

## **Presentation for AVETRA Annual Conference**

### **The new millennium the ‘same worker’? New pedagogies for workers in Industry coping with completing competency-based learning.**

Lesley Wemyss, Lesley Wemyss Training Consultancy, Queensland

#### **Abstract**

The system of National vocational education in Australia continues to disadvantage some workers. Vocational education as it has been designed has a one-size-fits-all system, which in fact does not distinguish between the many milieu, educational achievements, and cultural differences between employees in industry. There are few models for an effective pedagogy, taking into account all of the above as well as the fact that training must be delivered twelve hours a day, for several days in a row.

This paper examines the delivery of innovative pedagogy necessary for workers in a far north Queensland mine who need to access vocational training successfully to ensure that their careers progress within the Industry. It is reported that in occupations with a higher level of cognitive skills (such as supervisors) around three in five stayed in their jobs, because of accessing of post school education (Cully, 2003). This paper will identify the key issues that need to be addressed for this delivery to ensure positive outcomes, for these workers. These include:

- ✍✍ Release of people from work roster
- ✍✍ Briefing of management re commitment to outcomes
- ✍✍ Participants preparation for the learning process
- ✍✍ Facilitation expertise
- ✍✍ Development of innovative delivery strategies
- ✍✍ Resource implications
- ✍✍ Mentoring strategies to maximise the learning
- ✍✍ A variety of assessment methods
- ✍✍ Monitoring and review of the outcomes

This innovative pedagogy meets all these issues, and has significantly increased successful outcomes for this diverse group of vocational education participants. As well, satisfying important elements of the participant’s organization, which compliment the organizations business structure, respond to change within the business and create a learning environment (Dawe, 2003).

#### **Introduction**

This paper draws on six years of experience of delivering training to workers in a far north Queensland mine, and using an action research methodology to identify the effective pedagogy for meeting the many milieu, educational achievements, and cultural differences between employees in this industry. As well as delivering effective training for twelve hours a day, also meeting the workplace shift requirements.

This practical, flexible, and innovative pedagogy was developed through reflexivity of the process and listening to managers, participants and other practitioners involved in the process. The issues of effective pedagogy have been examined from a wider perspective than just the material to be delivered, but the involvement of the audience and the relatively extreme conditions of delivery. Pedagogy that was less effective soon was discarded, for these more effective methods.

This paper identifies nine key pedagogical issues, that have significantly increased the success of vocational training in this mine, under the conditions of training offered, that is twelve hours a day. In detail, each issue is investigated to demonstrate how training can be effective and give these miners successful outcomes leading to security in their respective supervisor roles. As well the paper highlights how, this in turn can compliment the business.

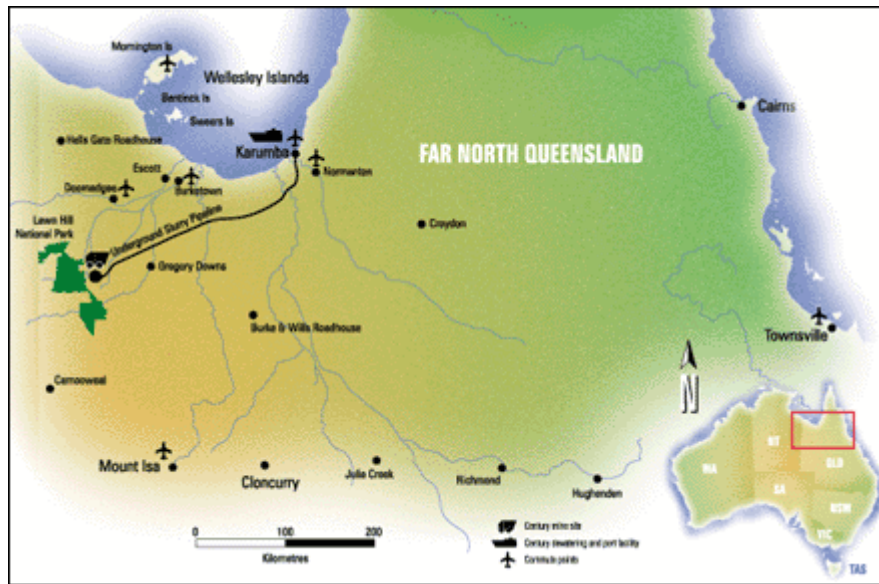
For the purpose of providing a context for the practices we discuss there will be an outline of the physical circumstances of the mine and its workers. As well as, a brief review of some background information, regarding the status of Australian managers and their training opportunities.

## **Background**

### *The Mine*

Century Mine is located at Lawn Hill, which is one of the most remote areas of Queensland, Australia, approximately 250 kilometres north north west of Mt Isa and within 150 km of the Gulf of Carpentaria. Mining zinc, lead and silver, Century is an open cut mine, one of the largest zinc mines in the world, producing 880,000 tonnes of zinc concentrate and 70,000 tonnes of lead concentrate per year.

This is a fly-in-fly out mining operation that operates twenty-four hours a day. Each worker, starts work between 5.30am and 6am, and finishes that shift, at 6pm. and works a roster of between 5 days straight to 21 days straight depending on their respective employer. The group that this paper concerns are those workers that have a 21day straight shift, which usually includes at least seven days night shift. This outline gives a view of the milieu of the mine.



Source: [www.pasminco.com.au](http://www.pasminco.com.au)

The cultural environment of the workers with whom this paper is concerned, is varied, with a large proportion of indigenous workers (approximately 25%), and a wide cross-section of people from many varied backgrounds, there are no clear statistics available on this matter however enrolment information would suggest this. As successful VET outcomes do improve the employment prospects of Indigenous students (Robinson and Hughes, 1999) this paper confirms this in the results section below. There are a variety of age groups participating from early 20's to late 50's, with a wide spectrum of educational backgrounds. For many workers who participated in the training, it was actually their first attempt at any training since leaving school, this had to therefore be a positive experience.

### *Australian Managers*

There is much evidence to support the facts that Australian workers are being placed under increasing pressure to increase productivity and efficiency. As well, since the early 1980's, Australian enterprises have become exposed to increasing levels of international and domestic competition, (Smith et al, 2002). As the pace of the modern workplace revs up, then people are moving through into positions of responsibility more quickly. As Cole (2001) states, organisations have a flatter structure, and therefore Frontline Managers often have more responsibilities.

Someone leaves his or her position, and then the next in line gets promoted. The 'next in line' have great operating and/or many years of technical experience, but often not any supervisory skills, such as leadership, communication, and negotiation skills.

Every year, about 30,000 people are appointed to their first management position, (Cole, 2001). *The Karpin Report* (1995) estimated that nearly half of Australia's first-line managers had no formal training for their role. While no doubt there has been some improvement in the training opportunities for our managers compared to other OECD countries since the *Karpin Report* (1995) has this training been effective and increased their interpersonal skills and equipped them for a more diverse workforce.

Further evidence suggests that in occupations with a higher level of cognitive skills (such as supervisor) around three in five stayed in their jobs because of accessing of post school education (Cully, 2003). In general, the trend is towards higher levels of skills in most occupations, but with a significantly increasing demand for the generic skills such as teamwork, communication and problem solving that enhance the adaptability of the workforce and increase its responsiveness to change (*Building skills for the Future*, NCVET, 2002)

This background highlights the absolute requirement that the pedagogy used in this setting for these people is fundamental to the success of these workers and their progression in their chosen workforce.

## **The Results**

The delivery of innovative pedagogy in the setting outlined above has many constraints and certainly cannot follow the 'norms' of vocational pedagogy. Dawe (2003) confirms from previous studies that there are significant 'drivers' that support training practices, these are workplace change, quality assurance and new technology. Kearns and Papadopoulos (2000), state that these influences (as they called them) build lifelong learning and building a learning culture. The pedagogy that is outlined here also supports these drivers, and outlines the process of achieving a learning culture and life long learning for these workers.

### *Briefing of management re commitment to outcomes.*

This is absolutely vital to the success of the program. It is essential to establish with management why the training will both address performance issues of their first line managers and can be directly linked to productivity. This commitment of management, may take some time, it is in itself an educative process, and must be treated as such.

The 'trick' is to continually link first line manager issues to the application of the training outcomes, these could be increased communication skills, greater ability to demonstrate leadership, understanding of the benefits of conflict resolution skills with a happier, more cohesive, and productive team of workers the result. A worker who has more self-esteem the trainers invite the management into the learning environment on several key days, to not only witness the learning, but to show real support to their workers.

### *Release of people from the work roster*

Remember we are in a remote location, on a 24-hour roster, people are not replaced when they come to training, and others just take up their work. So this is a huge commitment from management to the training. Once again we need to ensure management is supportive

Participants come to training for the same hours they would be at work, this is the arrangement from management so that they could have maximum exposure to the training without work disruption. It is extremely difficult for people in training to do

12 hours training, and then have to go back to the pit, to catch up after class. However, some do, rather than not attend the training at all.

It has in fact now created a learning culture within the workforce that has resulted in prospective participants, actually vying for entry into courses, keen to take the enormous plunge forward into learning even though they are fearful, this is an enormous step forward for these workers.

#### *Participant's preparation for the learning process.*

Preparation for the learning is essential to success. In this intensive learning environment, it has been successful to get past students to speak to current participants about what they can expect from the training from their own experiences. As we know fear is an inherent part of the adult learner, 'will I fail', 'will I be able to cope', 'am I going to make a fool of myself', 'I was no good at school' all are common fears of these miners. Many have not been to any form of training since school. We need to address this early in the learning process.

In the case of the indigenous learners, they may lack some LLN skills, so this 'past students experience' especially from other indigenous is so important for their comfort and confidence. Also the knowledge of the vocational teacher who works with this diverse range of indigenous learners (Balatti and Goldman, 2003) is also paramount.

Contact is also established with the new participants through the company bringing the trainer onto the site the day before the course commences, therefore allowing discussion with the people to commence training at the breaks in work the day before training commences.

Lastly on this point, all participant course material is accessible to any prospective participant through the HR supervisor for review before the course commences. This enables those who like to read and review material before commencement of the training the time to reflect on the content of the program, and perhaps discuss aspects with other previous participants.

#### *Facilitation expertise:*

Flexibility is absolutely one of the most important components of delivery in this setting. The ability of the training practitioner to be flexible with their delivery. It is paramount to keep the pace of the delivery aligned with the energy of the group and the content of the program.

Trust, is also so important. These participants are often absolutely terrified of attending training for the fear of failure. When they have a trainer who has been there for many years, dealt with their peers successfully in the past, they gain immediate confidence, hence the first barriers to training are overcome.

Interactivity, the training must be full interactive to keep the learning process stimulating, in these long hours of training, and to meet the learning needs of these very active learners. All training has to be very participative, this is done through

activities (see assessments), games for learning, chocolate 'bribery' gains instant results, and collaborative learning.

A measure of firmness, this is a tough environment 95% of students are male, who work in a tough environment, so a measure of firmness re progress and participation is essential. Enthusiasm for the learning tasks is a given, as these participants can sense insincerity very quickly, their world of work is hectic and they have a strong camaraderie for each other and include the training process in that structure.

Incredible patience, so many of them have such low self-confidence, and need this to be enhanced for the learning process to be effective. As well, many have low levels of Literacy and numeracy, so expertise in this area is a distinct advantage in delivery, ensuring that all participants' progress at a reasonable pace, mentoring is also a strategy used effectively in this situation as well.

A strong understanding of the participants work environment, and skills and knowledge required. Knowing when they normally have a break when their major meals are taken and so on, assists with the process of the learning. As it is a live-in village situation, there is nothing much that participants and trainers alike don't know about the local situation.

#### *Delivery strategies:*

Excellent delivery planning (delivery for 12 hours a day), this is the part that builds success for the overall program. The delivery strategy must incorporate all of the above strategies for achievement. Along with this planning, then there is the stamina required as a trainer to actually deliver training for 6 days at a time, and 12 hours per day, perhaps the subject of another paper.

Very interactive assessments, this is part of the delivery process. All assessments are of an interactive nature where participants produce assessment tasks individually or in a partner/group process formatively completed for the most part.

Continuous mixing of participants, so as to maximize their exposure to others in the group, ensure appropriate partnering for those with perhaps weaker LLN skills, and the continuous ability to gain exposure to other participants knowledge.

#### *Resources:*

Resources that is practical and simply designed. All materials have to be able to be to be practically related. Assessments are tailored to specific work examples, so that they are applicable to the work environment.

All course resources are fully explained to all participants up front clearly, and often again individually so as to be sure of full understanding.

#### *Mentoring:*

All participants are partnered, and encouraged to work together where possible, this offers them support. The HR manager mentors participants upon completion of the

training while they gather their workplace evidence for completion of the training. He is himself a workplace trainer.

A mentoring system is being developed for the whole workforce to further assist in the learning culture for this organization. As in other business, mentoring is increasingly important for confirmation of skills, especially with new workers who are indigenous.

#### *Assessment methods:*

As already stated very interactive assessments, this is part of the delivery process with a wide variety of different types of methods, and very practically orientated. Problem solving, case studies, role-plays and short answer activities are not only suitable, but also appropriate for the learning group.

Assessments are delivered with small chunks of learning, then assessment and so on, of course this breaks up the day, and adds to the interactive learning process.

#### *Monitoring and review:*

All resources must be monitored on an average of a four monthly cycle for currency with industry competencies, and suitability for the learning purpose. The view if something doesn't work then revise, and adjust for a more successful option.

Evaluation by the facilitator, participants and management is mandatory for success after delivery of each course. These evaluations are paramount to the success, and improvement of the pedagogic process in this situation.

### **Conclusion**

This development through action research of the pedagogy for these mine workers has evolved over these last six years into a successful methodology for delivery of vocational courses in this unique setting.

This innovative pedagogy, has significantly increased successful outcomes for this diverse group of vocational education participants, many of whom have been able to either apply for higher order positions or retain their supervisor roles as a result of successfully completing training as outlined.

Finally, the results of this effective pedagogy for the organization, have been able to satisfy important elements of the participant's organization, which have complimented the organizations business structure, and enabled it to respond to change within the business, and retain workers in positions of responsibility.

### **Acknowledgements**

The workers and staff of the mine are where the information to build this paper came from. Their constant positive efforts to achieve their learning, and build their careers in the mining industry have been an inspiration.

In addition, thanks go to the Management of the mine who have been supportive of this organizations training in this mine for the last 6 years, and their foresight in adopting this learning culture amongst their workers.

## References

Balatti, J., & Goldman, M., (2003). *Changing organisational practices to meet the needs of Indigenous students in mainstream VET*, Australian Vocational Education and Training Research Association Conference: 6th, Sydney, 2003

Cole, K. (2001). *Supervision the Theory and Practice of First Line Management*, Prentice Hall: Australia.

Cully, M. (2003). *Pathways to knowledge work*. National Centre for Vocational Education Research Ltd, Kensington Park, South Australia.

Dawe, S. (2003). *Determinants of successful training practices in large Australian firms*. National Centre for Vocational Education Research Ltd, Kensington Park, South Australia.

Kearns, P & Papadopoulos, G. (2000). *Building a learning and training culture: The experience of five OECD countries*, National Centre for Vocational Education Research Ltd, Kensington Park, South Australia.

National Centre for Vocational Education Research, (2002). *Building skills for the Future*. National Centre for Vocational Education Research Ltd, Kensington Park, South Australia.

*Report of the Industry Task Force on Leadership and Management Skills: Enterprising Nation – Renewing Australia’s Managers to Meet the Challenges of the Asia Pacific Century (known as the Karpin Report)*, Commonwealth of Australia, April 1995.

Robinson, C & Hughes, P. (1999). *Creating a sense of place: Indigenous peoples in vocational education and training*, National Centre for Vocational Education Research Ltd, Kensington Park, South Australia.

Smith, A., Oczkowski, E., Noble, C., & Macklin, R. (2002). *New management practices and enterprise training*, National Centre for Vocational Education Research Ltd, Kensington Park, South Australia.