

THE IGNORED PEDAGOGICAL DIMENSION IN VET DELIVERY OF THE TRAINING PACKAGES

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Abstract

Application of the Double Heuristic Method (DHM) to the delivery of programs in Vocational Education and Training (VET) in Queensland (Azemikhah 2010) has been implemented in this research resulting in the emergence of a new theorising of the pedagogical engagement in the VET sector. Key elements of the findings will be shared in this paper, and it will be argued that these elements and the grounded theory that emerges are central to the heart of VET pedagogy.

The DHM graphical interface template (GIT) was designed as central to doctoral research conducted by the presenter. The template was designed to bring about the pedagogical clarity that was much needed in the VET community. This paper discusses the two inter-related theories that have emerged from this research, i.e., Meta competency theory (MTC) and Confusion to Clarity theory (CTC). While the Meta-competency theory argues that synthesis of the segmented component parts leads to meaning making and pedagogical clarity, CTC establishes that pedagogical misunderstanding in VET delivery leads to clarity only through implementation of a way of working where elements are pedagogically defined and synthesized.

Introduction

The paper on the first stage of data collection and analysis was presented at 2010 AVETRA conference in which the emerging categories were elaborated (Azemikhah, 2010). This paper is the continuation of the 2010 AVETRA paper and reports on the second stage of data collection and analysis. During the second stage of data collection and analysis the identified categories were further analysed resulting in two emerging theories, i.e., Meta competency theory (MTC) and Confusion to Clarity theory (CTC).

Problems in the context of Training Packages

The data collected in the research undertaken as part of a doctoral study indicate that problems in the context of Training Packages are directly related to unclear pedagogical inter-relationships of the segmented component parts of competency based learning. While these pedagogical ambiguities around the inter-relationships of the constituents of competence were the cause of much confusion in the early stages of implementation of Training Packages, in later stages, even up to the present time, this lack of clarity has led to superficial implementation and superficial compliance in VET delivery. Further, the High Level Review in 2004 highlighted that there is a 'middle ground' around the constituents of competence that has been largely ignored, albeit necessary, to ensure that a 'rich picture' is developed pedagogically when implementing the training packages (Schofield and McDonald 2004) .

The data collected in this research indicate that the units of competency are confusing because they require teachers to deliver a range of component parts without clearly defining pedagogical inter-relationships of such components. Hence, the units of competency lack a 'map' or a comprehensive overview prescribed by the HLR (Schofield and McDonald 2004). This comprehensive overview or 'Rich Picture' (Schofield and McDonald, 2004) should depict the pedagogical inter-relationships of the many component parts that are needed to be delivered in the Training Packages context. The data collected in research indicate that this remains the case.

The data collected in this research indicate that the initial pedagogical confusion experienced in delivering the Training Packages still persists and is not completely resolved. The references that were made by participants to this issue, in the past, are a wake up call for those who believe otherwise. Hence, it is important to pay particular attention to such data. References confirm that the unit of competency is still causing confusion. It has been reported that "the units of competency have been confusing because they introduced so many component parts with no structure that integrate them together". Such comments support the need for pedagogical clarity in the delivery of the Training Packages.

A number of studies (Gross and Associates 1971; Fullan 2001) have argued that finding clarity among complexity in educational reform remains a major problem. The more complex the reform, the greater is the problem of clarity (Fullan 1999). Down (2003:4) has pointed out, "The shift in educational thinking and approach required by Training Packages is a substantial one, one which takes time to become integrated into practice". This suggests that the Training Packages, as a complex reform, have continuing problems of clarity.

According to this research, the problems of clarity in the Training Packages context are characterised by pedagogical 'fuzziness' around the inter-relationships of the constituents of competence and other component parts, that have become part and parcel of VET delivery. For example, the High Level Review (HLR) has pointed out that, "any link between Training Packages and VET pedagogy is tenuous" (Chappell et al 2003:13). According to the data collected in this study, there has been a mist of confusion and 'fuzziness' in terms of pedagogical inter-relationships of the disjointed and segmented component parts in Training Packages delivery.

In such an environment that lacks pedagogical clarity, implementation will continue to be superficial as has been the case. No amount of pressure on implementers or practitioners will change the situation. The push for implementation does not remove 'fuzziness'. Rather it increases superficial compliance. Capability building in such an environment does not dissipate the mist of confusion. Capability building may help practitioners to become empowered of seeing through the mist but it does not remove pedagogical 'fuzziness'. No auditing effort can produce pedagogical clarity for implementation.

The answer to the problem of clarity is provided by Schofield and MacDonald (2004:5) who pointed out that, "Industry is indisputably responsible for specifying work performance outcomes, and providers for deciding how best to impart the necessary skills and knowledge, but there is also a 'middle ground' around the constituents of competence. This ground, largely ignored, until now, would be best

covered by industry, provider and equity perspectives being brought together to ensure that a rich picture is developed of the skills and knowledge needed to achieve competence”

Thus, to address the problems of clarity a ‘Rich Picture’ of knowledge, skills, attributes and performance criteria in the Training Packages delivery is required that can pedagogically depict the relationships of these components for pedagogical understanding and clarity. A recent definition of competency (NQCa, 2009:6) as the “consistent application of knowledge and skills to the standard of performance required in the workplace” acknowledges the importance of these component parts in the make up of the ‘Rich Picture’.

Our Response

In response to the HLR call (Schofield and McDonald 2004) the DHM graphical interface template (GIT) was designed as the ‘rich picture’ highlighted by HLR to bring about the clarity that was much needed in VET community. The DHM provides a framework that pedagogically defines and diagrammatically depicts the inter-relationships of the constituents of competence and other components in the units of competency of the Training Packages.

The DHM method is a two-step (double heuristics) process, using ‘W’ diagram as an extension of ‘V’ diagram proposed by Gowin and Alvarez (2005). While Gowin and Alvarez (2005:32) assert that, “the V diagram is a heuristic that can be used to better analyse and understand the structure of knowledge of a given topic”, ‘W’ diagram is used to analyse and understand the structure of competency that includes, inter alia, the understanding of knowledge. While “‘V’ diagrams decipher the complexities of construction of knowledge and knowledge- making” (Gowin & Alvarez 2005:32), the “‘W’” diagram deciphers complexities of competencies and competency development. Hence, DHM is a knowledge integration device. Its purpose is to construct knowledge through an integrated approach. The integration process involves all the constituents of competence (propositional knowledge and dispositions) and their relationships to performance (procedural knowledge).

Hence, the DHM is a theoretical framework that explains a system of relationships that exist between the various component parts of the units of competency of the Training Packages. The DHM model argues that the component parts in the Training Packages delivery have meaningful pedagogical relationships amongst themselves and with the competency learning events (CLE). The DHM theory explains these relationships pedagogically and emphasizes that one should master teaching in VET by focusing on how to integrate the component parts based on their pedagogical underpinnings. This research further emphasizes that understanding these pedagogical underpinnings is at the core of VET pedagogy and, thus, crucial in understanding the competency development process.

Gowin and Alvarez (2005:xvi) have postulated that, “knowledge is not discovered but is constructed by people and it has a structure that can be analysed”. Gowin and Alvarez (2005:xvi) have further asserted that, “The V is a tool that helps us to identify the components of knowledge, clarify their relationships, and present them in visually compact and clear way”. The DHM diagram is a tool that helps VET teachers to

identify the component parts of competency, clarify their relationships and present them in a visually compact and clear way. Gowin and Alvarez further elucidated that, the exciting aspect of using the V is that it does help us to see more clearly how knowledge is constructed. The data has revealed that this has been the case in terms of using W diagram or DHM framework. Thus, the primary intent of the DHM is to stimulate VET teachers thinking while planning, designing and delivering competency based training programs. The component parts, when situated in the DHM, simplify the complexity of VET delivery and solidify them in a meaningful way in the array.

Hence, this response to the High Level Review call for clarification is the development of a teaching framework: The DHM graphical interface template (GIT). The template is designed to frame the 'rich picture' identified by HLR in 2004 (Schofield and McDonald 2004) and to bring about the clarity that is greatly needed in the VET community based on the following guiding principles:

Principle 1 – Competency is a human construction

Principle 2 – Being a human construction competency has a structure

Principle 3 – Competency Structure is comprised of a number of component parts

Principle 4 – Competency component parts are pedagogically inter-related

Principle 5 –The DHM represents the knowledge of a competency learning event (CLE) in the context of Event Based Learning (EBL) that has emerged from this research.

Principle 6 –The DHM graphical interface template (GIT) clarifies the ambiguities in VET teaching and makes assessment and session planning meaningful

Principle 7 – The DHM structure provides a basis for both validation and moderation in VET teaching and assessment (NQC, 2009b:6)

Principle 8 – The DHM mediates between the conceptual side and physical side of the DHM graphical interface template (GIT) using skills as the bridge to achieve the equilibrium

Principle 9 – The attained equilibrium, then, is further mediated to the strategy side by the use of focus question(s)

The above nine guiding principles have been formulated on the basis of the most significant academic works on knowledge construction such as Gowin V (Gowin & Alvarez 2005) approach to make meaning in situations where components of knowledge are segmented. Hence the above principles align the DHM with Gowin V approach in knowledge construction to address these anomalies.

The DHM diagram was developed as an extension of V diagram (Gowin & Alvarez 2005) to assist in understanding the meaningful pedagogical inter-relationships between the component parts in the Training Packages context, as well as between the competency learning events and component parts. When completed, a DHM diagram represents the record of a 'Competency Learning Event' (CLE). The completed DHM diagram illustrates the mapping of the component parts that are inherently embedded in the competency learning event (CLE) and are pedagogically inter-related.

Emergence of new theories

The application of the DHM to VET delivery was tested by participants in the research. The DHM implementation resulted in the emergence of two inter-related theories, i.e., Meta competency theory (MTC) and Confusion to Clarity theory (CTC). Meta Competency Theory is comprised of three elements of synthesizing, clarifying and confirmatory (roles of DHM) that contributes to meaning making.

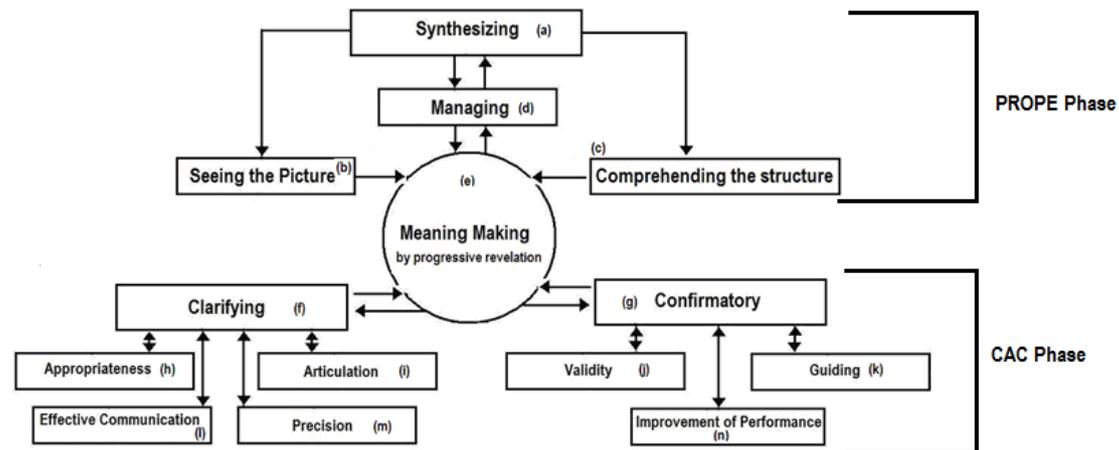


Figure 1 – The Meta Competency theory

Synthesizing Element

This element focuses on how teachers try to make meaning using the DHM (how the DHM assisted them to make sense of the many components and varied requirements, for the implementation of the Training Packages). The three key concepts that underpin this element are seeing the picture, comprehending the structure and VET delivery planning.

The Synthesizing role enables the teacher to paint the picture of the assessments or sessions by knowing, for example, where the skills are in the picture, where the knowledge is and where the performance criteria are in the picture.

Clarifying Element

In the context of Training Packages, teachers see the Double Heuristic Method (DHM) as a clarifying approach for VET delivery in Australia, arguing that the clarity is at the heart of the VET pedagogy. The Double Heuristic Method is seen to assist teachers to clarify the multi-faceted relationships of many and varied components in the delivery of Training Packages that VET teachers are presenting to their students. There are four key concepts that underpin Clarifying, which are Appropriateness, Articulation, Effective Communication and Precision.

Confirmatory Element

The intent of Meta-competency phase is to promote meaning making (e) through a process that commences by synthesizing (a), then clarification (f) and leading subsequently to confirmation (g) of the VET teachers' work. These three inter-related elements of Meta-competency Theory interact to allow the meaning (of competency) pertinent to a competency learning event (CLE) to emerge. The three key concepts that underpin the Confirmatory element are validity, guiding, improvement of performance

Concurrent phases of the theory

The Meta Competency theory, a new theorising of the pedagogical engagement in the VET sector, operates in two concurrent phases. The two inter-related phases that have emerged from this research are the 'progressive revelation of pedagogical engagement' (PROPE) phase and 'Clarifying and confirmatory' (CAC) phase (Figure 1). These are now discussed individually and their relationship is explained.

The progressive revelation of pedagogical engagement (PROPE) phase

First, the process of 'Comprehending the DHM structure', as depicted on the right side of the diagram (a, c, e, d, a) in Figure 1 occurs at the outset of the process where the DHM template comprising of two substructures of the First and Second Heuristics is introduced. How the Second Heuristic interacts with the First Heuristic is paramount in VET pedagogy and must be clarified at this stage. Hence, the process of comprehending the structure includes full understanding of the component parts and their positions in the specified locations on the graphical interface template (GIT). This initial understanding is crucial, as it contributes to the meaning-making through progressive revelation. During this process, the participating teachers comprehend the two heuristics, the interactions and inter-relationship of the two heuristics, as well as the role and purpose of each heuristic.

After comprehending the structure, teachers begin to assemble segmented component parts into the graphical interface template (GIT). As the 'picture' of the assessment or session is progressively being revealed, it contributes to the pedagogical meaning-making process for the teachers. The processes of progressive revelations and meaning-making, as dual parallel processes are interacting in the teachers' minds contributing to the emergence of the next revelation. For example, in the Second Heuristic, teachers reflect on questions, such as what strategies to use, what focus questions are the most suitable. The process of pedagogical meaning-making unfolds as the answers are progressively revealed to them. The data has indicated that this is the case. The process has been referred to by participants as an unfolding process that leads to a final revelation, as the 'big picture'.

Second, the process of seeing the picture (a, b, e, d, a) that is illustrated on the left side in Figure 1 is based on a number of teacher revelations that occur in a sequence of unfolding insights while implementing the DHM. Each revelation leads to the next revelation progressively. The process of progressive revelation within this phase eventually results in the final and full revelation that the participating teachers have referred to as the 'picture'. As the component parts are placed by participants in specified locations, in a number of stages of the DHM, the full 'picture' of VET

delivery for the relevant competency learning event (CLE) is progressively revealed. The full 'picture' appears in the final stage where significant pedagogical meaning is achieved through progressive revelations. These progressive revelations bring meaning to VET pedagogy because various component parts, such as performance criteria, concepts variables, skills, required knowledge and elements inherent in the competency learning event (CLE) are meaningfully manifested and interconnected. Throughout these manifestations, the relevant areas of knowledge, range of elements, together with their chosen strategies and focus question(s), also contribute to the pedagogical meaning-making for VET delivery in the process.

This process of pedagogical meaning-making has emerged as a parallel process to progressive revelation (PROPE) and is at the centre of Meta-Competency phase of the theory. These two parallel processes of progressive revelation (PROPE) and the meaning-making continue until the 'picture' of competency learning event (CLE) emerges. What this theory entails is that teachers, in order to make meaning of the delivery of the unit of competency that they teach, apply the stages of progressive revelation by embedding the segmented component parts that match with the competency learning event (CLE) into the DHM graphical interface template (GIT), 'the DHM skeletal structure' or 'framework'.

The process of progressive revelation commences after teachers are acquainted with the DHM graphical interface template (GIT) and concludes when the complete 'picture' of CLE, in the context of the unit of competency, is revealed. As it is illustrated in the Figure 1, these processes contribute to both meaning-making and progressive revelation processes at the same time.

Clarifying and Confirmatory (CAC) phase

As the 'picture' that has been progressively revealed is completed, it is described as a process of clarifying. It also confirms what teachers have been trying to achieve in their teaching. Hence, the DHM synthesizing role leads to pedagogical meaning-making by the progressive revelation of the resultant 'big picture' or more correctly an integrated map of the competency events. As the progressive revelation is in progress, the emerging 'picture' provides opportunities to clarify and confirm. The 'unfolding' process involves interaction between this process of progressive revelation (PROPE) and the process of pedagogical meaning-making. It is this interaction that contributes to pedagogical understanding (grasping) of the meaning of VET delivery that is the core proposition of this model. Without this interaction, the understanding and grasping the meaning of VET pedagogy continues to be tenuous.

Thus, pedagogical meaningfulness is being progressively revealed, while the component parts are being progressively synthesized into the DHM structure as a 'picture'. The grasping of the meaning occurs at the point of full synthesization when the process of progressive revelation is complete. At this point, the process of progressive revelation starts to make sense to teachers, resulting in the grasping of the meaning of VET delivery. This, in turn, results in deeper understanding of VET delivery, leading to clarification and a more mature confirmation of their work. The PROPE phase has established that the elements of progressive revelation and meaning-making are working as parallel processes leading to the realization of the 'picture' of competency learning event (CLE) by teachers.

Teachers, in seeing the full ‘picture’, grasp the meaning of VET delivery in the context of the unit of competency; they comprehend the true sense of the unit’s application in the Training Packages context. In this way, they are able to clarify the ‘fuzziness’ and confirm their practice of delivery as VET teachers.

Conclusion

This research is pioneering in traversing the pedagogical ‘fuzziness’ around the inter-relationships of the segmented component parts in VET delivery to clarity and emphasizes this passage as the most significant and vital in Australian VET delivery at the present time. As it was discussed in the paper, while the High Level Review (HLR) emphasized the ‘middle ground’ around the constituents of competence (Schofield and MacDonald, 2004), they also pointed out that it is largely ignored and a rich picture is needed to address it. The data collected in this research confirms the view that the “Rich Picture” is required as, without a ‘picture’, competency cannot be visualized and pedagogically delivered. There is a need for the rich picture that dissipates the pedagogical ‘fuzziness’ and promotes ‘clarity’ as the following diagram illustrates.

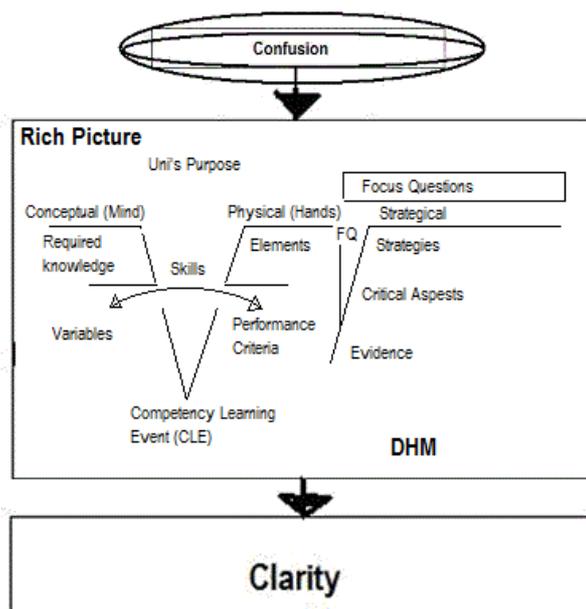


Figure 2 – Confusion to Clarity (CTC) theory

Confusion to Clarity (CTC) theory argues that the delivery of a phenomenon such as competency with fragmented component parts has always been confusing, because these component parts are segmented and are presented in a disjointed manner. The above diagram articulates that in order to transform confusion of this nature into clarity a pedagogical framework, such as, Double Heuristic Method (DHM), is required, a pedagogical framework where parts are meaningfully inter-related on sound pedagogical underpinnings. Hence, this research proposes Meta Competency (MTC) theory, confusion to clarity (CTC) theory and the DHM graphical interface template (GIT), as the ‘Rich Picture, to deliver this clarifying proposition.

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