

Implementing an holistic approach in vocational education and training

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Although the phrase 'holistic approach' is increasingly used in reference to vocational education and training (VET) in Australia, there appears to be a paucity of literature which extensively conceptualises or details its practical application. Existing references to an 'holistic approach' appear indicative of an integrated model seen as a vehicle for the achievement of a broad range of vocational and social capital outcomes, particularly in Indigenous contexts. This paper suggests that the theoretical framework for an holistic approach to VET is humanism and constructivist theory and that an 'holistic approach' is essentially relevant training which is contextualised and purposely tailored to the learner or community needs and goals. The paper also provides a practical schema for implementing an holistic approach in VET, which is seen as synonymous with the thematic, integrated and whole approaches to learning and curriculum development implemented in schools.

Introduction

The phrase 'holistic approach' appears to be increasingly used in relation to vocational education and training (VET) in Australia, particularly in reference to Indigenous training. However, there seems to be a paucity of research which describes exactly what is meant by an 'holistic approach' to vocational training or details what such a delivery model might look like. The most frequent conception of an holistic approach to vocational training appears to be that of an integrated model which positively impacts on learning and results in a range of more qualitative outcomes.

Some recent references to an 'holistic approach' to VET range from the 'increasing need for a holistic, whole-of-person approach to training rather than discrete packages and modules' (Allison, Gorringer & Lacey 2006:6) to the need to provide a 'holistic approach to the student in [Indigenous] training through addressing social contextual issues and not just learning outcomes' (Anderson 2006:4). Further, O'Callaghan (2005:13) found that 'Indigenous people want a focus on the holistic outcomes from VET' whereby important outcomes referred to included more qualitative constructs such as self-esteem, confidence and a sense of achievement. The National Centre for Vocational Education Research found that training helped 91% of Indigenous students to improve their confidence and/or feel better about themselves and 71% to get more involved with their community (NCVER 2004:1).

In an 'holistic approach', vocational education may therefore be seen as a vehicle for the achievement of a broad range of goals, while government goals of vocational education may be primarily economic, driven by industry (through Training Packages) and skills focused. The idea that education should be 'locally relevant' (UNESCO 2005) appears integral to an holistic approach to vocational training. The suggestion that learning should have relevance appears to be of prime importance to Indigenous learners, as exemplified by one learner's

comment that training should have ‘absolute practical relevance to work people are interested in doing’ (NCVER 2004:3). The frequency of references to ‘holistic approaches’ in vocational research in Indigenous contexts may therefore reflect the desire for such relevance in training.

The desired outcomes of an ‘holistic approach’ to vocational training across all contexts may parallel that identified by UNESCO (2005) as ‘education for sustainable development’. Some key features of education for sustainable development are that it should be ‘interdisciplinary and holistic, values-driven, locally relevant... and offer learning experiences that are integrated in day-to-day personal and professional life (UNESCO 2005). In light of this, an holistic approach in vocational training can be conceptualised as an authentic approach where curriculum planning, delivery and assessment are purposely tailored to the goals and needs of the learner or community.

Theoretical framework

Given these references, the theoretical framework for an ‘holistic approach’ appears to be that of humanism and constructivist theory. Humanism may form the theoretical underpinning of what is intended by such references to an ‘holistic approach’ to vocational training. It is characterised by the concern for the growth and full development of the whole person where what is learned reflects the values and goals of the learner (Burns 1995:130–131). Humanist teachers provide a positive classroom climate and are seen as ‘facilitators’ who are sensitive, empathic, accepting and genuine (Burns 1995:132). In constructivist learning, students construct their own knowledge and there is a purposeful nature to designing learning activities. A bridge is built between what students already know and what they are expected to learn (Gagnon & Collay 2006:4). Similarly, Dufty and Dufty (1994:74) refer to the strategy of making ‘forced

connections among topics’ to reinforce relationships which may not be immediately obvious. These may be seen as key holistic strategies in reinforcing relevance to the learner in vocational contexts.

Such holistic strategies can be seen as synonymous with the thematic integrated curriculum and whole approaches to learning implemented in schools, where several subjects are tied together through a theme to enhance meaning and explore interrelationships between subjects. In vocational training the integration and contextualization of curriculum can be purposely designed to meet the needs and goals of the learner, the community, a project, enterprise or the workplace. In vocational training, such needs and goals become the ‘thematic’ basis for curriculum design as well as the context for literacy and numeracy use. ‘Integration’ of the curriculum can be achieved by explicitly reinforcing links between the training program and these goals and in interpreting Training Packages by mapping the connections between units of competency. Thematic instruction is thought to offer opportunities for students to actively engage in a constructivist approach to learning and for students to hone in on one or more of their multiple intelligences (Meyer Meinbach, Fredericks & Rothlein 2000:6).

Implementing an holistic approach in VET

Implementing an holistic approach in VET requires the purposeful development of curriculum based on three key principles of design: curriculum should be designed in response to a needs and goal analysis of the whole person/community; literacy, numeracy and any local language should be contextualised and embedded within the training program; and curriculum should be contextualised, customised and holistically mapped.

Analysing needs and goals

The success of vocational programs appears to be dependent upon relevant training which is purposely and holistically designed in relation to learner or community needs and goals. Training Packages are a set of nationally endorsed standards and qualifications for recognising and assessing people's skills in a specific industry sector. In interpreting these, curriculum is developed through 'training programs' designed by educators and made relevant through contextualisation. Training Packages themselves are not viewed as curriculum as Down (2003:1) explains: 'training packages define only the outcome and the criteria against which the outcome is recognised'. Curriculum development is described by Wiles and Bondi (2007:73) as a process which ideally facilitates an analysis of purpose, designs a program, implements a series of related activities and aids in the evaluation process. In an holistic approach, such curriculum for Indigenous communities should be devised in consultation with or by the community, be compliant with local cultural protocols and, as such, remain in the community after delivery. Clearly, the knowledge or content for such curriculum can only come from the community. Curriculum development in holistic approaches to VET is therefore a localised, purposeful and ongoing process, as shown in Table 1.

Table 1: Implementing an 'holistic approach' to curriculum development in VET

Steps	Key questions
1. Analyse both needs and goals	What vocational, community, socio-cultural or personal needs exist? What is the learner/community hoping to achieve from the training?
2. Conduct a relevant and equitable RPL process	What prior learning is to be recognised? What links will be made with prior learning?
3. Use steps 1 and 2 to plan and develop curriculum, with the community	When we map out the needs and goals against the units of competency, do they fit? How can we tailor the training to get the best match?
4. Customise and contextualise	Does the curriculum match the learner/community needs and goals? How can I localize the curriculum to make it relevant?
5. Find holistic links between all units	When we map out these links, what themes* or assessment tasks might tie the whole program together? How will different trainers incorporate these links? What overlap and repetition exists between learning outcomes?
6. 'Build a bridge' between existing knowledge and the new learning. (Gagnon & Collay 2006) as well as needs and goals	How can we reinforce the connections between these needs, goals and existing knowledge within the program? What delivery and assessment strategies will 'build the bridge'?
7. Evaluate the outcomes and program	Were the needs and goals of the learner/community met? What social capital and other qualitative outcomes resulted?

*A 'theme' may be a project, enterprise, workplace, or learner/ community goals and needs

The 'pre-entry assessment' should be 'vocationally relevant' rather than solely based on formal literacy and numeracy assessments. In Indigenous courses, 'pre-entry assessment' should be inclusive of Indigenous skills and knowledge relevant to the vocational area.

Screening out individuals based on deficit models of formal literacy and numeracy ignores other strengths on which individuals can draw. Waterhouse and Virgona (2005:7) found that individuals achieve success in their lives despite their literacy difficulties and that people with little 'formal' literacy may have excellent skills such as creative capability. Further, multiple forms of intelligence and capability within all learners have been identified by Gardner (1983) including linguistic, logical-mathematical, musical, spatial, bodily kinaesthetic, interpersonal and intrapersonal. A pre-entry analysis of learning styles would also provide useful feedback for designing curriculum in a vocational training program.

In an holistic approach, learner needs and goals should determine the training program and links with it forged throughout delivery and assessment. Given that learning has most meaning for people when it is constructed by individuals out of their experiences (Burns 1995:133), an holistic approach requires both identifying and incorporating learner prior knowledge and experience within delivery and assessment. The needs and goals of the learner or group may be holistically linked to cultural, social and other needs and these connections should be embedded into the training design. McKenna and Fitzpatrick (2005: 69) explain that an integrated approach is based on the belief that 'adults bring knowledge and skills to learning and that it is the role of the facilitator to introduce the learner to activities which ... build on their personal experience...'. A relevant assessment of recognition of prior learning (RPL) should occur, as Smith (2004:6) found that RPL can be a powerful process which assists student career planning, impacts on learner confidence and motivation and can assist in the development of learner-centred training programs tailored to match learning styles.

The purposes for student entry or community delivery should be clearly established. In an holistic approach, it should not be assumed that a 'paper qualification' is the sole desired outcome of a

training program. Identification of student goals, perceived obstacles to achievement and intended outcomes should be determined to ensure goal achievement (McGrath 1997). In community delivery, goals should be set and 'owned' by the communities themselves. Holistic relationships may also exist between personal, family and community goals and these can be seen as beneficial in building social capital. One such interpretation of the concept of 'social capital' is that of 'aspects of social organisations such as networks, shared values and trust that help facilitate co-operation and contribute to individual and social wellbeing' (Hartley & Horne 2006:9).

Literacy and numeracy issues

To ensure 'relevance', literacy and numeracy should be contextualised, based on training needs and embedded into vocational courses. Literacy has been defined as

the integration of listening, speaking, reading, writing and critical thinking; it incorporates numeracy. It includes the cultural knowledge which enables a speaker, writer or reader to recognise and use language appropriate to different situations (ACAL 1989).

Multiple literacies can be found in various domains such as those Kral and Schwab (2003:20) labelled as work literacy, functional literacy and home literacy. In the health domain, health literacy is seen as 'a broad concept linked to the impact of poor literacy on health, general understanding of health issues, and access to information' (Hartley & Horne 2006:16). Literacy is therefore not seen as merely a set of technical skills but determined by the social and vocational context of actual literacy use.

These views of literacy appear to contrast with the teaching of literacy 'skills' in isolation, rather than through an integrated holistic approach within a social, cultural or vocational context. There has therefore been recent recognition of the need to embed literacy into vocational training so that literacy and numeracy learning is authentic. The methodology of teaming a literacy specialist with a

vocational teacher was implemented by Bates and Wiltshire (2001:1) in the Course in Applied Vocational Study Skills (CAVSS) where the purpose was to improve student completion rates by ‘modelling and teaching the connections between “theoretical” literacy and numeracy skills and processes and their practical VET application’ (Bates & Wiltshire 2001:1). This practice clearly enables literacy specialists to contextualise authentic tasks aligned to the underpinning literacy and numeracy skills which are either ‘hidden within’ or identified in Training Packages. Similarly, the Queensland government has stated it will ‘work with industry organisations to ensure that employability skills, including workplace literacy and numeracy, are incorporated within all training delivery’ (Queensland Government 2006: 44).

Literacy, numeracy and languages should be contextualised and embedded into vocational courses. Given that the numeracy skills and knowledge within vocational domains such as health, hospitality, trades and Indigenous land management clearly differ, numeracy should be holistically embedded into the ‘vocational’ context. In an holistic approach, Indigenous language use should also be actively reinforced in cultural learning tasks. Several units of competency enable students to use Indigenous languages or consult with individuals to use or learn such languages (according to community protocols, as well as for the employment of Indigenous community members as trainers and assessors).

Customisation, contextualisation and interconnections

Vocational programs should be customised, contextualised and interconnections between units of competency made explicit. While the terms ‘customisation’ and ‘contextualisation’ have distinct meanings, they appear to be used in vocational research as though they are synonymous.

Customisation is ‘the process of tailoring a program to meet the specific needs of clients ... created through combining competency

standards drawn from two or more different endorsed Training Packages to create a new qualification outcome' (NTIS 2006). Customisation thus appears to relate to the selection of units of competency. However, the selection of units of competency according to Training Package qualification 'rules' may not always align neatly with learner or community needs and goals. In devising holistic training solutions, a 'paper qualification' may not be the 'prized' nor desired outcome of a training program, as units are selected to match a learner or community goals and needs, such as emergent responses to drought or cyclone management.

In tailoring a program, strategies such as the clustering of related subjects, mapping the links between units and presenting them in a matrix provide a 'bigger picture' overview. Related units of competence can be grouped together and linked assessment tasks designed to reduce repetition in training and assessment. For example, disciplines such as Indigenous science may contain inherent holistic connections between people, flora, fauna, country and cycles or seasons. To study each in isolation within separate units of competency does not enable the links between them to be explored, especially if each unit is taught by different trainers. Further, activities such as *FPINCRO34A Utilise Burning for Natural and Cultural Resource Management* may have interconnected political, economic, social and spiritual dimensions for the Indigenous learner and result in more 'holistic' outcomes, rather than mere 'skills' in fire management. Such holistic relationships should therefore be identified and shape delivery and assessment.

By comparison, contextualisation is 'the addition of industry or enterprise specific information to a unit of competency to improve the standards relevance to industry' (NTIS 2006). Contextualising has been defined as an activity undertaken by a teacher to make units of competency meaningful to the learner (DEST 2005:6). It is contextualisation which appears to allow for the 'individualisation'

and ‘localisation’ of training material, enabling learners to see the program’s relevance. Learning material can be specifically designed for individuals and communities with tasks based on the local culture and learning needs. In doing this, ‘amendments to the range statement can be made to reflect local or organisational needs as long as they do not diminish the breadth or portability of the competency’ (DEST 2005:9).

Given the apparent paucity of research on holistic approaches to vocational delivery, a comparison of key concepts in holistic and non-holistic approaches to curriculum development in vocational training is suggested in Table 2.

Table 2: Comparison of key concepts in holistic and non-holistic VET curriculum

Holistic	Non-holistic
Integrated/embedded and interdisciplinary	Fragmented
Networks and interconnections made explicit	Units/concepts taught in isolation
Inclusive of social capital outcomes	Focused on skills based outcomes
Learner centred and determined	‘One size fits all’ approach
Flexible in delivery and assessment	Rigid in delivery and assessment, authoritarian
Innovative	Standardised
Customised and contextualised curriculum reflective of learner needs and goals	General curriculum Learning hindered by jargon
Assessment tasks account for ‘multiple intelligences’ (Gardner 1983) and learning styles	Standardised course assessment Static curriculum
Relevant	Irrelevant pre-entry and course assessments
Authentic	Unilateral focus on ‘the business of VET’

Potential impediments

Despite calls for an ‘holistic approach’ to vocational training, there appears to exist within the VET system possible impediments to authentic implementation. Such impediments include the need to create a greater awareness of moral rights and to address professional development, delivery and assessment issues.

Encouraging innovation and creativity

Innovation and creativity can be seen as integral to an holistic approach to vocational training. ‘The generation, dissemination and application of knowledge is the driving force of economic and social development’ (State Development and Innovation, Queensland 2006:4). In the VET sector, best practice training models, innovative ideas, intellectual property and teaching style can be considered to be valued assets. Training Packages themselves ‘define only the outcome and the criteria against which the outcome is recognised’ (Down 2003:1). Yet while universities have and enforce rules regarding plagiarism, copyright and ethical clearance in research processes, protocols pertaining to these appear less visible in the general VET sector. Moral rights are enforced under the Copyright Amendment (Moral Rights) Act 2000 and are personal rights that belong to creators (authors) in relation to their work, as distinct from the “economic rights” included in copyright (State Development and Innovation, Queensland 2006:54). Moral rights provide recognition for creators through the right of attribution, right against false attribution and right of integrity. Awareness of moral rights may prevent others (for example, those in positions of authority) from assuming custodianship by accessing the work of others and claiming credit for it, or modifying an author’s work without their consent. Given increasing electronic availability, formal and informal public sector ‘partnership’ resource sharing agreements and the ‘recycling’ of contextualised curriculum in VET, a greater awareness of moral rights is clearly necessary.

Delivery and assessment issues

Regarding professional development programs for teachers, Black (2004:5) explains that there may be an imbalanced 'emphasis on business and marketing related aspects, at the expense of the classroom and pedagogy'. Within such a system, it is possible that teaching, administrative, business and managerial domains may struggle with competing interests in the VET environment. Time allocated for meaningful and relevant professional development activities, curriculum and program development may be consumed by 'the business of VET'. Further, in VET, the timeframe between initial student assessment, implementing an holistic approach to curriculum development (Table 1), resource development and actual course delivery may be inadequate.

The provision of VET trainer and assessor professional development opportunities in interpreting Training Packages may be another possible impediment to implementing an holistic approach. Whether the *TAA04 Training and Assessment Training Package* adequately prepares trainers and assessors to apply an holistic approach or truly embed literacy and numeracy into vocational delivery does not appear to have been measured. McKenna and Fitzpatrick (2005:6) found that 'the extent to which language, literacy and numeracy is delivered successfully in an integrated approach is dependent on the ability of facilitators and assessors to interpret vocational training packages and to develop appropriate teaching and learning strategies'. In a holistic framework, it may be that primary school trained teachers can transfer useful practices to vocational training such as the interdisciplinary 'across the curriculum', thematic and 'whole language' approaches utilised in schools. Further, the degree to which holistic interconnections are made in vocational training may be reflective of the use of different trainers and assessors for different units (the fragmented approach) and the 'co-ordination' of delivery.

There also appears to be a paucity of research into the role of online learning in 'holistic approaches' to VET. Whether online curriculum is continually contextualised and how the desirable personable qualities of sensitive, empathic, accepting and genuine facilitators (Burns 1995:132) might be expressed, does not appear to be measured. However, in the public sector, trainers and assessors may be generally employed on the basis of their knowledge of the particular organisation and VET system, rather than on humanist principles. In general, selection and recruitment of teachers in the VET public sector appears to be primarily based on addressing generic selection criteria which requires an understanding of 'the organisation' and 'the VET system' rather than on values, expectations and 'examples showing how ideas have been transferred into teaching practice' (McGrath 1998:25).

There may be other potential administrative impediments in the VET system. If training is to be relevant, then RPL needs to be authentically implemented. Yet 'there is no clear agreement among writers, researchers and major policy-influencing agencies regarding what RPL is, does or encompasses, while the associated administrative costs' may be disincentives to implementation (Smith 2004:5). Similarly, poor pedagogical practices can be seen in the text, format and lengthy wording of course brochures and learner resources for students with minimal formal literacy, where the abstract language of Training Packages and other jargon has been unnecessarily replicated. It is possible that, in some cases, a misconceived approach to Australian Qualifications Framework compliance and administrative marketing concerns may preside over good teaching practice.

Conclusion

An holistic approach to vocational training in Australia can be conceptualised as an authentic approach where curriculum planning,

delivery and assessment are purposely tailored to the goals and needs of the learner or community. Relevance can be best achieved by embedding appropriate literacy and numeracy within contextualised assessment tasks and reinforcing the connections with the learner or community needs and goals. In holistic approaches, a bridge should be built between what students already know and what they are expected to learn (Gagnon & Collay 2006:4) and ‘forced connections among topics’ made to reinforce relationships which may not be immediately obvious (Dufty & Dufty 1994:74). These may be seen as key holistic strategies, as seen in thematic approaches to school curriculum planning where several subjects are tied together through a theme. While innovation and creativity appear integral to an holistic approach, a lack of awareness and enforcement of moral intellectual property rights and a unilateral focus on the ‘business of VET’ may be impediments to the long-term retention of talented staff and the expression of innovation in the VET sector.

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