

### What is research?

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### 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

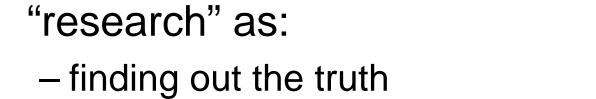


### Concepts of research (cont)

- Meyer, Shanahan et al (2005, 2007) reported students' conceptions O "research" as:

  - an insightful process
  - re-searching previous knowledge
  - problem solving
- Additionally there were misconceptions...

AU3



Slide 4				
AU2	Add full stop Karen Bell, 8/08/2013			
AU3	add; Karen Bell, 8/08/2013			
AU4	<b>add</b> . Karen Bell, 8/08/2013			



### Misconceptions: research is...

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

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)

- Research conceptualised by experienced researchers as:
  - domino
  - trading
  - -layer, and
  - journey

AU11

AU12

# Slide 6 AU9 Difficulties candidates experienced with theory?<br/>Karen Bell, 8/08/2013 AU10 add ;<br/>Karen Bell, 8/08/2013 AU11 add ;<br/>Karen Bell, 8/08/2013 AU12 add .

Karen Bell, 8/08/2013



### Methodology

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

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

	Female	Male	Summary
Number	5	AU17 5	. <mark>U19</mark> 10
Average age	48 years	60 years	Overage average age 54

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>th me. Also the idea of oscillation – of movement arour<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 are still in the foreground – notwithstanding an elaborate Au25nce around these, and my research question". (3) **AU26** 

AU21	<b>add</b> ; Karen Bell, 8/08/2013		
AU22	add; Karen Bell, 8/08/2013		
AU23	suggests (add s) Karen Bell, 8/08/2013		
AU24	<b>add ,</b> Karen Bell, 8/08/2013		
AU25	<b>is what</b> Karen Bell, 8/08/2013		
AU26	<b>add .</b> 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 legitimation 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

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