

## Personalising learning through self-reflective questionnaires

### Making technological innovation work

**John Clayton, Emerging Technology Centre Director, Waikato Institute of Technology**  
**Sara-Jane Saravani, Manager Learning, Waikato Institute of Technology**

Over the last two decades advances in information and communication technologies (ICT) and digital databases have encouraged flexibility in course delivery. Technical refinements, growing sophistication and increased access to ICT functions and digital resources encourage educators to extend and enhance these flexible environments by developing intelligent tutoring, testing and feedback systems. Learners now have more choice in how they will learn, the time they learn and the place the learning will occur. However, these increased opportunities do not necessarily mean there is a corresponding growth in learner participation or success. Educational organisations introducing these enhanced flexible environments need to address three fundamental issues.

1. how do they know if learners have the required digital literacy skills to participate in fully in the ICT rich environments created,
2. how will learners be informed of the minimal digital literacy skills needed to be successful in these environments
3. how can learners acquire the digital literacy skills identified?

The concept of self-reflection (the conscious act of purposefully thinking about activities undertaken) has been widely debated in educational circles. Advocates of reflective practice, argue deep learning occurs when individuals make meaning from their experiences through the process of reflection. The outcomes of the reflective process help individuals firstly, highlight their current skill and knowledge and, secondly, identify areas where areas to be strengthened. In essence, reflection helps learners identify individualised learning pathways that are on-going (sustained), connected to their needs (situated) and focused on individually generated tasks (authentic). At the ALT-C conference in 2012 staff from the Waikato Institute of Technology (Wintec), a vocational education and industry training provider, disseminated the preliminary findings of a Student Technology Competency Project (STCP). These findings described the initial development of an interactive self-reflective questionnaire prototype focused on adult learners, with potentially low digital literacy skills, enrolling in Wintec courses for the first time. The prototype was designed to provide learners a pictorial profile of their existing capabilities. The prototype was based on a “traffic light” concept – Green: good to go, Orange: may need to review skills, Red: need to address this aspect.

This session will expand upon these initial findings and describe the second iteration of this prototype. It will outline

- How the minimal digital literacy skills required by learners to complete course were re-examined and validated.
- How the identified skills were mapped to learner support resources and short courses.
- How the online self-reflective form was refined to include feedback and links to identified resources.

This session will conclude by reviewing and discussing the anticipated benefits for learners of generating Personal Learning Plans (PLP) from self-reflective frameworks.

Clayton, John (2012) *Mass-customisation and self-reflective frameworks: Early developments in New Zealand*. Research in Learning Technology, 20(Supp). pp. 189-203

Hwang, Gwo-Jen, Tseng, Judy, & Hwang, Gwo-Haur. (2008) Diagnosing student learning problems based on historical assessment records. *Innovations in Education and Teaching International*, 45(1), 77-89.

Saravani, Sarah-Jane (2012) *Identifying learner support needs through the use of a digital and information literacy self-assessment framework*. In: ALT-C 2012: A Confrontation with Reality, 11-13 September, 2012, Manchester, England.