hybrid mix of a number of the above basic designs

The project by participant (F-002) is an example. On paper this project appears to involve the development of a companion text to accompany nursing textbooks sourced from the USA that uses different terminology. The way in which this participant has undertaken this project has meant that the selections and complex decisions about terminologies has occurred through highly consultative processes, using focus groups and individual and group interviews.

Interestingly, it became necessary to restrict this participant's work to contain the effort to a double subject credit. This gives rise to the finding that there is a balance needed between the inquiry process, the production of the project portfolio and the writing up of the reports. When any one of these components, blows out to be larger than expected then flexibility and judgement need to be shown to re-balance these ensuring that they have a combined effort that is equivalent to the number of subjects that credit is being sought. In this case the report component was cut down substantially.

Participant (M-010) in his development of a student workbook in the area of Electrical and Electronics diagrams and codes also used a hybrid approach. This participant

designed and conducted an evaluation project, using questionnaires and informal group discussions. The responses in his research identified the strengths and weaknesses of the existing materials and informed him on where his efforts needed to be concentrated with the redevelopment. Changing contextual issues made this highly emergent.

Interestingly, six of the fifteen participants enrolled and completed a negotiated workplace project (that is equivalent to two subjects). Three participants enrolled into the negotiated minor workplace project and one completed their project when enrolled in the workplace practicum. Both of which are equivalent to one subject. Interestingly, four participants initially enrolled into the minor workplace project and as their project emerged it also grew in magnitude. These participants then decided to enrol into the workplace practicum thereby gaining a two-subject credit for their project. Taking this logic it could also be possible to grow a project and using the options available, a participant could gain credit equivalent to a three or four subject sequence.

Findings and implications

The findings of the study include the identification of five variations on the initial basic design. A template for writing up project proposals has been development based on sound principles of project management. Templates have been developed for use with each of the four basic report formats depending on which is most applicable. Also an RPL statement and policy for recognition of work-based projects has been written up and will be forwarded to the Advisory committee of the GDIET for ratification. Each of the projects has been written up as vignettes. These stand as exemplars indicating to other practitioners that may also be considering being prospective participants in the GDIET, the scope of what is possible, without being definitive. These are available on the web and in a booklet with information on RPL, work-based learning and project design and management.

The participants in this study each enrolled into the various subjects of the GDIET as noted in the previous table. The RPL policy associated with the GDIET states that participants in this program could apply and gain RPL without actually enrolling into a particular subject. In accordance with this, and as a consequence of this research, in the future participants in the GDIET will not have to enrol or pay for the subjects, which they seek to obtain academic credit in through completion of a workplace project. VET practitioners can review the vignettes of practice associated with this study and based on similarity, comparability, and work value, can put a case for RPL for the equivalence of one, two, or three subjects. In this way, this research has provided a pathway for future VET practitioners.

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