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SCOPING THE HEALTH PROFESSIONS EDUCATION LANDSCAPE: WHAT ARE THE BIG QUESTIONS?

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OUTLINE

INTRODUCTION

AN EXAMPLE

RESEARCH ADVOCACY

THE EXAMPLE REVISITED

THE BIG QUESTIONS

CONCLUSION
OUTLINE

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INTRODUCTION

THE GOLDEN AGE MID 1990s-

• The growth of medical education

• Curriculum driven

• Small, particular, local questions

• ‘Me too’ research
INTRODUCTION

PBL RESEARCH

• Me too/ Not me too
• Trying to prove the unprovable
• Inappropriate methodologies
• Limited outcomes measures
• No important findings
INTRODUCTION

PBL RESEARCH - NORMAN & SCHMIDT PAPER DARTS

• Large scale curriculum interventions doomed to fail
  - blindedness
  - outcomes
  - interventions

• Theory based research
  - theory building research
  - relationships between variables in PBL

Norman & Schmidt 2000
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AN EXAMPLE

BEME SYSTEMATIC REVIEW OF FACULTY DEVELOPMENT

- International panel
- 1980-2002 Medline, ERIC, EMBASE
- 2777 abstracts 53 papers met inclusion criteria
- Improved teaching effectiveness, beyond satisfaction
- 6 coders

Steinert et al 2009
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BEME SYSTEMATIC REVIEW OF FACULTY DEVELOPMENT

• Kirkpatrick levels

1 satisfaction
2a changes in attitudes
2b changes in knowledge, skills
3 changes in behaviour
4a changes in the system, organisational practice
4b changes in students, residents, colleagues

Kirkpatrick 1994
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SYSTEMATIC REVIEW OF FACULTY DEVELOPMENT - FINDINGS

• Weak designs
  - surveys, questionnaires
  - pre/post

• Low Kirkpatrick levels

• Little reference to literature, theory
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BEME SYSTEMATIC REVIEW OF FACULTY DEVELOPMENT

• Findings

- + self-reported changes in attitudes
- + self-reported changes in knowledge and skills
- + self-reported changes in behaviour
- ? changes in organisational practice
- ? changes in students, residents, colleagues
RESEARCH ADVOCACY

LITERATURE IN MAJOR JOURNALS 2000-

• Themes
  - overviews
  - methodology +++
  - theories/ paradigms
  - ethics

• International Handbook 2015

Norman, van der Vleuten, Newble 2015
RESEARCH ADVOCACY

NORMAN - 50 YEARS OF MER, WAVES OF MIGRATION 2010

- First generation 1960s
  - immigrants from other disciplines

- Second generation 1990s
  - from the disciplines but worked in MER

- Third generation 2000s
  - ME discipline researchers, health professionals
    (PhD, Masters) programs
RESEARCH ADVOCACY

REGEHR- NOT ROCKET SCIENCE, METAPHORS IN HPER 2011

• Metaphor of the physical sciences
  - proof, evidence, simplicity, generalisable solutions

• Metaphor of the education sciences
  - rich understandings, complexity, collective problems

Regehr 2010
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RESEARCH ADVOCACY

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THE EXAMPLE REVISITED

• Expanded international panel

• 2002-2012 Medline, EMBASE, CINAHL, ERIC

• 112 papers met inclusion criteria

• Improved teaching effectiveness, beyond satisfaction

• 13 coders
INTRODUCTION

BEME SYSTEMATIC REVIEW OF FACULTY DEVELOPMENT

• Findings
  - + self-reported changes in attitudes
  - + self-reported changes in knowledge and skills
  - + self-reported changes in behaviour (some observed changes)
  - ? changes in organisational practice
  - ? changes in students, residents, colleagues
INTRODUCTION

SYSTEMATIC REVIEW OF FACULTY DEVELOPMENT- FINDINGS

- Weak designs
  - surveys, questionnaires
  - pre/post (some post delayed)

- Low Kirkpatrick levels

- Some more reference to literature, theory
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THE BIG QUESTIONS

• Has much changed?

• Norman’s third wave?

• Regehr’s education sciences?

• Can we define the big questions?
THE BIG QUESTIONS

CLINICAL EDUCATION

• Why do longitudinal placements lead to superior performance?

• What do students learn in clinical placements (k,s,a)?

• From whom do they learn?

• What drives learning, self-regulation?
THE BIG QUESTIONS

CLINICAL EDUCATION

• How does clinical reasoning develop?

• How do novices/experts employ clinical reasoning?

• What is the effect of patient exposure?

• Can clinical reasoning be taught?
THE BIG QUESTIONS

CLINICAL EDUCATION, THEORIES

• Constructivism
• Situated learning
• Authentic learning
• Transformative learning
• Communities of practice
• Cognitive psychology, memory and cognition
THE BIG QUESTIONS

ASSESSMENT

- Does assessment drive learning (how)?

- How do different assessment tools drive learning (WBA)?

- How does progress testing drive learning?

- How does programmatic assessment drive learning?
THE BIG QUESTIONS

ASSESSMENT

• How do novice/expert raters make decisions?

• How do raters make EPA decisions micro/macro?

• How do supervisors make decisions about safety to leave?
THE BIG QUESTIONS

ASSESSMENT, THEORIES

• Learning theories
  - motivation
  - self-regulation

• Cognitive dissonance

• Cognitive overload
THE BIG QUESTIONS

METHODOLOGIES

• Not surveys, not descriptive statistics

• Qualitative
  - discourse analysis
  - narrative
  - think aloud protocols

• Multivariate analysis

• Mixed designs
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CONCLUSION

THINK BIG!

• Is the question worth asking?

• Is it generalisable, does it go beyond me too?

• Will my methodology lead me to answer it?

• Is it set within a theoretical context?