

Completing the cycle: Dissemination of educational research as a Threshold Concept in Pharmaceutical Sciences

Simon P. Albon & Andrea S. Webb

University of British Columbia

simon.albon@ubc.ca

andrea.webb@ubc.ca

CPERC, Vancouver, June 2, 2016

Outline of the session

- What were we interested in?
- What are threshold concepts?
- How did we uncover threshold concepts in Pharmacy education research?
- What does this mean for Pharmacy education research at UBC and beyond?

2

Context

- **UBC Faculty of Pharmaceutical Sciences**
 - opened in 1946
 - offers undergraduate (BSc(Pharm) and PharmD degrees) and graduate (MSc and PhD) training
 - has ~ 70 faculty and 1000 students
 - has undergone enormous change in the past 5 years
 - the time was right for investigating our practices
- **The Office of Educational Support and Development (OESD)**
 - formalized in January 2013
 - comprises a staff of 4
 - provides strategic support in the areas of curriculum and pedagogical practices, faculty development, program assessment and evaluation, and scholarship of teaching and learning

3

What are threshold concepts?



4

Threshold Concepts

"The portals to understanding a discipline or field"

(Meyer & Land, 2003)

- A concept is considered threshold if it leads to a qualitatively different view of the subject matter, often challenging existing knowledge

5

Characteristics of Threshold Concepts

Troublesome
Transformative
Irreversible
Integrative
Bounded
Reconstitutive
Discursive
Liminal

*Examples of the threshold concept **must** be transformative and involve movement in a liminal space. They are **likely** to be characterised by many, but not necessarily all, of the other features.*

6

Characteristics of threshold concepts in SoTL

Four key characteristics were highlighted in Andrea's study:

- Troublesome
- Liminal
 - Reconstitution, Integrative
- Transformative
 - Discursive, Irreversible
- Bounded

7

How did we uncover threshold concepts in Pharmacy education research?



8

Methodology, Methods, and Analysis

- Phenomenological Inquiry
- Purposive sampling leading to a representative sample
- Data sources
 - Semi-structured interviews (26 interviews)
 - Researcher Journal
- Qualitative data analysis
 - Transcription and thematic coding based on the TC characteristics

(Boyatzis, 1998; Braun & Clarke, 2006; Glaser & Strauss, 1967; van Manen, 2010)

9

Two Major Findings

Existence of two solitudes:

- Distinctly different understanding of SoTL between research track and teaching track faculty
- Teaching and learning work not considered scholarship
- Few used the language of SoTL
- Research track faculty equated SoTL with good to excellent teaching



(Albon, 2014)

10

Two Major Findings

One Threshold Concept:

- Lack of confidence in completing the cycle of research related to:
 - Basics of research design and methodology
 - Conventions and language
 - Understanding the literature
 - Places to disseminate, particularly peer reviewed publications
 - Mentorship and support



11

Implications for Pharmacy education research

Faculty development needs:

- Building knowledge
 - Ongoing knowledge development and accountability
- Building confidence
 - Leveraging knowledge from different disciplines
 - Collective responsibility
- Specific activities related to faculty development (Building networks and communities of practice, mentorship opportunities, basics of research design and methodology, recognition for work, internal support)



12

References and Resources

- Barradell, S. (2013). *The identification of threshold concepts: a review of theoretical complexities and methodological challenges*. *High Education*, 65(1), 265-276. doi 10.1007/s10734-012-9542-3
- Cousin, G. (2006). An introduction to threshold concepts. *Planet*, 17, 4-5.
- Davies, P. & Mangan, J. (2005 August) Recognising threshold concepts: An exploration of different approaches. Paper presented at the European Association in Learning and Instruction (EARLI) Conference, Nicosia, Cyprus.
- Entwistle, N. (2008). Threshold concepts and transformative ways of thinking within research into higher education. In R. Land, J.H.F. Meyer, & J. Smith. (Eds.), *Threshold concepts within the disciplines* (pp. 21–35). Rotterdam, The Netherlands: Sense Publishers
- M. Flanagan. Threshold Concepts: Undergraduate Teaching, Postgraduate Training and Professional Development. A short introduction and bibliography. Available online <http://www.eeuc.ac.uk/~mflanaga/thresholds.html>
- Holloway, M., Alpay, E., & Bull, A. (2009). A quantitative approach to identifying threshold concepts in engineering education. Retrieved on April 1, 2013 from http://www.enesc.ac.uk/downloads/scholarart/ee2010/101_GP_Holloway.pdf
- Land, R. (2012, June). A closer look at liminality: In corrigibles and teaching capital. Paper presented at NAIRT Conference, Trinity College Dublin. Retrieved on July 10, 2013 from www.nairt.ie/index.php?pageID=627
- Meyer, J.H.F. & Land, R. (2003). *Threshold concepts and troublesome knowledge: linkages to ways of thinking and practising*. In Rust, C. (ed.), *Improving Student Learning- Theory and Practice Ten Years On*. Oxford: Oxford Centre for Staff and Learning Development, 412-424.

13