

Case studies of excellent practices and ideas in vocational education, training, teaching and learning

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Abstract

Does the VET sector have a unique pedagogy?

The aims of this project were to:

- Provide teachers with examples of innovative teaching practice in the VET sector through the use of case studies; and,
- Examine the pedagogical aspects of these case studies for further work in the theoretical development of a VET pedagogy.

The project provides a current picture of developments in teaching and learning in the VET sector. It also captures the views of practitioners who are leading the field in innovative teaching and learning.

The case studies describe innovative teaching and learning practices where teachers are able to balance industry workplace needs and educational system requirements to ensure that the learner's needs have the best possible chance of being met.

Some of the practices described in the case studies illustrate what many teachers would consider traditional teaching methods; however, the practices are applied creatively to enhance the learning process. Other case studies describe the up-take of learning technologies that enhance every opportunity to meet the learners' needs. The studies also depict a range of learning approaches and environments. They are drawn from a variety of VET organisations across Australia and internationally. All case studies contain an evaluation component of the teaching strategy.

Within all the case studies there are themes reflecting the VET focus on:

- real or authentic workplace problems, and
- the provision of opportunities for learners to question and reflect on the skills they are acquiring for application within this context.

Other themes that emerge include:

- an emphasis on the learner having more responsibility for their own learning (self directed)
- a recognition of various pathways for learners
- a focus on collaborative learning partnerships with teacher, student and workplace, and
- increased workplace practice opportunities either through placement or simulated environments.

Introduction

TAFE NSW Educational Strategy Group commissioned the Institute Teaching and Learning Innovation Centre (*ITALIC*) at Hunter Institute – TAFE NSW to undertake a process of examining innovative teaching practice in the VET sector. The case studies are part of a larger project involving three parts.

Part One – a comprehensive literature review providing an analysis and synthesis of literature relevant to the development of VET pedagogy (ies), an annotated list of key literature and ideas for sourcing relevant emerging literature in the future. Robyn Dryen of Schofield & Associates undertook this part.

Part Two - case study field work and analysis of practices in TAFE NSW Institutes and other sites to provide a current picture of developments in teaching and learning and capture the views of practitioners who are leading the field in innovative teaching and learning.

Parts 1 and 2 of this project form the foundation and rationale for any further work on VET pedagogy and teaching and learning through the TAFE NSW Educational Strategy Group.

Part Three - will involve the development of a pedagogy or pedagogies for VET or a pedagogical framework which can be further developed on an ongoing basis as theory and practice emerge.

Part Two, which this paper outlines, was completed by case study fieldwork between April and June in 2003 and provides the basis for a preliminary analysis of practices and projects in TAFE NSW Institutes and other sites. The practitioner case studies will hopefully provide other VET teachers with ideas for enhancing the innovation of their own teaching and learning practices.

Literature review

The aims of the literature review (Part 2 of the project), was to provide teachers with an overview of the most recent developments in thinking about teaching and learning in post-compulsory education and training. The review identifies ideas, which are contested, so that VET teachers can participate in the rich debates that develop professional practice. At an individual level, it is hoped that by understanding the ideas that underpin the research and debates, every teacher can select the most appropriate approach for any particular teaching and learning situation, and moreover, feel confident about innovating to better meet the needs of their learners.

The review and analysis was completed during April-May 2003 and encompasses a review of recent literature relevant to a discussion of VET pedagogy. It includes both Australian and international research published online and in traditional print form. Materials were gathered from the following sources:

- ❑ databases of educational, psychological and business abstracts
- ❑ education and training specific databases including VOCED, and EdNA
- ❑ the World wide web using meta-search engines
- ❑ papers and proceedings from recent relevant conferences

Research method

Methodology

The case study project used a two-stage process of recruitment of participants and the selection of case studies.

Recruitment process

A dedicated web site www.hunter.tafensw.edu.au/showcase/casestudies was promoted to 3,500 leaders and teachers in the VET sector nationally and internationally. The URL for this web site was sent via email to key groups across Australia. The groups included past and present Flexible Learning Leaders, Flexible Learning Managers and Coordinators and Research centres. The project was also promoted at four national conferences and directly with TAFE NSW Institute Directors. (Illustration 1 is a flow chart describing the process of selection.)

The web site described the project in detail. Interest in the project was generated through the web site's on-line forums and by promoting a community of practice amongst respondents. People accessing the web site could nominate either themselves or a colleague to participate in the case study project if they met the following criteria:

- The person taught a VET program, or had direct contact with learners
- The program used an innovative approach to the facilitation of learning
- The teaching practice includes an evaluation process or there are plans to do so
- A positive difference to learning can be demonstrated
- The innovative teaching practice can be described so that other teachers can use the practice.

A database of 89 possible case study participants resulted from these recruitment processes.

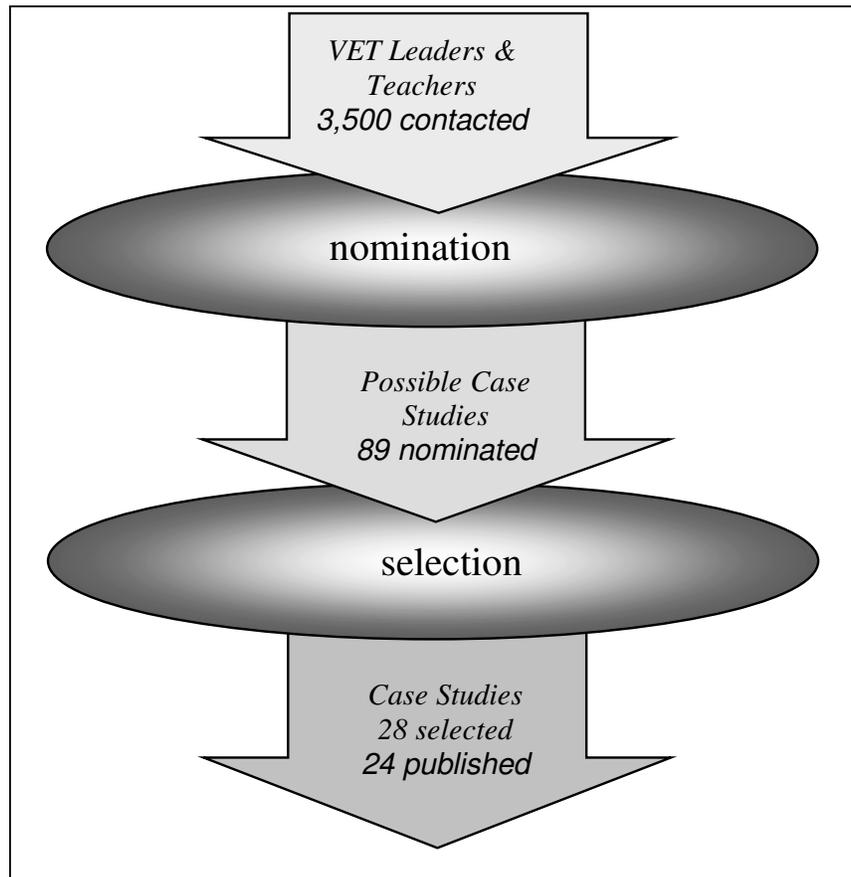
Selection process

Every person on the database of 89 possible case studies was telephoned and invited to participate in the interview process. The interviewer checked if they met the inclusion criteria and a brief description of the innovative teaching practice was described on a standardised scoring form. These scoring forms were then submitted to a panel of three independent reviewers who were members of the Strategic Committee for Innovative Learning at Hunter Institute. The reviewers were blinded to any identifying details of the participant. The maximum score possible was 19.

The average score of the three reviewers for each participant was calculated and further interviews were conducted on all participants with a score above 11. Where there were more than two case studies for an organisation represented in the selection process, the highest scoring two case studies were included. The project team sent out the interview questions to each person who was selected during the review process and either used the self-completed questions or a telephone interview to describe the case study. The case study was sent back to the participant for comment and approval before being published. There were 28 case studies selected and 24 case studies included in the final report.

Both the initial scoring form and the full interview questionnaire tool were tested prior to implementation with a representative group of local and interstate teachers.

Illustration 1. Flow chart of the selection process.



Findings and discussion

Diversity of the Case Studies

Twenty-four case studies were selected for this project. The courses described in these case studies are being delivered through 17 TAFE NSW Institutes and 9 other registered training organisations. They represent 14 industry areas. The industry groups are:

- Business (3 case studies)
- Children's services (3 case studies)
- Community services (2 case studies)
- Information technology (2 case studies)
- Student and Staff Services (2 case studies)
- Transport (2 case studies)
- Access and General Education (1 case study)
- Arts (1 case study)
- Engineering (1 case study)

- Food Processing (1 case study)
- Health (1 case study)
- Hospitality (1 case study)
- Maritime (1 case study)
- Media (1 case study)
- Property services (1 case study)
- School Services (1 case study)

Training Packages represented by the case studies include:

- Automotive Industry Manufacturing (AUM00)
- Automotive Industry Retail, Service & Repair (AUR99)
- Business Services (BSB01)
- Community Services (CHC02)
- Film, TV, Radio & Multimedia (CUF01)
- Food Processing Industry (FDF03)
- General Construction (BCG98)
- Health (HLT02)
- Hospitality (THH02)
- Information Technology (ICA99)
- Metal & Engineering Industry (MEM98)
- Music (CUS01)
- National Public Services (PSP99)
- Property Development & Management (PRD01)

Increasing Student Options for Learning

The case studies describe diverse and innovative approaches to teaching and learning. Courses are designed to enable the learner to have improved access to educational experiences that are usually difficult to organise and logistically almost impossible. This was evident in the following courses:

- The design of the maritime course, enabling students to maintain contact with the teacher whilst at sea.
- The childcare course that has developed a community childcare centre to enable students greater access to observing children and interacting with parents.
- The NSW Ambulance Service who have developed on-line simulation to enhance clinical decision-making during medical emergencies.

Strong Partnerships

The importance of partnerships with industry and with community was central to the structure of course design and maintenance in a number of case studies. Such examples include:

- The Arts & Media Faculty at Western Institute based at Broken Hill run arts courses for Aboriginal communities. They work with Aboriginal people promoting peer-to-peer learning particularly encouraging elders to work with younger artists. Their work is exhibited regularly at the Regional Art Gallery and some sculptures are permanent fixtures in community parks promoting local Aboriginal culture

- The up-skilling of School Service Officers (SSO) at the South West Institute of TAFE in Victoria provides a system of tailoring individual learning pathways and the recognition of prior learning to increase SSO qualifications and career opportunities. The program is delivered in the workplace and is driven by an industry need.
- The Hunter Institute hospitality course, where they have strong links with chefs who work with the teachers to ensure continuous and consistent learning for the students. The teachers go to the workplace and chefs come into the classroom.

Innovation in Teaching

Innovation in teaching and learning was a central characteristic in all of the case studies. The innovation was developed to improve responsiveness to students needs, strengthen the quality of the learning experience to reflect industry needs and increase learning abilities. Some examples include:

- The use of motivational emails to improve course completion for students undertaking the Property Services qualification
- The role of real projects to learn about project management such as with business students who developed a virtual conference and the community service students who developed and managed community-based projects in collaboration with community groups.
- Many of the participants commented on the importance of reflective practice amongst teachers and it is through this reflection that innovation and the drive to create improved teaching and facilitation in courses is developed. There is a general move toward more holistic approaches to educational delivery and assessment.

Student Choice and Variety of Learning Modes

All of the case studies integrate a number of learning modes and provide students with choices. This was considered to be an important aspect of the teaching described by the case study participants. Most of the teachers stated the need to have a range of options that accommodate individual learning styles. Many of the courses often had a combination of the learning modes such as:

- buzz groups or tutorial groups,
- group projects,
- work based projects,
- on-line learning and activities,
- paper based workbooks with email,
- fax and phone contact,
- individual learning programs,
- simulated work environments and
- workplace experience.

Peer learning was a central role for both students and teachers. The teachers believed that it is the combination of learning modes and the ability to give students choices that leads to higher course completion rates and greater levels of student satisfaction. There is a clear shift towards the individualisation of learning outcomes and pathways.

Teacher/learner relationships

Most of the case studies included reference to the development of personal relationships between learners and teachers. These relationships were fostered in many ways, including:

- motivational email messages
- phone calls within the context of total online delivery
- discussion between employers, students and teachers
- students being invited to act as project/program “staff”.

In all cases there seemed to be evidence of a real empathy between teachers and learners.

Project and question-based learning

Project and question-based learning figure prominently in many case studies, including:

- Kangan Batman Institute’s training in automotive factories
- Illawarra Institute’s work with Indigenous elders, and
- Western Sydney Institute’s flexible delivery of Administration Services.

Up-front assessment and RPL

Many case studies used some form of “up-front” assessment or RPL (Recognition of Prior Learning) to evaluate the students’ situation and in some cases to individualise learning paths or plans accordingly, for instance:

- Western Sydney Institute’s workplace delivery of food processing uses an up-front assessment approach followed by targeted training to cover the identified gaps.
- Southern Queensland Institute’s approach to apprenticeships in engineering and construction incorporates negotiation of individual training plans with apprentices and employers.

Other significant approaches

- “Learning to learn” was cited as an important generic skill requirement.
- Teachers Online Hub and Pathway-In and Pathway-Out matrix (South West Institute, Victoria)
- Community projects were used in several cases to give the students’ learning broader relevance and acceptance
- Many case studies used technologies such as eLearning as a “learning option”, rather than the underpinning component of course delivery.

Evaluation of Courses

Most of the evaluation of the courses described in the case studies was through student feedback and standard student outcome data. The majority of the participants believed that their evaluation approach needed improving. There was not always the time and systems available to formally undertake regular evaluations of the courses. All of the student feedback was integrated into the quality improvement cycle and all of the participants used the results of course evaluation to make changes in the course delivery and content.

Positive Difference to Learning

During the case study interviews, teachers were asked what positive differences to learning were demonstrated by the innovative methodology employed. Some of these differences were outlined as-

- increased enthusiasm for learning
- increased learner confidence and self-esteem
- increased number of employment opportunities for students
- improvements in workplace safety
- an increased connection to the community and with peers and
- consistent approaches to delivery and assessment

Project Limitations

These cases studies represent a relatively small number of VET teachers' work and although the request for nominations to participate was broadly promoted nationally this was done primarily through a web-site and email and relied on existing lists of leaders and innovators in the VET sector. Therefore, there is an under-representation of case studies from more remote parts of the country, specific groups who may not have access to the Internet and states with smaller populations such as Western Australia, Tasmania and the Northern Territory.

Some participants who were selected from the first stage of the culling process could not participate in the second stage of documenting the case studies because of their competing work demands and the tight timeframe for completing this project.

The case study selection process used external members of the project steering group who were not privy to any information about the case study other than that on the scoring sheet. However, the initial invitation to participate in the process was often through self-nomination as there are no benchmarks to clearly define leaders of excellent practice it is therefore impossible to determine the scope of innovation and excellent practice nationally.

Caution needs to be used in making generalisations of national trends. Interpretation of this information is limited by only those reporting their practice.

Conclusions

At a Glance: The Bigger Picture:

In terms of delivering innovative and excellent learning, several “big picture” trends have become apparent from the case studies that impact specifically on the learner, teacher and resources (in the widest sense) and the need for these to interact effectively.

The case studies documented, indicate the following significant points of reference for those wishing to pursue innovative and excellent teaching and learning practices:

The Learner

- Increased individualisation of learning options (including learning tracks, pathways, contracts and plans)
- The need for self-directedness, specifically an aptitude for, and emphasis on the underpinning training to achieve this

- Peer learning that has encouragement of as a strategy amongst student groups and cooperation such as the teaming of young & old students
- **The development of generic and transportable skill-sets.**

The Teacher

- Peer learning (learning from colleagues) that promotes encouragement as a strategy amongst teachers, the development of Communities of Practice (CoP) and the co-facilitation of courses (particularly in eLearning)
- Partnerships and formalised understandings (eg. Memoranda of Understanding) negotiated by teachers on behalf of their organisations and to benefit of employers and learners
- Holistic approaches that often based around workplace or simulated “real-life” situations
- Development of skill-sets appropriate to twenty-first century (C21) communications technologies and practices, including increased usage of ICT (Information and Communication Technologies) within face-to-face contexts
- Reinvestigation and reinvigoration of “traditional” teaching skills facilitated through increased professional development opportunities associated with building C21-appropriate skill-sets
- The need to be able to “let go” of teacher-centric paradigms and place the learner at the centre of the learning equation
- The development of a pastoral care element (for students) that is common amongst teachers identified as being innovative and excellent practitioners.

The Resources

- The ease of developing and formalising partnership and “understanding” arrangements is crucial to success, particularly in workplace learning areas
- The development of toolsets can help facilitate more teachers to become involved in innovative and excellent practices such as assessment, feedback, evaluation, benchmarking, validation and innovation
- Supportive infrastructure is required, particularly in administrative and technological terms
- A common element amongst the case studies is a student / case management approach and this may be facilitated by supportive infrastructure.

The Future?

Some potential future developments have been hinted at through interviews and discussion with practitioners during the course of this research. These are yet to be substantiated by use, evaluation and evidence to any great extent, however it is anticipated that at least some of them will impact significantly on future innovative and excellent practices in VET.

Such developments include:

- RLOs – Reusable Learning Objects
- RLI – Reusable Learning Information (information at atomic level)
- Learner management systems, the integration with a client-centred approach
- Content management systems
- Re-contextualisation of competence to fit larger holistic paradigms
- Increased importance of community (both physical and virtual) in all learning contexts

- The need to explore new learning modes more in-tune with X and Y generation learners (particularly those termed “digital natives”). This could possibly be based on intuitive problem-solving and multitasking as evidenced by digital game interaction
- Potential for a shift toward sustainability-driven, rather than productivity-driven models of learning.

Acknowledgements

These case studies could not have been developed without the generous input of the various practitioners who have shared with us their passion for learning and focus on enabling the best opportunities for their students to learn and achieve successful outcomes.

References

Part One (Literature Review) and Part Two (Case Studies) can be found at-
<http://www.hunter.tafensw.edu.au/showcase/casestudies/>

or
<http://www.voced.edu.au>