



# Problems & possibilities: Exploring paradigms for mixed methods research

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## Weaving an interpretivist stance throughout mixed methods research

Katrina McChesney & Jill Aldridge

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### SPECIAL ISSUE:

“A kaleidoscope of perspectives on the potential, contributions, and grand vision of a mixed methods approach to educational inquiry”

# 4 relevant problems

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Unresolved debate re relationships between **methods** & **paradigms** in mixed-methods research (Greene & Caracelli, 1997; Johnson & Onwuegbuzie, 2004; Morgan, 2007; Bazeley, 2009; Bergman, 2010; Creswell & Plano Clark, 2011; Mertens, 2012; Shannon-Baker, 2016; Fetters & Molina-Azorin, 2017b; Hathcoat & Meixner, 2017)

Mixed methods research seen as “**insufficiently rigorous**” (Bergman, 2010)

Reporting of studies often **omits** discussion of paradigm / positioning (Alise & Teddlie, 2010)

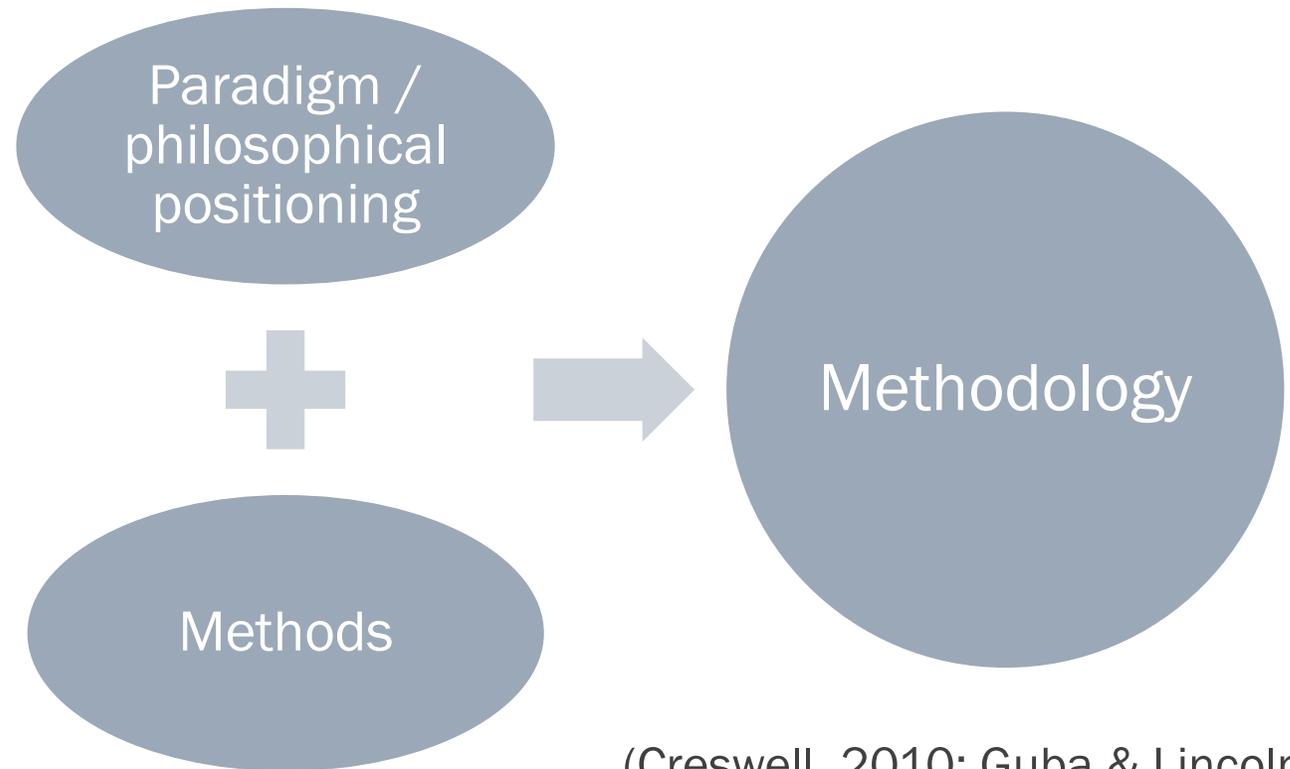
**Lack of exemplars** of robust mixed methods research (Bryman, 2007)

# Paradigms & methods

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**Paradigm** = “a worldview, together with the various philosophical assumptions associated with that point of view”  
(Teddlie and Tashakkori, 2009)

**Method/s** = “tools and techniques” for data collection and analysis  
(Guba & Lincoln, 1989)



(Creswell, 2010; Guba & Lincoln, 1989; Mackenzie and Knipe 2006)

# Combining methods & paradigms: 5 stances

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1. Binary stance – particular methods belong with particular paradigms

## Problems for mixed-methods research:

- Incommensurability (Kuhn 1970; Lincoln 1990) – mixed-methods impossible?
- Lack of genuine qual-quant integration (Yin 2006; Tashakkori & Creswell 2007b).

# Combining methods & paradigms: 5 stances

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## 2. A-paradigmatic stance – side-stepping paradigms in favour of ‘what works’

“Paradigms could be important for methodology but should not be used to inform the inquiry process’ (Shannon-Baker, 2016)

### Problems for mixed-methods research:

- Credibility
- Validity
- Coherence

# Combining methods & paradigms: 5 stances

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3. Dual / dialectical stance – combining 2 paradigms (1 for Qual, 1 for Quant) in one study

## Problems for mixed-methods research:

- Incommensurability again
- Reduction of one paradigm in favour of the other
- Two parallel but distinct studies on same topic (qual / quant)

# Combining methods & paradigms: 5 stances

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4. Pragmatist stance (subset of dual / dialectical) – paradigms are logically independent so can be mixed and matched harmlessly based on what suits the research question/s

“The pacifier in the paradigm war” (Bergman, 2010)

“It is one thing to endorse pluralism [or dialecticalism] ... but it is quite another to build a social science on a what-works pragmatism. *It is a mistake* to forget about paradigm, epistemological, and methodological differences between and within QUAN/QUAL frameworks. *These are differences that matter.*” (Denzin, 2012)

## Problems for mixed-methods research:

- Incommensurability
- Reduction of one paradigm in favour of the other
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# Combining methods & paradigms: 5 stances

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## 5. Holistic / single-paradigm stance – one paradigm for the whole of a mixed-methods study

“If it suits their purposes, any of the theoretical perspectives could make use of any of the methodologies”

(Crotty 1998, 12; see also Guba & Lincoln 1994; Johnson & Onwuegbuzie 2004; Mackenzie & Knipe 2006; Gray 2013)

**Not a new idea – BUT to date most mixed-methods research using this stance has taken an overarching positivist or post-positivist stance**

(Giddings 2006; Alise and Teddlie 2010; Hesse-Biber 2010; Denzin 2012; Torrance 2012)

# My doctoral research

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“Investigating teachers’ experiences of professional development within a major education reform in the Emirate of Abu Dhabi” (2017; <http://hdl.handle.net/20.500.11937/57566> )

Interpretivist paradigm underpinning all aspects of a mixed-methods study

Interpretivism (Willis 2007):

- *understanding* (not explaining, generalizing or critiquing) the fundamental aim of research
- *understanding-in-context* – situatedness of knowledge

# Research objectives

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Focus on teacher perceptions

Verbs – *investigate, examine, compare* (not *measure, evaluate, determine ...*)

Extra objective added in response to teachers' voices

Interpretivism: “Approaches that leave open the opportunity to discover things as the research progresses” (Willis, 2007)

# Data sources

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Teacher perceptions = data from teachers (no attempt to “triangulate” via other stakeholders)

Qual & quant interwoven

Sample	Quant	Qual	
393 teachers	Survey × 2 786 sets of responses	Open response item 96 comments	<i>Gathered together</i>
35 teachers	Survey × ~8.5 297 sets of responses	In-depth interviews	<i>Gathered together</i>

# Sampling

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Main focus = capturing the diverse range of experiences in the wider target population

Larger sample:

- Invitation to all teachers in target population
- Targeted data gathering to improve representation

Smaller sample:

- Purposive + snowball sampling

Interpretivism: seeking to capture “the multiple perspectives that are inherent in most human endeavors” (Willis, 2007)

# Data analysis, interpretation, & reporting (1)

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Most objectives – separate qual & quant analyses then brought together to draw holistic conclusions (Bryman, 2007).

- Quant: Means, standard deviations, confidence intervals, correlation, multiple regression, ANOVA
- Qual: Thematic analysis, constructivist grounded theory (Charmaz)

Reporting for individual objectives – some sequential, some interwoven

Cross-study reporting / synthesis

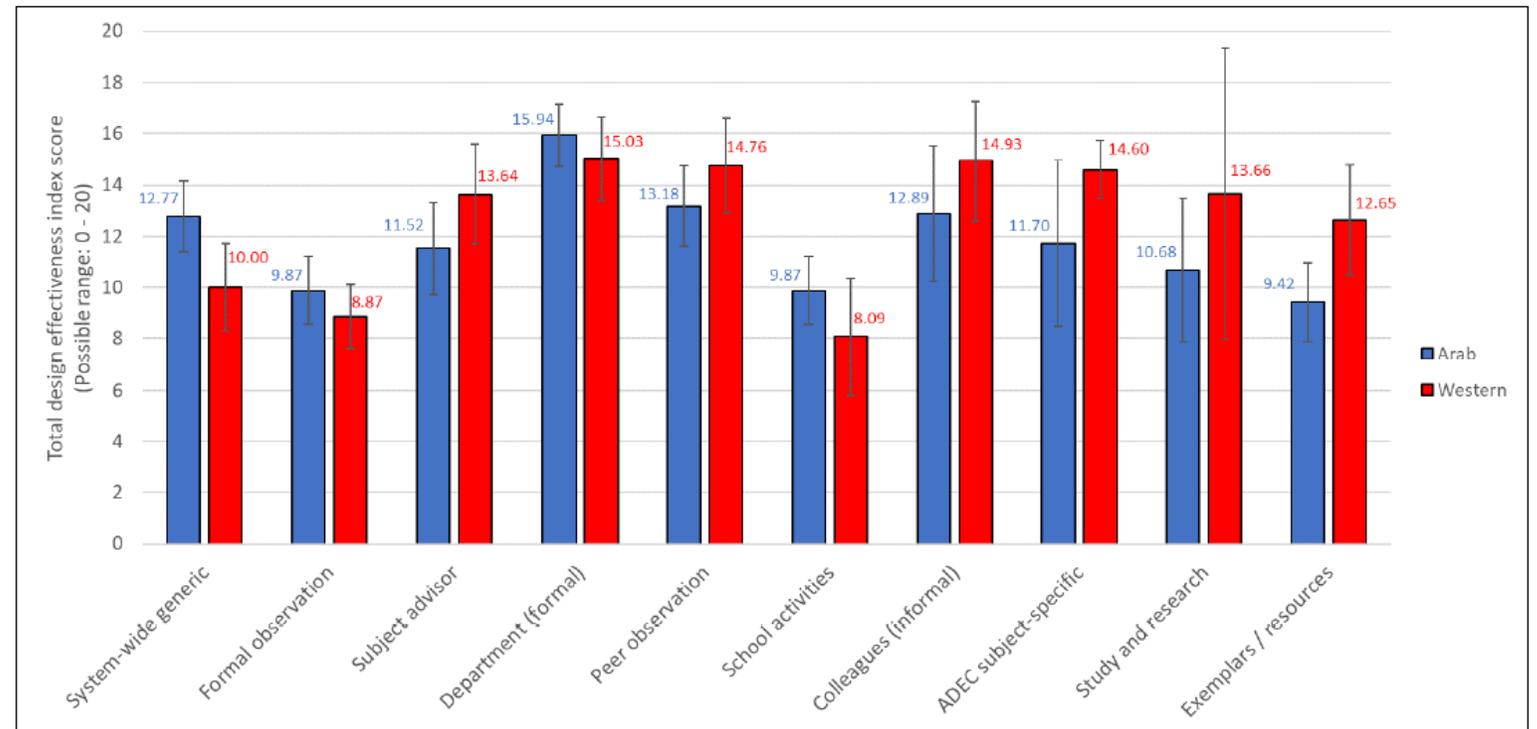
“In genuinely integrated studies, the quantitative and qualitative findings will be mutually informative. They will talk to each other ... and the idea is then to construct a negotiated account of what they mean together ... Mixed methods research ... is about forging an overall or negotiated account of the findings that brings together both components of the conversation or debate.” (Bryman, 2007)

# Data analysis, interpretation, & reporting (2)

Alert to possible impact of cultural differences in communication (e.g. Hofstede et al., 2010)

Key idea: all data reflected teachers' constructions of meaning – not absolute truth

Example: Arab vs Western teachers' perceptions of different forms of PD



# Quality considerations

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Existing quality criteria for mixed-methods research (Howe 2012; Torrance 2012):

- Post-positivist worldview
- Qual & quant being used to develop a single definitive / generalisable understanding of the research topic

Instead: Specific practices to enhance quality & validity in interpretivist / social constructivist research

- Creswell & Miller (2000)
- Willis (2007)
- E.g. member checks; extended researcher experience in the research environment; peer review; researcher journaling; audit trails; disconfirming evidence; thick, rich qualitative description ...

# More info

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Thesis: <https://espace.curtin.edu.au/handle/20.500.11937/57566>

Journal article: <https://www.tandfonline.com/doi/abs/10.1080/1743727X.2019.1590811>



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# Zooming out – paradigms & methods

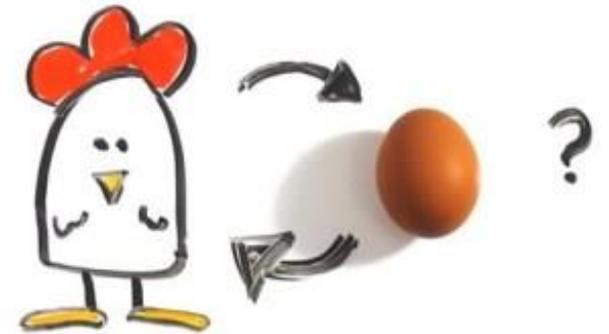
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Whichever is chosen first (methods or paradigm/s) does not predetermine the other

Not all method/paradigm combinations may make sense – but certainly interpretivism can work for single-paradigm mixed method studies

3 recommendations (McChesney & Aldridge, 2019):

1. That the paradigmatic or philosophical underpinnings of any research study be **explicitly stated**
2. That both the paradigm(s) and methods selected be **suitable** to allow the aims and objectives of the study to be met
3. That researchers **demonstrate how** the research methods and the overall conduct of the study reflect or acknowledge the chosen paradigm(s), **making explicit and justifying** design decisions



“Using multiple and diverse methods is a good idea, but is not automatically good science ... Lacking justification and planning, mixed method decisions may not be defensible.”

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GREENE AND CARACELLI, 1997