

The Light at the End of the Tunnel: Threshold Concepts in Early Online Adult Education

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Figure 1: Machtemes, nd.

1) Introduction

The aim of this study is to explore potential threshold concepts faced by new Adult Level 100 online students studying the Bachelor of Business in Australia. It seeks to better understand the ontological and conceptual shifts experienced by these students, the troublesome knowledge inherent to this learning space, and how educational program developers and lecturers might identify and work with these threshold concepts in both retention policy and curriculum development.

2) Problem Statement:

Over the last two decades many adults have registered as Level 100 online students in higher education. The term 'online study' refers in this case to any of a spectrum of online deliveries. It has been generally accepted that during the past twenty years developing computer technologies have offered many opportunities and online learning is now an integral part of higher education for many adult learners.

There is considerable literature available exploring students' perceptions of online learning and online learning environments (Coldwell, Craig, & Goold, 2006; Salmon, 2011; Goold & Coldwell, 2005; Smith, Coldwell, Smith, & Murphy, 2005; Herrington & Oliver, 2002). However current research literature into threshold concepts faced by these students appears to be lacking. Further

research is needed into the "...relation between the individuals and the phenomenon" (Bowden, 2000, p. 19). Expressly, an empirical study of the different ways in which new Level 100 adult learners *experience* different phenomena involved in their online study, incorporating co-exploration and dialogue between stakeholders, seems called for (Flick, 2006; Erickson, 1986; Marton & Booth, 1997). This would include exploring the circumstances in which they feel secure or otherwise – a fragility Barnett terms "supercomplexity" (2000, p. 257) and which links to the liminal state (Meyer and Land, 2003, 2005, 2006) - and the ways in which they feed this experience back to their educators.

2. 1 Adult learners

Adult learners are typically between 25 to 50+ years of age, often highly motivated with specific reasons for studying online, and bringing broad experience to their study. Adult Learning is about changes in attitude; behaviour; knowledge and understanding; technical, cognitive and social skills; and subjective and objective thinking (Baxter, 2012; Ormrod, 2011).

Knowles suggested that the point at which one becomes psychologically an adult, "*...is that point at which he perceives himself to be wholly self-directing. And at that point he also experiences a deep need to be perceived by others as being self-directing*" (1984, p. 56). Some social cognition (Salmon, 2013) obviously takes place with my early adult 'onliners' but many are definitely not self-directed. Indeed debate exists regarding the extent to which early adult online students actually change their cognitive view and interact differently with their environment. (Brown & Schrader, 2009; Brinkworth, McCann, Matthews & Nordstrom, 2009; Gosper, Malfroy, McKenzie, 2013; Kidwell & Reising, 2005; Pitkethly & Prosser, 2001).

Rogers notes that "In all of us there is some fear of process, of change.... Change is painful and uncertain (1980, p. 354)." To 'be' a new adult online student can be problematic, troubling, humbling. It can involve mimicking others while pretending to know what is required. So often not understanding the meaning of what they are doing, adult online learners are sometimes unable to tolerate the uncertainty they experience. Their resilience is incremental and fragile, particularly at times of difficulty (Nichols, 2010), not only in an academic sense, but also as their identity as independent learners develops (Baxter, 2012; Ormrod, 2011).

Collaborative online learning methods can encourage dialogue, result in deeper understanding at higher levels and have the potential to enhance student learning outcomes (Hrastinski & Aghaee, 2012; Motteram & Forrester, 2005). Studies indicate however, that level 100 adult online students often tend to work individually, eschewing collaborative learning and relying on existing skills rather than actively participating in their learning process through the use of new resources (Salmon, 2011; Brown & Schrader, 2009; Osmond & Turner, 2010; Hays, 2008). Despite the levels of computer integration into everyday life, adult students can be ill equipped technologically and emotionally for online study and its academic and time management demands. Salmon likens this online learning experience to swimming, waving or drowning (Salmon, 2005, 2011, 2013; Osmond & Turner, 2010; Hays, 2008). Early online learning is therefore often typified as shallow, with low participation levels and high attrition rates (Salmon, 2011; Gulati, 2004; Ravenscroft, 2004; Kapitzke, 2000; Thomas, 2002).

2. 2 Unique Challenges Faced

Today's Web 2 online learner faces unique challenges in building relationships with others on a scale not seen before. Access to endless sources of information online and an unprecedented rate of technological development have resulted in new social balances involving collaboration and development of knowledge outside the formal education environment. Circumstances involving financial considerations, isolation, and even unprecedented opportunity, can disrupt the learning

process. Experience of the dehumanisation often apparent in the online learning environment, and perceptions of themselves as learners challenge the adult online learner who may have been away from formal learning for some time (Siemens 2005, 2008).

3) So...Is online learning a 'discipline' which ticks the Threshold Concept profile boxes?

✓ Transformative	Can change understanding, or interpreting of concepts and procedures completely
✓ Irreversible	once understood, online learning procedures are impossible to "unlearn"
✓ Integrative	can expose connections and make sense of formerly unrelated subjects
✓ Discursive	new language invades everyday existence with ever-evolving terminology
✓ Involves liminality	disorientation and vacillation between established and emergent understanding is common
✓ Troublesome	can appear to be alien, incoherent or counter-intuitive
✓ Re-constitutive	can help subjectify personal learning experience and identity

But is learning to be an 'online learner' bounded like engineering or medicine?

✓ Bounded	<p>Suggestion 1): Online learning communities are 'bounded' learning communities created expressly for the completion of online, blended or distance learning courses existing in direct response to course requirements for the duration of the course. (Wilson, Ludwig-Hardman, Thornam and Dunlap, 2004).</p> <p>Suggestion 2): "There is no one in education untouched by online learning... We are a digital citizenry" (Morris & Stommel, 2013, p1).</p>
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So yes, I believe that online learning is a discipline in itself.

4) The Online Liminal Space and Troublesome Knowledge

Online, the liminal space can be ongoing with openings onto many portals, each of which may represent a separate or even intersecting subject, context or discipline. The transition to understanding from this liminal state involves coping with specific troublesome knowledge with emphases on identity disturbance and formation as much as cognition (Perkins, 2006). Such troublesome knowledge can include distinctive ways of thinking and practising; distinctive language and forms of online communication; technology concerns; an increasingly complex set of digital concepts; perceptions of the learning task; and perceptions of the online learning environment (Ellis & Goodyear, 2010; Jones & Czerniewicz, 2010).

5) Threshold Concept Theory and online curriculum design

Online Curriculum design based on Threshold Concept Theory could enable students to 1) develop awareness of different aspects of online concepts and procedures and the relationship between these aspects; 2) adopt self-directed thinking about the online space; then 3) apply their understanding through application to different contexts. These contexts could include generic application, and application in professional and particular disciplinary settings.

6) My Research Project

6.1 Aim:

To better understand the ontological and conceptual shifts experienced by adult students studying their first quota of subjects online in the Bachelor of Business, by examining the threshold concepts inherent to the early online learning space.

6.2 Main Research Question:

What are the threshold concepts involved in being a new online adult student and what ontological and conceptual shifts are experienced by these students?

6.3 Methodology

A mixed method research approach:

- 1) quantitative multiple-choice survey
- 2) qualitative open-ended semi-structured interviews
- 3) qualitative online blogs

(Åkerlind, 2005; Johnson & Christensen, 2004; Rummel, 2008).

6.4 Survey Topics:

skill levels and availability of technology
location of the participant
time management practices
response time
attitudes to group work
attitudes to levels of required reading,
attitudes to the medium
perceived levels of learning success (Ellis & Goodyear, 2010).

This study will also borrow from 'Transactional Curriculum Inquiry' bringing adult online learners and teachers together to explore the threshold concepts the learners confront; associated ontological issues and cognitive issues: variation in the 'episteme', their apprehension, their provisional understanding, their transformation, and their sense of 'self'; and pedagogic strategies which may be employed to enhance student learning outcomes (Cousin, 2006; 2010).

7) Conclusion: Significance of the Study

Threshold Concepts research is said to facilitate the examination of student learning, the identification of key knowledge areas and their subsequent application to future curriculum development (Land, 2011). Therefore conducting a "...collective analysis of individual experiences..." (Åkerlind, 2005, p321), of threshold concepts from the perspective of the participants could result in transformed understanding about relevant troublesome knowledge (Hays, 2008). The study may also help to improve online educational practice and policy regarding useful ways of utilising troublesome knowledge within the curriculum; make the new online learning experience

less fraught; contribute to lower attrition rates; and improve understanding of the types of learning support these students need (Carmichael, 2012).

References

- Akerlind, G. S., 2005. Variation and commonality in phenomenographic research methods. *Higher Education Research & Development*, 24(4), 321-334.
- Barnett, R., 2000. Supercomplexity and the curriculum. *Studies in Higher Education*, 25(3), pp255-265.
- Baxter, J., 2012. Who am I and what keeps me going? Profiling the distance learning student in higher education. *International Review of Research in Open and Distance Learning*, 13(4), 107-129. Available: <http://www.editlib.org.ezproxy.uow.edu.au/p/49311/> Accessed: August 17, 2013
- Bowden, J., 2000. Chapter 1: The nature of phenomenographic research. In J. A. Bowden & E. Walsh (Eds.), *Phenomenography* (pp. 17-33). Melbourne, Australia: RMIT University Press.
- Brinkworth, R., McCann, B., Matthews, C. & Nordstrom, K., 2009. First year expectations and experiences: student and teacher perspectives. *Higher Education*, 58(2), pp. 157-173.
- Brown, S. W. & Schrader, P. G., 2008. Evaluating the first year experience: students' knowledge, attitudes, behaviours. *Journal of Advanced Academics*, 19(2), pp. 310-343.
- Carmichael, P., 2012. *From this Curriculum to That which is to Come: Threshold Concepts, Complexity and Change*. Keynote Presentation, Fourth Biennial Conference on Threshold Concepts: From personal practice to communities of practice, Trinity College, Dublin, 28-29 June 2012. Available as On-line video recording: <http://www.nairtl.ie/index.php?pageID=627&PHPSESSID=3977846af865678a7fa99cd4598810be> Book of Conference Abstracts: pp14-15 Accessed 2 February 2013.
- Cousin, G., 2006, in J.H.F. Meyer & R. Land, (Eds.), *Overcoming Barriers to Student Understanding: threshold concepts and troublesome knowledge*, London and New York: Routledge.
- Cousin, G., 2010. *Neither teacher-centred nor student-centred: threshold concepts and research partnerships*. *Journal of Learning Development in Higher Education*, 2. Available: [http://www.aldinhe.ac.uk/ojs/index.php?journal=jldhe&page=article&op=viewFile&path\[\]=64&path\[\]=41](http://www.aldinhe.ac.uk/ojs/index.php?journal=jldhe&page=article&op=viewFile&path[]=64&path[]=41). Accessed April 14, 2013
- Ellis, R., & Goodyear, P., 2010. *Students' experiences of e-learning in higher education*. New York: Routledge.
- Erickson, F., 1986. *Qualitative methods in research on teaching*. In M. C. Wittrock (Ed.), *The Handbook of research on teaching*. New York: MacMillan.
- Flick, U., 2006. *An introduction to qualitative research* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Goold, A. & Coldwell, J., 2005. Teaching ethics in a virtual classroom. *ITiCSE '05*, Monte de Caparica, Portugal, ACM.
- Gosper, M., Malfroy, J., McKenzie, J., (2013). Students' experiences and expectations of technologies: An Australian study designed to inform planning and development decisions, *Australasian Journal of Educational Technology*, 2013, 29(2)pp. 268-282. Available: <http://www.editlib.org.ezproxy.uow.edu.au/p/112351/> Accessed: August 3, 2013
- Gulati, S. 2004. Constructivism in Online Pedagogy and Informal Learning: a discussion for formal to acknowledge the informal. Paper presented at University of Glamorgan, Wales. 6th April 2004, Available: <http://www.leeds.ac.uk/educol/documents/00003562.htm> Accessed: April 1, 2013
- Hayes, J.M., 2008. Threshold & Transformation, *European Journal of Management*. Vol 8 (3) pp 24-46
- Herrington, J. & Oliver, R., 2002. *Identification of generic ICT based software tools. Report produced as a research task for the AUTC Project: Information and Communication Technologies and Their Role in Flexible Learning*.

- Hrastinski, S., & Aghaee, N. M. (2012). How are campus students using social media to support their studies? An explorative interview study. *Education and Information Technologies*, 17(4), 451-464.
- Johnson, B. & Christensen, L., 2004. *Educational Research: Quantitative, Qualitative, and Mixed Approaches, Research Edition*, Edition Boston: Pearson Education Inc.
- Jones, C., & Czerniewicz, L., 2010. Describing or debunking? The net generation and digital natives. Available: www.cet.uct.ac.za/files/file/2010/j_1365-2729_2010_00379_x.pdf Accessed 23 January 2013
- Kapitzke, C., 2000. Cyber Pedagogy as Critical Social Practice in a Teacher Education Program. *Teaching Education*, 11(2), pp. 211 - 229.
- Kidwell, K. S. & Reising, B., 2005. Understanding the college first-year experience. *Clearing House*, July/August, 78(6), pp. 253-255.
- Knowles, M. S. (1984). *Andragogy in Action. Applying modern principles of adult education*. San Francisco: Jossey Bass.
- Land, R., Meyer, J. & Smith, J., 2008. Editor's Preface. In R. Land, J. Meyer, and J. Smith (Eds.) *Threshold Concepts within the Disciplines*. Rotterdam: Sense Publishers.
- Machtemes, nd. Available: www.toddstewartphotography.net. Accessed February 18, 2013.
- Marton, F. & Booth, S., 1997. *Learning and Awareness*. New Jersey, Lawrence Erlbaum Associates.
- Meyer J. & Land, R., 2011. There could be Trouble Ahead: Using Threshold Concepts as a Tool of Analysis. *International Journal for Academic Development* 16(2) pp.175-178.
- Morris, S. M. & Stommel, J., 2013. Why Online Programs Fail and 5 Things We Can Do About It. Hybrid Pedagogy – A journal of learning, teaching and technology. Available: www.hybridpedagogy.com/journal. Accessed January 8, 2014.
- Motteram, G., & Forrester, G. (2005). Becoming an online distance learner: what can be learned from students' experiences of induction to distance programmes? *Distance Education*, 26(3), pp. 281–298.
- Nichols, M. (2010). Student perceptions of support services and the influence of targeted interventions on retention in distance education. *Distance Education*, 31(1), 93-113. doi:10.1080/01587911003725048.
- Ormrod, J.E. (2011). Social cognitive views of learning. In Smith, P.A. *Educational psychology: developing learners* (pp.352-354). Boston, MA: Pearson Education, Inc
- Osmond, J., and Turner, A. (2010) 'The Threshold Concept Journey: from identification to application'. In *Threshold Concepts and Transformational Learning*. Ed. by Meyer, J.H.F., Land, R., and Baillie, C. Rotterdam: Sense Publishers.
- Perkins, D. (2006) Constructivism and troublesome knowledge, in E. Meyer and R. Land (Eds) *Threshold Concepts and Troublesome Knowledge, London and New York: Routledge*, 33-47.
- Pitkethly, A. & Prosser, M., 2001. The first year experience project: a model for university-wide change. *Higher Education Research & Development*, 20(2), pp. 185-198.
- Ravenscroft A. (2004) Towards highly communicative eLearning communities: developing a socio-cultural frame-work for cognitive change. In: *Cyberspace Education*. R. Land & S. Bayne (Eds), pp. 130–145. Oxford: Routledge
- Rogers, C. (1980) *A Way of Being*. Boston: Houghton Mifflin
- Rummel, E., 2008. Constructing cognition. *American Scientist*, 96(1), pp.80-82.
- Salmon, G., 2005. Flying not flapping: A strategic framework for e-learning and pedagogical innovation in higher education institutions. *Alt-J, Research in Learning Technologies*, 13(3), 201-218.
- Salmon, G. (2011). *E-moderating: The key to teaching and learning online* (3rd ed.). New York: Routledge.
- Salmon, G. (2013). *E-tivities: The key to active online learning* (2nd ed.). London and New York: Routledge.
- Siemens G., (2005) [Connectivism: A learning theory for the digital age](http://www.ijerl.com). *International Journal of Instructional Technology and Distance Learning* 2(1), pp. 3-10

- Siemens G., (2008) [Connectivism: A learning theory for the digital age](http://www.itdl.org/Journal/Jan_05/article01.htm) URL:([http://www. itdl. org/Journal/Jan_05/article01. htm](http://www.itdl.org/Journal/Jan_05/article01.htm)), Accessed August, 2013
- Smith, P., Coldwell, J., Smith, S. N., & Murphy, K., 2005. Learning through computer-communicated communication: A comparison of Australian and Chinese heritage students. *Innovations in Education and Teaching International*, 42 (2), 123-134.
- Thomas, M. J. W., 2002. Learning within incoherent structures: the space of online discussion forums. *Journal of Computer Assisted Learning*,18, pp.351 - 366.
- Wilson, B., Ludwig-Hardman, S., Thornam, C., & Dunlap, J. (2004). Bounded Community: Designing and Facilitating Learning Communities in Formal Courses. *The International Review Of Research In Open And Distance Learning*, 5(3). Available: <http://www.irrodl.org/index.php/irrodl/article/view/204/286> Accessed: 25 April 2013