The CAT amongst the pigeons: A reflective framework approach to personalised professional development in open, flexible and networked learning.

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Reflective-frameworks are designed to assist educators to critically reflect on their professional practice. In essence individuals make meaning from their professional experiences in relation to accepted best-practice. This paper will explore the use of a reflective-framework in open, flexible and networked learning. The development of a competency assessment tool ,the CAT, to help educators reflect on their current use of e-Learning applications and the pedagogy of their practice, is decribed. By working through the CAT individuals can identify areas of strength and examine areas requiring development. The result of this critical evaluation is the generation of personal learning plan (PLP) in the effective use of e-learning. How the reflective framework operates as an *empowerment* approach to professional development is explained in detail. This paper argues that the use of the CAT extends the repertoire of teaching skills, improves professional practice and ultimately enhances the learning environments of learners and teachers.

Keywords: personal learning plans, professional development, reflective practice

Background

Historically, educators in the tertiary sector have generally been employed for their depth of knowledge of a specific discipline rather than their expertise in teaching practice. Success was measured by learner acquisition

of discipline knowledge and mastery of identified skills. However, driven by fiscal restraints and the need to remain globally completive in an increasingly knowledge-based, networked world, a number of Governments have introduced a raft of educational reforms. In the New Zealand tertiary education sector these reforms have focused on firstly, improving performance and efficiency ensuring more learners from a broader ethnic, cultural and educational background can complete higher qualifications at an affordable cost (Maori Tertiary Reference Group, 2003: Ministry of Education, 2010) and secondly, increasing the organisational integration of e-learning systems and Information and Communication Technology (ICT) applications for administrative purposes and teaching and learning (Ministry of Education, 2004). As a consequence of these reforms, tertiary institutions have widened entry criteria and greatly increased enrolments. In essence they have created a cohort of culturally diverse learners that hold multiple-views of phenomena and has multiple-meanings for words that have proved to be useful to them in making sense of the world that surrounds them (Clayton, 2009). In the learning environment created by this cohort, it is an expectation educators will adapt teaching strategies and content to meet the educational, social and cultural needs of this diverse audience (Zimmerman & Schunk, 2001). Educators can no longer rely on their depth of discipline knowledge, they need to critically reflect on their current professional practices and from this reflection identify how they can extend their repertoire of teaching skills. An identified risk inherent in this self-reflective approach is the dependence on individual educators having the requisite ability to meaningfully reflect upon their current professional practice and have sufficient depth of pedagogical knowledge to then create a personalised learning plan. To mitigate this risk, it is argued a self-reflective framework approach, where educators are able to make meaningful connections between their current professional practices and established standards in teaching and learning, is required (Clayton, Elliott, & Saravani, 2009).

Context

The rapid advancement of Information and Communication Technologies (ICT) has been referred to as the third revolution in the public dissemination of knowledge and in the enhancement of teaching and learning. The first revolution being the creation of a written language and readable records and the second the development of movable type and the publication of books (UNESCO, 2008). To participate successfully in this new "knowledge age" individual New Zealand educational institutions and successive Governments have increased their investments in infrastructure, hardware and software applications (Ham, Gilmore, Kachelhoffer, Morrow, Moeau, & Wenmoth, 2002). However, institutions and governments are aware physical technologies on their own will not meet national goals. They acknowledge that the level of competence and confidence of staff in the educational use of ICT will directly impact on the capacity and capability of institutions to positively engage their learners in ICT-supported learning environments (Clayton, Elliott & Saravani, 2009a).

In 2010 the Waikato Institute of Technology recognised the need to provide professional development (PD) in ICT for staff to meet both the needs of its increasingly culturally diverse student population and institution aspirations. The Certificate in Open, Flexible and Networked Learning (COFNL) consists of 5 modules based on identifiable Unit Standards registered with the New Zealand Qualification Authority (NZQA, 2011). Basing the certificate on these registered standards ensured the institute was following best national practice and aligned institutional PD delivery with national goals.

The CAT: A Reflective Practice Framework

The concept of reflection has been widely debated in educational circles for a number of years (Kreber, 2004: Brockbank, & McGill, 2007). To advocates of reflective practice, deep-learning is dependent on individuals making meaning from their experiences through reflection (Sugerman et al, 2000). To engage participants in reflective practice and to aid them in making connections between identified pedagogical standards in ICT and their previous experiences, a self-reflective competency assessment tool (The CAT) was created for prospective

candidates of a certificate in Open, Flexible and Networked learning (COFNL). The CAT was designed to enable prospective candidates to assess their current competencies against defined standards. The CAT interface provides the prospective candidates with a series of statements relating to each of the five modules within the COFNL. The statements within each module are classified within three categories: Understanding, Evidence and Moderation. The three categories are defined below:

- *Understanding:* This division prompts the learner to reflect on their personal knowledge of the defined area of open flexible and networked learning specific to an individual module.
- *Evidence:* This division asks the prospective candidate if they can provide evidence of their understanding of the defined area of open flexible and networked learning, specific to an individual module.
- *Moderation:* This division asks the prospective candidate how the evidence they indicate they can provide, has been evaluated.

Candidates are asked to reflect upon and then respond to individual statements within each category using a 'drop-down' menu. The menu has four possible responses to each statement: Disagree, Partially agree, Agree, Strongly agree. The CAT interface is illustrated in figure 1 below.

Examine the relationships between participants in OFNL.	
Understanding	
I have a good understanding of the relationships (such as direct, indirect, active, passive, interactive, independent, and interdependent) that exist in open, flexible and networked learning environments.	Partially agree
I have evaluated the impact different relationships between participants in OFNL (such as direct, indirect, active, passive, interactive, independent, and interdependent) have on student learning in different contexts.	Strongly agree
Evidence	
I can provide digital evidence of my understanding of the relationships (such as direct, indirect, active, passive, interactive, independent, and interdependent) in open, flexible and networked learning environments.	Partially agree
I can provide digital evidence of how my understanding of the relationships between participants in OFNL (such as direct, indirect, active, passive, interactive, independent, and interdependent) has been used in my practice in different contexts.	Agree
Moderation	
My understanding of the relationships (such as direct, indirect, active, passive, interactive, independent, and interdependent) in open, flexible and networked learning environments has been peer reviewed.	Select
Practical application of my understanding of the relationships between participants in OFNL (such as direct, indirect, active, passive, interactive, independent, and interdependent) has been peer reviewed and assessed.	Select

Figure 1: Categories, statements and responses

Personalised Learning Plans

As candidates progress through the CAT, their answers affect the indicator colour on the main index page. The indicator colours are based on the familiar "traffic light" theme;

- *Red:* This indicates to the candidate they have limited knowledge and/or experience of the identified standards. It also indicates how these limitations can be addressed.
- *Yellow:* This indicates the candidate has some knowledge and/or experience of the identified standard. It also indicates how this existing knowledge/experience can be built upon.
- *Green:* This indicates to the candidate that they meet the requirements of the identified standard. It also indicates how they can continue to build knowledge and experience in other areas.

As the prospective candidate progresses through the categories and statements for each module, their responses provide a pictorial 'carpet'. This visual carpet enables individuals to select, which module(s) they need to review, which competencies they need to develop, what evidence they need to provide and how they should

evaluate their practice. The reflective framework and visual carpet is illustrated in figure 2 below.

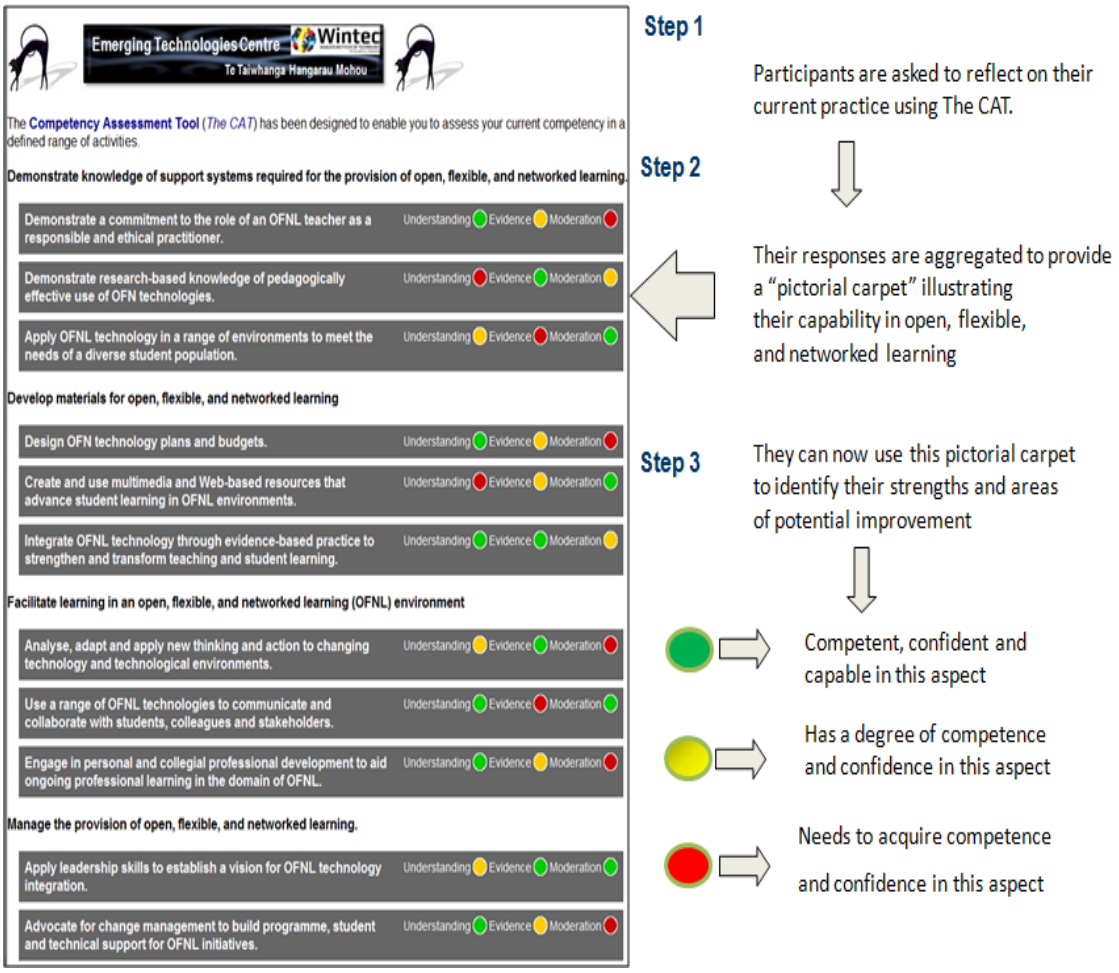

Figure 2: The Cat providing a visual carpet.

The visual carpet produced from candidate engagement with the CAT provides individuals with:

- An assessment of their current knowledge, experience and understanding of individual aspects of the domain.
- An indication of a range of potential points to begin their personalised learning journey, and
- Navigational tips to map a learning route from starting point to intended achievements.

In essence engaging with The CAT assists the learner in the creation of a personalised learning plan (Ward, & Richardson, 2007) enabling them to become self-regulated learners (Zimmerman, 1990).

Discussion and Conclusions

This paper has argued recent reforms have encouraged the creation of diverse cultural cohorts and the integration of e-learning applications in course delivery. As a consequence, educators are now engaging with increased numbers of culturally diverse learners in ICT environments they are unfamiliar with. Educators are encouraged to reflect on their prior experiences, acknowledge the influence of learners' prior experiences on the learning process and engage in the design of learning events to meet the needs of this diverse cohort of students. This requires a fundamental shift in educators' existing perceptions of teaching, learning, the curriculum and the use of e-learning. However, this shift places extra demands upon individual educators. An inherent risk is the dependence on individual educators having the requisite ability to meaningfully reflect upon their current professional practice and have sufficient depth of pedagogical knowledge to then create a personalised learning plan. To mitigate this risk, it is argued a self-reflective framework approach, where educators are able to make meaningful connections between their current professional practices and accepted standards in teaching and learning, is required. This reflective-framework approach enables educators to work independently, manage time effectively, and think self-critically. It empowers them as professionals.

This paper argues the effects of empowerment models of learning, driven by reflective-frameworks such as The CAT will be positive. This approach will enable educators to both make meaning from their experiences and actively learn from engaging in a reflective process.

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Please cite as: Clayton, J., and Elliott, R. (2011). The CAT amongst the pigeons: A reflective framework approach to personalised professional development in open, flexible and networked learning. In G.Williams, P. Statham, N. Brown, B. Cleland (Eds.) *Changing Demands, Changing Directions*. *Proceedings ascilite Hobart 2011*. (pp.244-249). https://doi.org/10.14742/apubs.2011.1849