



# What is research?

Margaret Kiley

[Margaret.kiley@anu.edu.au](mailto:Margaret.kiley@anu.edu.au)

15<sup>th</sup> Biennial EARLI conference

Munich, Germany 27-31 August 2013



# Aims

- To gain a deeper insight into:
  - how doctoral candidates understand the concept of “research”
  - the extent to which candidates found it helpful to discuss issues related to research in small, collegial working groups



## Threshold Concepts of research

- Kiley (2008, 2009) identified six possible threshold concepts from supervisor interviews:
  - argument/thesis
  - theory
  - framework
  - knowledge creation
  - analysis, and
  - research



## Concepts of research (cont)

- Meyer, Shanahan et al (2005, 2007) reported students' conceptions of "research" as:
  - finding out the truth AU3
  - an insightful process
  - re-searching previous knowledge
  - problem solving
- Additionally there were misconceptions... AU4

## Slide 4

---

**AU2**      **Add full stop**  
Karen Bell, 8/08/2013

**AU3**      **add ;**  
Karen Bell, 8/08/2013

**AU4**      **add .**  
Karen Bell, 8/08/2013



## Misconceptions: research is...

- gathering data that support preconceived ideas
- correctly followed procedures yield positive results <sup>AU5</sup>
- when qualified people do research results are unbiased <sup>AU6</sup>
- it is acceptable to modify research data if it does not look exactly right <sup>AU7</sup>
- research becomes true after it is published
- if research is properly conducted then contradictory findings will never occur, and <sup>AU8</sup>
- generally only one way to interpret research findings

## Slide 5

---

**AU5** Maybe  
Supervisors from six universities were interview  
Karen Bell, 8/08/2013

**AU6** Delete .  
add ;  
Karen Bell, 8/08/2013

**AU7** add ;  
Karen Bell, 8/08/2013

**AU8** add .  
Karen Bell, 8/08/2013



## Conceptions of research (Brew, 2001) <sup>AU9</sup>

- Research conceptualised by experienced researchers as: <sup>AU10</sup>

- domino

- trading <sup>AU11</sup>

- layer, and

- journey <sup>AU12</sup>



## Slide 6

---

**AU9** Difficulties candidates experienced with theory?

Karen Bell, 8/08/2013

**AU10** add ;

Karen Bell, 8/08/2013

**AU11** add ;

Karen Bell, 8/08/2013

**AU12** add .

Karen Bell, 8/08/2013



# Methodology

- Ten doctoral candidates regular monthly meetings (two groups x five) AU13
- Groups established over 12 months earlier AU14
- Threshold Concepts paper (Kiley, 2009) given to all participants in advance AU15
- Data were collected through participant-observation over three months i.e. three meetings per group

## Slide 7

---

**AU13**     **add ;**  
Karen Bell, 8/08/2013

**AU14**     **add ;**  
Karen Bell, 8/08/2013

**AU15**     **add .**  
Karen Bell, 8/08/2013

**1**             Margaret Kiley, 12/08/2013



# Participant details

	<sup>AU16</sup> <b>Female</b>	<b>Male</b>	<b>Summary</b>
Number	5	<sup>AU17</sup> 5	<sup>AU19</sup> 10
Average age	48 years	60 years	<sup>AU18</sup> <sup>AU20</sup> Overall average age 54

## Slide 8

---

**AU16**     **add ;**  
Karen Bell, 8/08/2013

**AU17**     **add ;**  
Karen Bell, 8/08/2013

**AU18**     **add .**  
  
Karen Bell, 8/08/2013

**AU19**     **delete space**  
Karen Bell, 8/08/2013

**AU20**     **maybe have it read**

**examples of theory, or material that leads to questions about theorising.**  
Karen Bell, 8/08/2013



## Research as an iterative process (1)

- “The examples of threshold concepts at the doctoral level resonate <sup>AU21</sup> with me. Also the idea of oscillation – of movement around <sup>AU23</sup> concepts, thinking away from a position then back to that (or a similar) position is credible. I find that the same key ideas I was working on two years back <sup>AU24</sup> are still in the foreground – notwithstanding an elaborate <sup>AU25</sup> dance around these, and my research question”. (3) <sup>AU26</sup>

## Slide 9

---

- AU21**     **add ;**  
Karen Bell, 8/08/2013
- AU22**     **add ;**  
Karen Bell, 8/08/2013
- AU23**     **suggests (add s)**  
Karen Bell, 8/08/2013
- AU24**     **add ,**  
Karen Bell, 8/08/2013
- AU25**     **is what**  
Karen Bell, 8/08/2013
- AU26**     **add .**  
Karen Bell, 8/08/2013



## Research as an iterative process (2)

- I've revised Chapter 2 [literature review] as a result of working on Chapter 6 [findings] and now chapter 7 [discussion] needs revision following work on the literature review (General comment)





## Unlearning previous ways of thinking about research (1)

- “That was one of my threshold concepts where I realized I had to look at what my data said, not what I thought” (7)
- [on reflection it became clear originally enrolled in a doctoral program as a means of proving existing strongly held views about the topic, with the AU27 legitimisation of “Dr”]

AU27

don't understand with comment

Karen Bell, 8/08/2013



## Unlearning previous ways of thinking about research (2)

- “Unlearning” their consultant’s approach to a topic and learning a research approach
- “Actually I am thinking I would like to do more work with industry. I think I am too applied for academia. I think I can do more within industry, in professional development for example’ (8)



## Ways of addressing misconceptions (1)

- ‘Research is about gathering data that support preconceived ideas or that will back a particular argument’ (Meyer et al 2005, p. 236).
- Candidates 3 and 8, the mature-age consultants, might have perhaps given a survey response that would suggest their conception of research was about gathering data to support an existing position



## Ways of addressing conceptions (2)

- ‘...there is generally only one way to interpret research findings’ (Meyer et al 2005, p. 236)
- Candidate 6 who realised that he needed to look at his data and not simply report what he thought, might reflect the misconception ‘...there is generally only one way to interpret research findings’



## Group discussion

- Reflection and discussion with candidates at different stages of candidature indicated that more experienced candidates can assist their less experienced peers and less experienced to learn from others
- Suggest that In-depth, regular group discussions might be one effective way of addressing doctoral candidates' misconceptions of research



# References

Brew, Angela. (2001). Conceptions of Research: A phenomenographic study. *Studies in Higher Education*, 26(3), 271-285.

Kiley, Margaret. (2008). Addressing the concepts that challenge doctoral candidates. *AERA Annual Meeting*, New York City, New York.

Kiley, Margaret. (2009). "Identifying threshold concepts and proposing strategies to support doctoral candidates." *Innovations in Education and Teaching International* 46 (3): 293-304.

Kiley, Margaret. (2009). Isn't research just research? What are candidates and supervisors thinking? In A. Brew & L. Lucas (Eds.), *Academic research: Policy and practice* (pp. 161-174). Berks: SRHE:OUP.

Kiley, Margaret, & Wisker, Gina. (2010). Learning to be a researcher: The Concepts and Crossings. In J. H. F. Meyer, R. Land & C. Baillie (Eds.), *Threshold Concepts and Transformational Learning* (pp. 399-414). Rotterdam: Sense.

Meyer, J.H.F., Shanahan, Martin, & Laugksch, Rudiger. (2005). Students' conceptions of research: I: A qualitative and quantitative analysis. *Scandinavian Journal of Educational Research*, 49(3), 225-244.

Meyer, J.H.F., Shanahan, Martin, & Laugksch, Rudiger. (2007). Students' conceptions of research 2: An exploration of contrasting patterns of variation. *Scandinavian Journal of Educational Research*, 51(4), 415-433.