

# **THE GLUE OF THE COMPETENCIES? RESEARCHING THE ROLE OF ‘VOCATIONAL MEANING PERSPECTIVES’ IN VET**

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## **Abstract**

Competency-based training has been criticised for entailing a fragmented curriculum. In the light of this criticism a good question is how these fragments cohere into a basis for competent work practice. This question is explored in this paper, which draws on recent research into transformative learning in the context of vocational education and training (VET). Mezirow’s (1991) concept of ‘meaning perspectives’ – broad psychological structures that undergo change in transformative learning – is used to interpret experiences reported by learners in case studies of learning in VET programs. Participants in this research were found to possess or develop meaning perspectives on work roles which influenced the way curriculum was received. These perspectives appear to bind personal elements of identity, values and motivation with the diverse content of formal learning programs and work experience. This paper considers the proposition that vocational meaning perspectives come into play in VET learning and function like a unifying ‘glue’ that may counteract any fragmenting effects of a competency-based curriculum.

## **Introduction**

The complaint that competency-based approaches to education entail a fragmented curriculum goes back at least to Broudy’s (1972) criticism of ‘Performance-Based Teacher Education’ – the forerunner of competency-based training (CBT) – for neglecting the development of the knowledge upon which a teacher bases their performance. A steady stream of criticism has followed CBT wherever and whenever it has emerged, and its introduction as part of the national training reform agenda in Australia was no exception. From Collins (1993) and Blunden (1997) through to Darwin (2007) and Buchanan, Yu, Marginson and Wheelahan (2009), the adoption of CBT as the official curriculum model for the national vocational education and training (VET) system has been criticised for undermining the unity of workplace knowledge. In this paper some research is presented that may contribute to our understanding of issues of unity and fragmentation in competency-based VET learning. Mezirow’s (1978, 1991) concept of ‘meaning perspective’ emerged in this research as not only a structure to comprehend the nature of significant adult learning, but a way to conceive the unity of vocational knowledge and also account for the integration of potentially disparate curriculum in the experience of VET learners.

## **The ‘Fragmentation Thesis’**

The thesis that curriculum based on the analysis of work roles in terms of discrete units impairs learners’ ability to form a unified understanding of work roles has been articulated in various ways, often in the context of debates sparked by the introduction of reform policies by governments intent on holding education and training systems to account for perceived failures to contribute to the national good. Thus in the American context, Broudy (1972, p. 2) examined the reformers’ belief that a gap between theory and practice explained the failure of teacher education in that country, and the notion that the gap could be eliminated ‘(a) by getting rid of theory altogether or (b) by reducing it to only what was needed to perfect practice. To accomplish these reforms,’ he added, ‘the PBTE proposes to analyze teaching

into a set of operations or tasks.’ Broudy (1972) asserted that the PBTE approach is based on the following assumptions:

1. The teaching act is the sum of performances into which it is analysed.
2. The performance unit is a matter of indifference, i.e., the number and character of the performance units can vary from one program to another.
3. The criterion for the “product” is demonstrated competence in the selected set of training performances. (p. 3)

But for Broudy (1972), the assumption that in teaching the whole is the sum of the parts,

...is a notoriously inadequate description of any human action, let alone one so complex as teaching. Teaching can, of course, be *thought of* as broken down into parts, but as a concrete action it is guided at every moment by a sense of its total pattern. This pattern – in swimming, reading, classifying, judging – integrates the analyzed constituents into a meaningful functional sequence, not merely an additive one. We are told, at least by some psychologists, that *after* the pattern has been sensed or felt or understood, the details can be perfected separately, but until the pattern has been discerned, drilling on the separate parts yields disappointing results.

Notwithstanding Broudy’s (1972) criticism, the PBTE (which was later called ‘Competency-Based Teacher Education’) movement pushed on with its agenda through the 1970s. Later on, the idea of competency-based education was picked up by British policy makers and industry leaders in the 1980s, where it became the cornerstone of national vocational education reform. The British context shared a number of characteristics with the American one that gave birth to PBTE. In Britain the argument circulated that the failure of education and training systems contributed to a social malaise (a faltering economy) and that reform was therefore necessary. In this new setting the principles of competency-based education were applied to the vocational education and training (VET) sector, prompting anew the debate about the benefits of the competency approach and the deployment of the fragmentation thesis. For example, Ashworth and Saxton (1990, p. 12) explained that,

...the competence approach gets applied in a given occupational area by the generation of a long list of competence statements which are intended to cover all the skills, pieces of information, and performances necessary to carry out the required tasks. Thus, it is assumed in practice that individual elements of competence add together to produce global competence.

They went on to conclude,

A complex skill entails elements none of which can even be defined independently of the rest. Any behaviour is a ‘meaningful Gestalt’; a whole in which the individual elements affect each other in a manner that changes their nature. The elements of skill are not recognisable or separable from the complex whole (Ashworth & Saxton 1990, p. 12)

In the British context, the fragmentation thesis was elaborated by a number of critics, with Hyland (1993, 1997) prominent among them.

It may be argued that the adoption of CBT in Australia – again in an environment of political discontent with public education and training systems – was marked by a more nuanced application of the principles, a trend influenced by the positions of Hager (1995), who argued the need to embrace a ‘broad’ as opposed to a narrow conception of competency and Harris, Guthrie, Hobart and Lundberg (1995), who endowed CBT with humanist credentials by stressing the potential for CBT to underpin student-centred learning. However, such efforts did not stop both the generation of ‘narrow’ competency statements, especially in the early days of training reform, nor the emergence of anti-CBT voices and an Australian phase of the fragmentation thesis. Instances of criticism (including constructive criticism) that mobilise the fragmentation thesis in some way include Collins (1993), Brown (1994), Blunden (1997), Cornford (1997), Chappell, Gonczi and Hager (2000), Wheelahan (2004) and Darwin (2007). Buchanan et al (2009, p. 20) recently put the matter this way:

The assumptions underpinning [the Australian CBT] system about the nature of work are limited. At best they provide an incomplete basis for engaging with the changing nature of work. At worst they inhibit our understanding how work is evolving. Few, if any people, today want to define jobs in narrow, occupational terms. But dismembering work into thousands of units of competence misses the point. Instead, it is the cluster or ensembles of capability that give people the capacity to do things – not an aggregation of discrete skills. When it comes to being competent the whole is definitely more than the sum of the parts – or in particular, units of competence.

### **The concept of ‘vocational meaning perspectives’**

The significance of my research for the fragmentation thesis is not immediately obvious. After all, transformative learning is an adult learning theory steeped in the individualist and humanist traditions of American adult education. Mezirow’s (1991) theory of transformative learning shares fundamental assumptions with the theories of Lindeman (1926) and Knowles (1962) regarding the primacy of the individual’s needs for self-development in the development of curriculum. It is difficult to imagine a stronger contrast than the one between this philosophy and the philosophy implicit in contemporary Australian VET which accords primacy to the needs of industry and the economy generally in determining curriculum, and places very little weight on the meaning of it all for the individual. Yet there is one level on which Mezirow’s (1991) ideas have clear implications for CBT and Australian VET more broadly. Specifically, Mezirow (1991) makes a distinction between meaning structures in learning that maps to the division between wholes and parts that is fundamental to the fragmentation thesis.

Mezirow’s (1978) research, which marks the beginning of transformative learning theory, focussed on the experiences of women returning to education where they were exposed to feminism and techniques such as those used in ‘consciousness-raising’ groups. For many of these women, after years occupying traditional female roles, their new experiences were exhilarating, disruptive and liberating. Many experienced deep changes in their outlook. Mezirow (1978) theorised these changes as transformations of ‘meaning perspectives’ or the ‘the structure of psychocultural assumptions within which new experience is assimilated to past experience’ (1978, p. 11). The negation of assumptions and the perspective transformation that can follow was posited by Mezirow (1978) as the central dynamic of adult learning. Later, Mezirow (1991) distinguished between meaning schemes and meaning perspectives. Schemes are the specific types of thought, action, and affection that make sense in terms of overarching perspectives. We can learn at the level of meaning schemes –

Mezirow (1991) illustrates this kind of learning with the example of practicing golfing skills – without triggering transformative learning. However, an accumulation of scheme negations, or a direct challenge to a meaning perspective, does have the potential to bring about the transformation of the relevant meaning perspective. Once a perspective is transformed, it would appear that the meaning of constituent schemes is revised. Things are seen in a new light; skills, knowledge, attitudes take on a different significance.

Many adult educators drawn to Mezirow's (1978, 1991) ideas are stirred by the prospect of close examination of the *process* of perspective transformation. King (1998, *preface*) captures the essence of this attraction: 'One of the most thrilling experiences for me as an adult educator is to see adults awaken to new understandings about their world and themselves.' My research broadly followed the orientation to transformative processes, seeking to find and understand significant personal change in VET. I selected three groups of learners undertaking different VET programs to build case studies of transformative learning in VET. While my research focussed on the nature of transformative experience in these cases, I also posed the question of the relation of perspective transformation to VET curriculum, and it is this line of investigation that moved the focus away from the process of perspective transformation in individuals and on to the relationship between meaning structures, VET curriculum and job roles and ultimately to the idea of vocational meaning perspectives.

A secondary part of my research involved interviewing industry specialists whose expertise was in the curriculum content of the learning group cases. I asked these informants (N = 11) a series of questions about mindsets, worldviews, outlooks, assumptions, beliefs and so on, that might be common to effective practitioners in their specialist vocational areas. I was asking them, in effect, to tell me whether competent workers in a given occupation possessed a vocationally specific meaning perspective. To my surprise, for each of the specialist areas (youth work, frontline management and motorcycle maintenance) the answer was 'yes': there are such structures that characterise effective practitioners in each area. The interviews then moved on to the description of these perspectives. The perspective of each vocation was highly specific. The descriptions did not reveal more-or-less generic 'key competency'/'employability skill'-type features (which is what I anticipated), but a system of assumptions that encompassed elements of personal interest and motivation, professional stance, and the nature of the environment and its objects and actors in which the practitioner worked. For instance, the youth work vocational perspective included such assumptions as:

- Young people are interesting
- Young people are innately good
- Poor environments lead to problematic behaviour in young people
- Youth work clients need good adult role models
- Youth workers have to reflect on their own behaviour with clients

Expressed in this way, these statements are unremarkable. However, to hold these as assumptions in all their ramifications, to act in terms of them and to perceive the world in their light calls for much more than intellectual assent. The experiences of a few of the learners in the youth work course suggest that for some people, approaching a work role that embraces these assumptions can create upheaval and bring about the learning experience Mezirow (1991) called 'transformative'. I will briefly discuss the experiences of three learners I interviewed which illustrate this process.

Two of these learners were mothers in their 40s with teenage and older children. They did not have a clear sense of what youth work involved coming into the course, but did assume that the attitude of the caring parent and the behaviour management skills they developed in the parenting context would equip them to be effective youth workers. However, as the youth work course progressed, these learners entered a phase of what Mezirow (1991) called a 'disorienting dilemma', i.e. a confusing, even painful, period during which a person feels deeply challenged by new learning. One of the learners spoke of becoming 'depressed', while the other responded this way when I asked about how much anxiety the course caused:

A lot. I guess I was taken completely out of my comfort zone, both in my beliefs or my - it's really hard to explain. There was quite a lot of discomfort in terms of where I thought I was at, and where I needed to be. There was quite a lot of discomfort there. I was just completely taken out of my comfort zone. All of a sudden learning about a community issue. I find it hard to explain. I was just really uncomfortable throughout the course, it wasn't the course, it probably wasn't even my ability to learn, but the information was challenging or made me quite uncomfortable.

In these interviews I asked the learners in detail about what it was that produced the discomfort. For both learners, two themes recurred: first, that parents often create environments that induce client behaviour and second, that the number of youth work clients in programs and in various form of treatment was much higher than they assumed:

I was just learning that these kids aren't learning any good, they're not around good people. Foster carers are minimal these days, so the environments that these kids are growing up in, they're learning nothing, they're not learning goodness. You can't expect a kid to know it if they've never learnt it. That's what I'm learning. And society will be in accordance with that, and continue to be. That's what freaks me out the most. There's no light.

I knew there were problems [but] I didn't realise the lack of structure, or lack of organisation for dealing with these kids. I knew kids were taken out of homes and stuff like that, but I didn't realise then what happens to them. Not to the extent that it's happening.

These two learners brought assumptions about parenting, the system and society to the course that were directly challenged by the curriculum. At the time I spoke to these learners, which was several weeks after course completion, they were both youth workers. They were still sorting their views out about youth work, but their outlooks now encompassed an assumption – poor environments lead to problematic behaviour in young people – that not only did not seem to be part of their initial set of assumptions, but conflicted with those assumptions.

Another learner I interviewed whose assumptions were challenged came into the course with rigid views about the causes of youth work client behaviour. For this learner, individuals freely chose their own behaviour and deserved to be dealt with harshly:

I was always fairly moral, fairly strict-moral sort of person, and so for me even when I was a kid, if someone does something to someone else, it would be straight, "That's wrong", condemn them for it.

The basis for this kind of thinking underwent significant change during the course. This learner explained that

...for me perhaps what changed more than anything, as I mentioned, I would always determine it pretty cynically, really, 'right' and 'wrong', and I don't really care what your situation is. I was probably a bit insensitive in my own mind. I don't care, I don't really care if you've been hit by your dad, it's no excuse for doing this. And I guess where my change occurred was that I actually went back and said there is a reason for it. I [had] said there's no reason for that, you can't do that. You hurt somebody, I don't give a damn what's happened to you, you can't do that. And what I actually did was went back and said, yes, there is a reason for it. And so I think the biggest thing for me was, the change was going back and understanding why things have happened. So it was that definite change.

His revised outlook is expressed in this statement about being a youth worker:

You couldn't say we expect less bad behaviour or I expect more bad behaviour. It's simply a matter of what their situation is. You can only expect so much from them. If I run into a child who's been sexually abused by their father for the last ten years, I can't possibly expect that child to be well-adjusted. If they are, that would be quite extraordinary. But you cannot sit there and say, 'Well, I expect you to behave this way because you are this age.' Let's say it's a 16-year-old; they've been abused by their father for ten years. Now if that 16-year-old has gone off and abused someone else or hurt them or done something else, I can't reasonably expect they can't do that. That doesn't justify it, but I cannot sit there and say, 'Well I cannot absolutely in any way understand why you have done that.' So you have an understanding of what they've done, and perhaps why it's happened. [It] doesn't say it's good, and obviously we want to change it, but at the same time you can look at it from their point of view.

This learner brought assumptions about the causes of youth work client behaviour to the course that were challenged, and went on to develop a mindset that included two assumptions – poor environments lead to problematic behaviour in young people and young people are innately good – which conflicted with the original assumptions.

In contrast with the experiences of these learners was the learning reported by an interviewee who had extensive exposure to the realities of youth work a few years before starting the course. He had entered the juvenile justice system at a young age, but was helped to disengage from that environment before his punishments were escalated to custodial sentences. When I asked him about whether he was confronted by anything he learned in the course, he replied

No, I didn't find anything confronting.

*Any of the stuff about the situations of young people, did you find any of that stuff confronting?*

Not really no. I have sort of grown up with a lot of young people who have had a lot of backgrounds with that kind of stuff.

We discussed his experience with youth work realities. He explained he was

Just naughty when I was younger as well, just getting into trouble. I went to court a few times and a lot of my friends as well. I have got friends who are still doing bad stuff and still classed as a youth as well.

*So the things that you heard about the clients, that didn't surprise you?*

No, there was still some stuff though. I heard a story about an 11 year old girl knocking on doors, prostituting and stuff. There was stuff like that but I know it is out there so it doesn't shock me.

*When you went to the cells, that didn't disturb you much?*

I have actually been in them before myself, so I already knew that place.

*You mentioned some of the older mothers before [the interviewees discussed above] - were they shocked?*

When they saw the cells, yeah. I thought it was quite cosy, it had lots of posters and a TV in there. I thought it was actually not too bad.

I questioned him about his stance on the youth work assumptions listed earlier, and he wholly subscribed to each of them. Although this learner experienced some difficulty with learning as such during the course, none of his assumptions which pertained to the youth work role were challenged.

### **Vocational meaning perspectives and CBT**

Because the focus of my research was on the process of transformative learning in individuals, my methodology did not include provision for systematic exploration of the relationship between learner perspectives and the individual competencies around which their learning was structured. However, I did spontaneously extend the discussions to the topic of particular course content and assumptions relating to youth work. Two interesting points emerge from these parts of the interviews. First, learners in the youth work course who either entered the program with a set of assumptions that matched those of the youth work perspective or whose assumptions were transformed in line with the work perspective tended to interpret the course content in terms of the set of assumptions. For example, one of the learners whose assumptions changed pointed to the impact of statistical data presented in relation to the unit of competency 'CHCCS402A Respond holistically to client issues':

I'm just trying to think back to the first couple of weeks...Yes, we'd talk about information from the course notes. They were going through statistics – that was what freaked me out. A lot of statistics. Over the last 20 years on the number of kids removed from parents. It's increasing rapidly.

Other learners demonstrated that information about legislation, policy, specific service provision and cultural awareness was assimilated in terms of assumptions. The second observation is that the learners whose assumptions were challenged seemed to have difficulty integrating the course content from the early part of the program. Their experience contrasts with that of the learners entering the course with youth work oriented assumptions. These

learners appeared to relate the details of the coursework to their assumptions immediately. I wonder whether the initial assumptions of the learners who experienced transformative learning, insofar as their assumptions did not yet reflect those of the youth work perspective, impaired the integration of specific information. An additional or alternative reason may be that a phase of 'disorienting dilemma' would interfere with the discernment of wholes regardless of how fragmented or integrated the representation of an occupation in curriculum. What the evidence from the interviews with the youth work learners suggests is that their learning can be comprehended at both the level of meaning perspectives – systems of assumptions – and meaning schemes – specific information, procedures, responsibilities, etc. For the first two learners discussed above, their experience in the course involved learning as meaning perspective transformation and learning as meaning scheme acquisition. The third learner did not experience learning as meaning perspective transformation but did learn at the level of meaning schemes. For example, he said that what did confront him was 'a story about an 11 year old girl knocking on doors, prostituting and stuff. There was stuff like that but I know it is out there so it doesn't shock me.' What was confronting to him added to his stock of ideas of what could be encountered in the world of youth work but it confirmed rather than challenged his existing perspective.

As a whole, this extended case study of a youth work learner group, involving interviews with industry specialists and learners, indicates that the concept of meaning perspectives may be relevant to VET learning. Discussions with industry specialists points to the possibility of vocationally-specific meaning perspectives identifiable as systems of assumptions which are shared by competent workers within occupations. Discussions with learners preparing for these occupations indicate that vocationally-specific meaning perspectives may already be in play in VET programs. Some learners entering the program come with perspectives that resemble the vocational perspective and whose learning consists in the reinforcement and extension of the perspective. Other learners experience perspective transformation that leads to the assumption of the vocational perspective and whose learning henceforth serves to strengthen the new perspective.

## **Conclusion**

The fragmentation thesis posits wholes that are sundered through the application of competency-based approaches to curriculum. These wholes refer to an existential unity embodied in work roles as they are undertaken by concrete individuals. For Broudy (1972) and Ashworth and Saxton (1990), the whole is conceptualised as a pattern or gestalt, while in Buchanan et al's (2009) assessment, the whole comprises a 'cluster or ensemble of capabilities'. In each of these accounts, the translation of these wholes into competencies fragments the whole so that the resulting curriculum obstructs rather than facilitates the learner's apprehension of patterns or ensembles. The research discussed in this paper introduces another conceptualisation of vocational wholes, in this case borrowing the idea of meaning perspectives from Mezirow (1978, 1991). Meaning perspectives are structures that confer meaning upon particular beliefs, actions, knowledge, skills and conversely, specific beliefs, actions, knowledge and skills always express a meaning perspective. The research indicates that there are vocational meaning perspectives that lend unity to competent practice and that these structures are not necessarily captured in units of competency. In this research, the experience of learners was analysed in terms of meaning perspectives and component schemes. The learners were found to possess or develop vocational meaning perspectives which influenced the way curriculum was received. Learners appeared to relate material delivered in the form of units of competency back to the system of assumptions making up

the perspectives, and did not encounter the perspective by way of adding the units together. Units of competency may have contributed to the transformation of meaning perspectives, but the new perspectives were not a composite of the units.

It is not the contention of this paper that vocational meaning perspectives necessarily *are* the wholes posited by researchers and theorists who have articulated the fragmentation thesis, but it is likely that the structures described by the industry specialists I interviewed have a bearing on the debate. The experience of the learners contributes to the debate because perspectives described by the industry specialists appear to have played a role in VET learning. Several questions arise in the wake of the research presented here. To begin with, should VET involve fostering the emergence, development and reinforcement of vocationally-oriented meaning perspectives? Among other things, such a goal would bring with it the prospect of VET becoming implicated in promoting transformative learning, a process fraught with difficulties for some learners. There is a growing literature (e.g. King 2005, Cranton 2006, Mezirow & Taylor 2009) that addresses pedagogies for transformative learning that could inform discussion, decision making and professional development. Another question concerns the relationship between learning as meaning perspective development and transformation and CBT. Are they incompatible? The research discussed here does not suggest that they are mutually exclusive, but how they interact is not obvious. If a vocationally relevant assumption system is in place when a learner enters a CBT program, it is possible that the existence of the perspective neutralises any fragmentation of the vocational role as it is represented in curriculum. If a learner is primed for transformative learning on entering a CBT program, fragments pertaining to a role may be sufficient to 'trigger' perspective transformation. But in either case, there is room to explore ways in which CBT could more systematically contribute to learning at the level of meaning perspectives. Some of the suggestions for overcoming the spectre of fragmentation (e.g. Hagar 1995, Cornford 1997, Wheelahan 2004) may be relevant here. The last question I will pose here is about the relationship between vocational meaning perspectives and the concept of occupational or vocational identities (Phillips 1995, Winch 2003). Although such identities are usually envisaged as something consolidated through work itself rather than training, there is the interesting possibility that vocational meaning perspectives could exert some influence over the formation of vocational identities.

## References

- Ashworth, P.D. & J. Saxton, J. (1990). 'On 'Competence'.' *Journal of Further and Higher Education*, 14: 2, 3-25.
- Blunden, R. (1997). *Teaching and Learning in Vocational Education and Training*. Social Science Press, Katoomba.
- Broudy, H.S. (1972). *A Critique of Performance-Based Teacher Education*. American Association of Colleges for Teacher Education, Washington D.C.
- Brown, M. (1994). 'Competency-based training: Skill formation for the workplace or classroom Taylorism?' in J. Kenway (ed.) *Economising Education: The post-Fordist directions*, Deakin University Press, Geelong, 153-184.

Buchanan, J., Yu, S., Marginson, S. & Wheelahan, L. (2009). *Education, Work and Economic Renewal: An issues paper prepared for the Australian Education Union*. Workplace Research Centre, University of Sydney, Sydney.

Chappell, C., Gonczi, A., & Hager, P. (2000). 'Competency-based education.' in G. Foley (ed.), *Understanding Adult Education and Training*, Allen & Unwin, Crows Nest, NSW, 191-205.

Collins, C. (1993). 'Introduction' in C. Collins (ed.) *Competencies. The competencies debate in Australian education and training*. The Australian College of Education, Deakin, ACT.

Cornford, I.R. (1997). 'Ensuring effective learning from modular courses: a cognitive psychology-skill learning perspective.' *Journal of Vocational Education & Training*, 49:2, 237-251.

Cranton, P. (2006). *Understanding and Promoting Transformative Learning*. 2<sup>nd</sup> ed., Jossey-Bass, San Francisco.

Darwin, S. (2007). 'The changing contexts of vocational education: Implications for institutional vocational learning,' *International Journal of Training Research*. 5:1, 55-71.

Hager, P. (1995). 'Competency Standards: a Help or a Hindrance? An Australian Perspective.' *The Vocational Aspect of Education*, 47:2, 141-151.

Harris, R., Guthrie, H., Hobart, B. & Lundberg, D. (1995). *Competency-based Education and Training*. Macmillan, South Yarra.

Hyland, T. (1993). 'Competence, knowledge and education,' *Journal of Philosophy of Education*. 27:1, 57-68.

Hyland, T. (1997). 'Reconsidering competence,' *Journal of Philosophy of Education*. 31:3, 491-503.

King, K.P. (1998). *A Guide to Perspective Transformation and Learning Activities: The Learning Activities Survey*. Research for Better Schools, Inc., Philadelphia.

King, K.P. (2005). *Bringing Transformative Learning to Life*. Krieger Publishing Company, Malibar.

Knowles, M.S. (1970), *The Modern Practice of Adult Education. Andragogy versus Pedagogy*. Association Press, Chicago.

Lindeman, E.C. (1926), *The Meaning of Adult Education*. Harvest House, Montreal.

Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. Jossey-Bass, San Francisco.

Mezirow, J. (1978). *Education for Perspective Transformation: Women's Re-entry Programs in Community Colleges*. Center for Adult Education, Teachers College, Columbia University, New York.

Mezirow, J. & Taylor, E. (2009). *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education*. Jossey-Bass, San Francisco.

Phillips, T. (1995). 'Constructing Vocational Identities,' *The Vocational Aspect of Education*. 47:1, 5-19.

Wheelahan, L. (2004). 'What are the alternatives to training packages?' paper presented at the 7<sup>th</sup> Annual AVETRA Conference, Canberra.

Winch, C. (2003). 'Occupational Identity and Vocational Education,' *Educational Philosophy & Theory*. 35:1, 117.