Pedagogy matters: a research-based dilemma for Australian vocational education policy

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Introduction
This paper draws on new research into ‘transformative learning’ in the context of vocational education, and spells out some implications for pedagogical practice and policy in the vocational field. Transformative learning refers to deep changes in the way adults see themselves and their world, and is more often found in discussions of adult and community education than in vocational education. The fact that in this kind of learning the process and experience is primary suggests that it would have little relevance to vocational education in Australia, where outcomes are primary and the process of learning itself receives scant attention in policy discourse. What this research reveals is that learning in some vocational programs may be intrinsically transformative.

A significant implication of this research is for the area of pedagogy. The transformative learning research literature is replete with demonstrations of the important role of pedagogy in this kind of learning. It stands to reason that guiding and supporting an adult through a deep change in how they see the world and themselves would call for a highly-skilled practice. However, in the context of Australian vocational education, the preparation of educators does not appear to be conducive to the development of the practice necessary to assist adults through the process of transformative learning. The paper reflects on the shortcomings of the preparation of vocational education teachers in Australia in relation to transformative learning, and puts the case for a shift in policy to ensure that practitioners in at least some vocational education fields receive the training necessary to understand and support transformative learning.

Transformative learning
Transformative learning, as the term is used in this paper, refers to the concept researched and developed by Mezirow (1978, 1991). The adult education literature (e.g. Merriam and Caffarella, 1999) tends to use the term transformative learning to cover the theories of a number of thinkers, in particular the contributions of Freire and Mezirow. With Mezirow’s conception in mind, Taylor (2008, p. 12) observes that,
Transformative learning theory continues to be a growing area of study of adult learning and has significant implications for the practice of teaching adults. The growth is so significant that it seems to have replaced andragogy as the dominant educational philosophy of adult education, offering teaching practices grounded in empirical research and supported by sound theoretical assumptions.

Transformative learning theory seeks to describe and understand life-changing experiences of adults as a form of learning. Mezirow (1978) argued that transformative learning is an essentially adult learning experience in contrast to the ‘formative’ process that is taken to characterise the learning of young people. Mezirow believed that where experience (which can include formal learning experience) conflicts with an adult’s existing beliefs, assumptions, values, expectations, etc., they can experience a ‘disorienting dilemma’. If this dilemma occasions enough critical self-reflection, then the existing ensemble of beliefs, assumptions, values and expectations which are challenged by the new meanings may undergo change. Mezirow termed the complex of interrelated beliefs, assumptions, values, expectations that are challenged a ‘meaning perspective’, and the process through which this complex is changed, ‘perspective transformation’.

Mezirow (1991, pp. 168-9) proposed that the process of perspective transformation generally involves the following stages:

1. A disorienting dilemma;
2. ‘Self examination with feelings of guilt or shame;
3. A critical assessment of epistemic, sociocultural, or psychic assumptions;
4. Recognition that one’s discontent and the process of transformation are shared and that others have negotiated a similar change;
5. Exploration of options for new roles, relationships, and actions;
6. Planning a course of action;
7. Acquisition of knowledge and skills for implementing one’s plans;
8. Provisional trying of new roles;
9. Building of competence and self confidence in new roles and relationships; and
10. A reintegration into one’s life on the basis of conditions dictated by one’s new perspective.

We are told that not all learners undergoing meaning perspective transformation need to go through every one of these stages, nor in the order presented. However, two stages of the process seem to be close to necessary in Mezirow’s discussions: the ‘disorienting dilemma’ and critical reflection on assumptions. The nature of the former has been noted above, and will be explored further in the discussion of pedagogy below. But a disorienting dilemma needs to be coupled with deep questioning by the learner of the assumptions that have been highlighted by the disorienting experience if the dilemma is to give way to learning.
Critical assessment or reflection, for Mezirow (1991), is the mechanism by which meaning perspectives are transformed. He differentiates between reflection upon facts (‘content reflection’), reflection upon how things turn out as they do (‘process reflection’), and reflection upon why things turn out as they do (‘premise reflection’). While Mezirow believes content and process reflection are more-or-less common parts of everyday life, premise reflection is seen less frequently, and often needs to be provoked by challenges that the other kinds of reflection cannot resolve. It is premise reflection, then, which is triggered by disorienting dilemmas leading to reflection upon beliefs, assumptions, values and expectations that underpins perspective transformation.

Transformative learning involves complex relations between learning situations and the world and self of the learner, and can also lead to significant disturbance in learners. Because meaning perspectives are central to adult identity, their challenge and transformation is obviously an experience fraught with personal significance. According to Mezirow (1991, p. 168) ‘These challenges are painful; they often call into question deeply held personal values and threaten our very sense of self.’ Brookfield (2000, p. 146) names this kind of experience as the ‘dark side’ of learning, while Scott (1997) goes so far as to connect transformative learning to the notion of the ‘grieving soul’. Given the complexity of transformative learning, and the depth of the impact it can have in the lives of adults, the importance of the role of the adult educator in transformative learning has been emphasised (e.g. Mezirow, 1991, Taylor 2008). In the transformative learning literature considerable attention has been given to the learning activities that promote transformative learning and the skills required by the educator to promote and support transformative learning (e.g. Cranton, 2006).

**Researching transformative learning in vocational education**

The research project upon which this paper is based set out to explore transformative learning in vocational education and training (VET) programs. It initially involved identifying three VET courses to form a multiple-case study. To select the cases, a paper-based questionnaire was administered to ten groups of learners from seven program areas: Youth Work (two groups), Management, Training and Assessment (two groups), and apprentices learning Panel Beating (two groups), Marine Machinery, Outdoor Machinery and Motorcycle Maintenance. The questionnaire was based on one originally used by King (1997) to research transformative learning in higher education. It posed a number of questions designed to gauge the degree to which respondents underwent ‘disorienting dilemmas’ and other stages of perspective transformation as described by Mezirow (1991), and also whether learners engaged in critical reflection on their own assumptions, beliefs, values and expectations. All learners surveyed were in the final days of their programs, a stipulation that maximised the opportunity for learners to reflect on the influence of the program as a whole on their personal lives and learning. The survey results were used to select three learner groups, two indicating high levels of possible transformative learning, and
one group indicating lower levels. In the former category were a Youth Work and a Management group, while a Motorcycle Maintenance group represented the lower survey scores. Including cases of both high and low indications was used as a strategy to help clarify the function of transformative learning in the broader field of vocational education.

Collecting data for the case studies initially involved approaching specialists in the occupations related to the case programs with a view to identifying possible meaning perspective dimensions of the work role. These participants were accordingly asked whether there was a ‘mindset, outlook or perspective’ that competent workers in the occupation held in common, whether there were shared values and beliefs, and how important these mindsets, values and beliefs were in their occupational specialty. The rationale for this part of the research was that if there are vocationally-oriented meaning perspectives, it would be useful to know whether any perspective transformations experienced by learners in the case groups were related to any meaning perspectives specific to the field, or whether the learning possessed a more personal significance.

What the specialists said in all three fields was that there is a mindset and values that are shared by competent workers in their respective fields, and that this complex is an important aspect of competent work in them. In Youth Work, meaning perspective aspects of the occupation included assumptions about the causes of client behaviour (that parents, guardians and society rather than ‘genetics’ produced client behaviour) and values with respect to clients (that all people, including clients, are intrinsically good and redeemable). In Management, meaning perspective aspects included the belief that organisational objectives are best achieved through eliciting and coordinating the specific strengths of individuals. In Motorcycle Maintenance, perfectionism and tenacity in the face of mechanical problems were among the meaning perspective aspects of competent work.

The second stage of the case studies involved interviews with learners, both those whose questionnaire results indicated perspective transformation and those with low or no indications. It was reasoned that interviewing the latter category of learner would help to throw light on the role of possible vocational meaning perspectives, since it would be possible that a learner could commence VET with occupationally appropriate meaning perspectives already established, and hence not benefit in a vocationally meaningful way from perspective transformation. Learners were asked several open-ended questions to gather information about their perception and experience of change during the program, about the level of discomfort produced by any changes, about events (both curricular and extra-curricular) that may have contributed to change, about social support for the learning process and how any changes may relate to working in their new fields.
Interviews with learners generally confirmed the survey results, i.e. that transformative learning was experienced by up to half of the learners in the Youth Work group, about one-third in the Management group, while none of the learners in the Motorcycle Maintenance apprentice group appeared to have this sort of experience. Furthermore, in the Youth Work and Management groups, about half of the perspective transformation that took place was oriented toward the meaning perspectives of the occupation with which the training was concerned, and about half was of more personal significance. For example, some learners in the Youth Work program were seriously challenged by revelations about the causes of client behaviour, while others applied curriculum content to unresolved issues in their private lives, triggering perspective transformations in the process.

However, the participants from the Motorcycle Maintenance group exhibited no perspective transformations, but rather tensions and changes at the level of what Mezirow called meaning schemes, which are individual beliefs, assumptions, skills, etc. that make up a meaning perspective. A question that springs up here is if there is a meaning perspective aspect of the occupation of Motorcycle Mechanic, and if this aspect is important to competent work in the field, why was there no perspective transformation obvious in the group? According to the industry specialists, the meaning perspective specific to the Motorcycle Mechanics' occupation is something that begins its emergence when the learner is very young, and is almost universally fixed by the time the learner enters the apprenticeship. This suggests that an apprenticeship itself is essentially a process of quantitatively extending the prior perspective.

The third stage involved interviewing trainers to find out whether they could recognise the phenomena associated with transformative learning, and whether they already had strategies for suppressing, promoting or supporting the process. If trainers felt that the case programs led to significant changes in learners, they were presented with a ‘de-jargonised’ list of statements representing Mezirow’s ten stages of perspective transformation, and asked to comment on the extent to which the descriptions resembled actual learner experiences they witnessed during the program.

Data from these interviews indicated that trainers in both the Youth Work and Management fields recognised the features of transformative learning as described by Mezirow (1991), and had developed various strategies for supporting perspective transformation, and in many cases actively promoted the process. None of the trainers suppressed this kind of learning, although some were apprehensive about whether other staff connected with the training, especially managers with commercial and compliance responsibilities, would understand and support the process of perspective transformation if they became aware of it. On the other hand, trainers of apprentice Motorcycle Mechanics did not generally recognise or promote perspective transformation. This latter finding ties in with the suggestion by industry specialists that occupational meaning
perspectives for motorcycle mechanics were generally established prior to program participation, with the consequence that VET practitioners in this field should not be confronted regularly with this kind of learning.

The research presented here demonstrates that transformative learning, in Mezirow’s (1991) sense, is part of the learning experience of some participants in vocational education in Australia. The case study data, collected from a range of sources, provides a triangulated foundation for this claim. The research also suggests that transformative learning is more concentrated in some occupational areas than others. From the very limited case study results, it may be postulated that although Mezirow’s meaning perspectives play some general role in occupations covered by the National Training Framework, it is only in some curriculum fields that meaning perspective transformation would emerge in a systematic way during formal learning. The research indicates that it is in programs oriented to occupations in human services areas that transformative learning is most likely to arise.

**Vocational education and pedagogy**
Vocational education in Australia has passed through an era of wide-ranging reform that has seen the introduction of many changes, among the most profound being the mandating of competency-based training (CBT) as the basis of the VET system. The rise of CBT has major implications for pedagogy. As Smith and Keating (2003, p. 126) explain,

CBT is always concerned with what the student or worker-in-training will be able to do at the end of the training. There is not so much concern with what the inputs are or how the student has got there. So long as the learner achieves the listed competencies, it does not matter who taught him or her, how or when the training takes place, what resources are used or of what the content material of the curriculum consists.

This emphasis on outcomes and disdain for ‘inputs’ – pedagogy and curriculum – is reflected in policy regarding the preparation of teachers of vocational education. The National Training Framework decrees that all teachers involved in the ‘delivery’ of accredited training must hold the ‘Certificate IV in Training and Assessment’ (or, at the time of writing, the immediate predecessor of this qualification, the ‘Certificate IV in Assessment and Workplace Training’). This qualification includes strands in teaching, assessment, the VET system and the design of learning, spread across 14 individual Units of Competence.

There are two shortcomings with this qualification seen in terms of the research reported in this paper. The first concerns the curriculum of the Certificate IV in Training and Assessment. An analysis of the content of the Training and Assessment Training Package (Commonwealth of Australia, 2004) reveals that learning theories are listed 11 times, but that ‘constructivism’ (the broad theoretical category to which transformative learning theory belongs) is only
included in these lists four times, while behaviourism features in all of the lists. However, although ‘constructivism’ may be mentioned within the Units of Competence, in practice the Training and Assessment curriculum is dominated by the theory of behaviourism (Darwin, 2007).

The dominance of behaviourism within the Certificate IV in Training and Assessment curriculum is as much a structural effect as it is a curriculum decision. The way occupational knowledge is codified in Competency Standards is strongly influenced by the theory of behavioural objectives. For example, in Mager’s (1962/1990) canonical text on behavioural objectives, a useful objective is described as one that ‘conveys to others a picture of what a successful learner will be able to do that is identical to the picture the objective writer has in mind.’ (1990, p. 19; italics in original) He goes on to distinguish three characteristics of such useful objectives: they state the performance expected of the successful learner, relevant conditions under which the performance is to occur, and criteria of successful performance. Mager’s scaffolding is reflected in the format of Australian Units of Competence, which all break down of the job role or task addressed by the unit into ‘Elements’ which serve as unit objectives, and ‘Performance Criteria’ which specify the level of performance required to demonstrate achievement of the element. Other parts of the Competency documents specify conditions and define significant terms used in the formulation of the Elements and Performance Criteria. Due to the embeddedness of behavioural principles and a transmission image of learning in the VET system, it would be difficult to seriously challenge the status of behavioural learning theory in the qualification that in a sense is an initiation into the Australian version of CBT.

Compounding these curriculum-based issues is a second shortcoming. Depending on the training organisation, an aspiring VET teacher may complete the formal program in just a few days. For example, one highly respected provider in South Australia offers the formal program in seven days. Completion of assessment requirements will add significantly to this time commitment, but the brevity of the program remains striking. Yet this approach to training is very much in the spirit of Australian training reform, and considering the reasoning offered by Smith and Keating (2003) above, is unlikely to raise any official eyebrows. The difficulty here lies in the fact that even if Units of Competency list non-behavioural learning theories as possible subjects for aspiring educators to study, it is very unlikely that there would be enough time in the formal program for sufficient treatment of the theories. Even in publicly funded institutions that traditionally dedicate more time to formal programs such as the training and assessment qualification, the subject of learning theories may only be allocated one day or one evening, which is surely not enough time to gloss a single theory of learning, let alone a variety of them.
Conclusion

Meaning perspective transformation is a uniquely adult form learning that can involve complicated relationships between curriculum and the personal life of learners, and disturbance in learners. As such, transformative learning has significant implications for pedagogy. The complexity and distress that may be caused by the process of perspective transformation places great demands on the adult educator’s skills.

This paper has described research which indicates that transformative learning takes place in vocational education in Australia, and that certain curriculum areas within vocational education – those concerned with human services-oriented occupations – may even systematically elicit this kind of learning. If there are transformative curricula within Australian vocational education, then the question arises of the practice of pedagogy in these areas and the nature of the preparation of educators. The research provides evidence that trainers working within such curriculum areas are aware of the general features of transformative learning, and that they develop their own practices to support and sometimes to promote this kind of learning.

However, the preparation of trainers in Australian VET is not likely to equip new practitioners for the roles of promoting and supporting transformative learning. It was argued that the curriculum of the base qualification for VET practitioners in Australia places little emphasis on constructivist theories of learning and overtly or covertly promotes behavioural learning theory. This pervasive curriculum emphasis on behaviourism is reinforced by the fact that behaviourist principles are embedded in the VET system as an institution through CBT. It was further suggested that the potentially small amounts of time allocated to learning theory in formal programs offering the VET teaching qualification would compound the neglect of non-behaviourist theories of learning.

The Australian VET research community has long voiced its concern about the place of pedagogy in official VET policy (Smith and Keating, 2003). The research presented in this paper lends weight to the broad case for reviewing Australian VET policy as it relates to pedagogical practice. More particularly, it shows us that research utilising Mezirow’s transformative learning theory can help to specify policy shortcomings that have clear consequences for learners and their learning, and underline the need to ensure that educators are adequately prepared to support transformative learning.

References


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