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The relationship between multimedia assessment and deep/surface learning:

Change or No Change? Lessons learnt in the TAFE classroom

Research Setting



What am I interested in?

- VET learners – TAFE – who are they and how do they approach their learning
- Encouraging students to be reflective, inquisitive learners – deep learners



As a guide for me

- Investigated learning styles, preferences and strategies
- Sadler-Smith & Smith (2004) discuss the three as: styles – the intrinsic, habitual way a learner acquires information; preference, as the learner's bias towards a distinct T&L method; learning strategy as the particular method or approach that the learner adopts in negotiating a learning activity or process

So many to choose from?

- Coffield, Moseley, Hall & Ecclestone (2004) distinguish between over 70 learning styles, within 5 main families
- Which one resonates with me?
- Deep/surface approach
- Influenced by the work of Biggs (1987, 1989), Biggs, Kember & Leung, (2001), Marton and Saljo (1976), Ramsden (2003), Ramsden & Entwistle (1981, 1983)

My approach then...

- Encourage learners to move (if possible) from one learning style to another – possible?
- Encourage learners to try and adopt learning characteristics that reflect a **deep approach**
- Via MM?

Definition of deep and surface learning given to the interviewees

Deep Learner:

- A learner that needs to delve into the subject matter presented to them and not just skim over the topic. It is important that the learner asks 'why' not just 'how'
- A deep learner is someone who is motivated to thoroughly research the task in order to satisfy their own levels of curiosity and interest
- A deep learner is someone who understands that knowledge acquisition takes time and effort – but the rewards are justified
- A deep learner is confident and informed because they have spent the time and attention on the task or topic. This feeling gives them not only a sense of clarity but also empowerment
- Deep learners try to spend as much time as they can on tasks or topics even those that are not assessable

Based on work done by Biggs (1987, 1989), Biggs, Kember & Leung, (2001), Marton and Saljo (1976), Ramsden (2003), Ramsden & Entwistle (1981, 1983)

Surface Learner:

- A learner that is comfortable doing just enough to complete the topic or task
- A surface learner prefers not to spend too much time or effort on a task
- A surface learner is someone who is satisfied in having a general or superficial understanding of a topic or task
- Surface learners can learn by trying to memorize information and then regurgitate this information at a later time in order to pass the assessment or task. They sometimes are comfortable with rote learning, as this method assists them in reinforcing information
- Surface learners view information gathering as more valuable than developing understanding through acquiring knowledge based on research and in-depth study
- Surface learners tend to spend a greater amount of time only on those topics or tasks that they enjoy or which are assessable

Using what as a vehicle to analyse my learners?

- The role of technology in education – the use of technology as an assessment task – can it aid my learners to be not only active learners but also reflective?
- Therefore...

Test the Assertion that...

- MM activities, tasks and assessment can assist learners in adopting a 'deeper, reflective, critically richer, and more meaningful context' – than traditional methods???

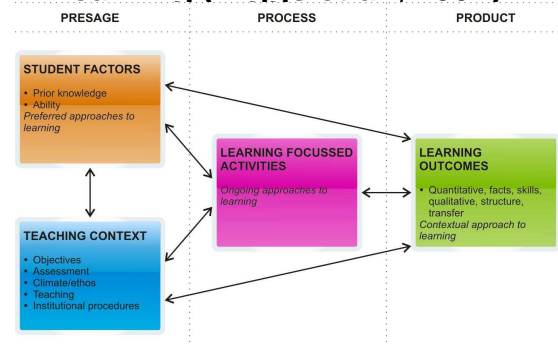
Purpose of the research

- Examine the type of learning engagement of diploma of event students
- Investigate whether non-traditional teaching methods and tools may stimulate and motivate learners (Barrett, 2004, 2005, 2006; Miller, 2004; Ohler, 2006; Prensky, 1998; Robin, 2006; Zubizarreta, 2004)
- Explore whether students use a deep or surface approach to a MM assessment task
- Reflect on the outcomes of the research for practitioners, students and industry employers

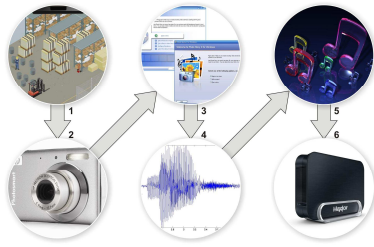
My participants



Biggs Model – Deep and Surface Learning (Biggs et al., 2001)



Digital Multimedia Assessment Task



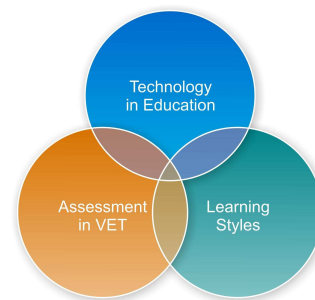
Step 1 Assessment Criteria – OH&S Training DAV for the workplace
 Step 2 Take digital photos of the workplace
 Step 3 Upload them into Microsoft Photostory
 Step 4 Add your voice via a written script based on your investigation of the workplace
 Step 5 Add background music
 Step 6 Save your file to a USB or CD

- In some ways, this assessment task has elements consistent with other work done
- Such as...

Ohler's representation of Digital MM (2009)



Three Research Areas – Literature Review



Literature Review

- The literature is weak regarding technology on VET (compared with K1-12, Higher Education)
- Some work has been done on assessment in VET and learning styles

Research Methodology

- **Qualitative**
- **13 interviews (11 female, 2 male event diploma students)**
- **Quantitative**
- **13 questionnaires using the Biggs R-SPQ-2F (Biggs, Kember & Leung, 2001)**
- What did the participants say? Snapshots

Deep Approach

- I am a deep rather than surface learner – I need to know why ... It certainly is important to try and learn and understand things by going deeper into the problem or question to be answered. (Amanda)
- My approach to this assessment was the same for most of my work – do the background work, find the information and make sure that I had questions to ask if I couldn't find the answer myself. I like being prepared and confident so that I can enjoy it rather than stressing and worrying. (Lisa)
- Even though I had some issues I didn't give up. I am a patient person who likes to get the work done. That way my work is better and more professional, rather than rushing and trying to get it over and done with. (Sari)

Deep Approach

- I prefer to work through problems, rather than just getting the teacher to fix my problems for me. You don't learn that way. (Ruth)
- Yes, I am a deep learner – I need to know why. (Stephanie)
- I am not good at rote learning –I am probably a deep learner. (Fiona)
- I have to know why. The more I can find out about my study the happier and more confident I feel. (Jess)

Mid-way

- I'm somewhere in the middle. I think I am a bit of both – deep and surface, depending on the task and if I am interested in the topic. If I don't like the topic then I think I would use a surface approach. But for hands on subjects I think I use a deep approach, and for theory subjects I used a surface approach and I would do the minimal work done. (Lanie)

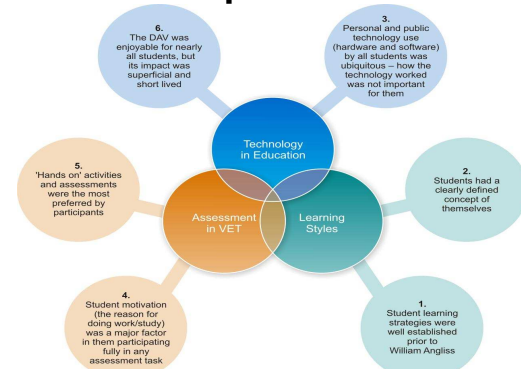
Surface Approach

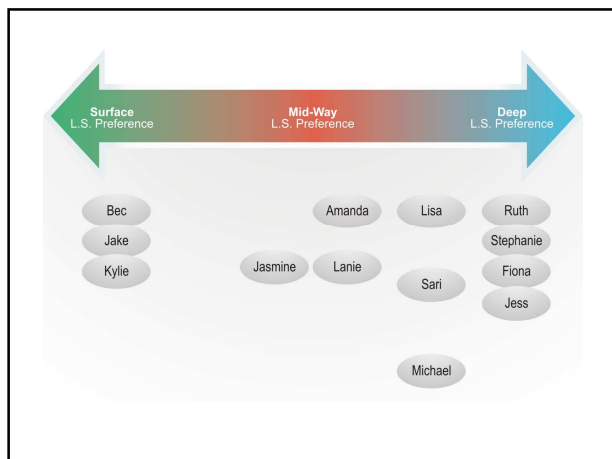
- Most of the time though I am happy just to do enough to get by with – it's no real big deal. (Jasmine)
- I think I am a surface learner. I really only do enough work to get the assessment done so that I can hand it in. (Bec)
- I tend to skim over things instead of spending more time and effort. It's part of how I learn and get through the work. (Kylie)
- I always look at how much the work is worth which helps me to decide how much work to put in. (Jake)

Participant Findings

Participant	Participant Personal Belief	Blogs Questionnaire	Digital Audio Video
Ruth	Deep	Deep	Deep
Stephanie	Deep	Deep	Deep
Fiona	Deep	Deep	Deep
Jess	Deep	Deep	Deep
Bec	Surface	Surface	Surface
Jake	Surface	Surface	Surface
Kylie	Surface	Surface	Surface
Amanda	Deep	Deep & Surface	Deep
Lanie	Deep & Surface	Deep & Surface	Deep
Lisa	Deep & Surface	Deep	Deep
Sari	Deep & Surface	Deep	Deep
Jasmine	Surface	Deep & Surface	Surface
Michael	Deep	Surface	Deep

Participant Themes





Dissonance (Case & Marshall, 2009; Entwistle, 1981) – how to respond?

- Michael's apparent dissonance between the predicted surface (Biggs et. al. 2001) and his self-describe deep learning behaviours could be an indication of the fluidity of learning preferences
- Suggests that learners adopt a **strategic approach** when negotiating their learning

Deep or Surface Outcome?

- Neither – it didn't inhibit an already existing learning style
- Interplay between the three main themes:
- Learning styles, assessment in VET & technology in education
- AND
- The six sub-themes
- So what?
- Proposed model to assist colleagues and teaching practitioners

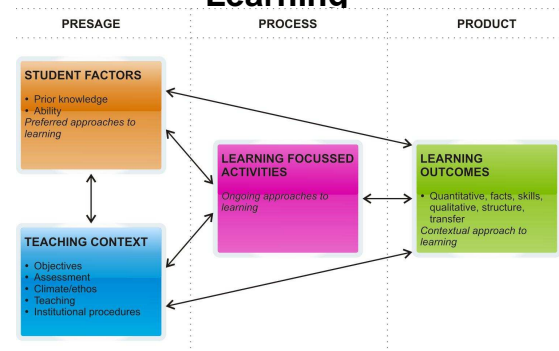
Deep or Surface Outcome?

- The results do not provide adequate evidence to support the proposition that MM assessment promotes deep learning
- MM assessment enabled the adoption of both deep and surface learning approaches as determined by the learner

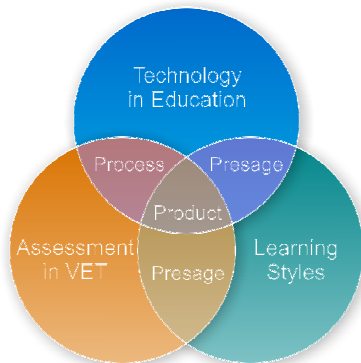
How best to use these findings?

- Small in scope
- Propose a model that may assist in approaching similar teaching and learning situations (integrate Biggs' work)

Biggs Model – Deep and Surface Learning



Research Outcomes Model



This has led to...

- Currently piloting a research project based on MM assessment using Flip digital video cameras
- Over 100 degree students involved in using MM within an assessment task
- Tracking learner involvement, motivation and learning approach
- The project has had to meet T&L Outcomes

Flip Digital Camera



Thank you

