Thinking methodologically
Ways of knowing

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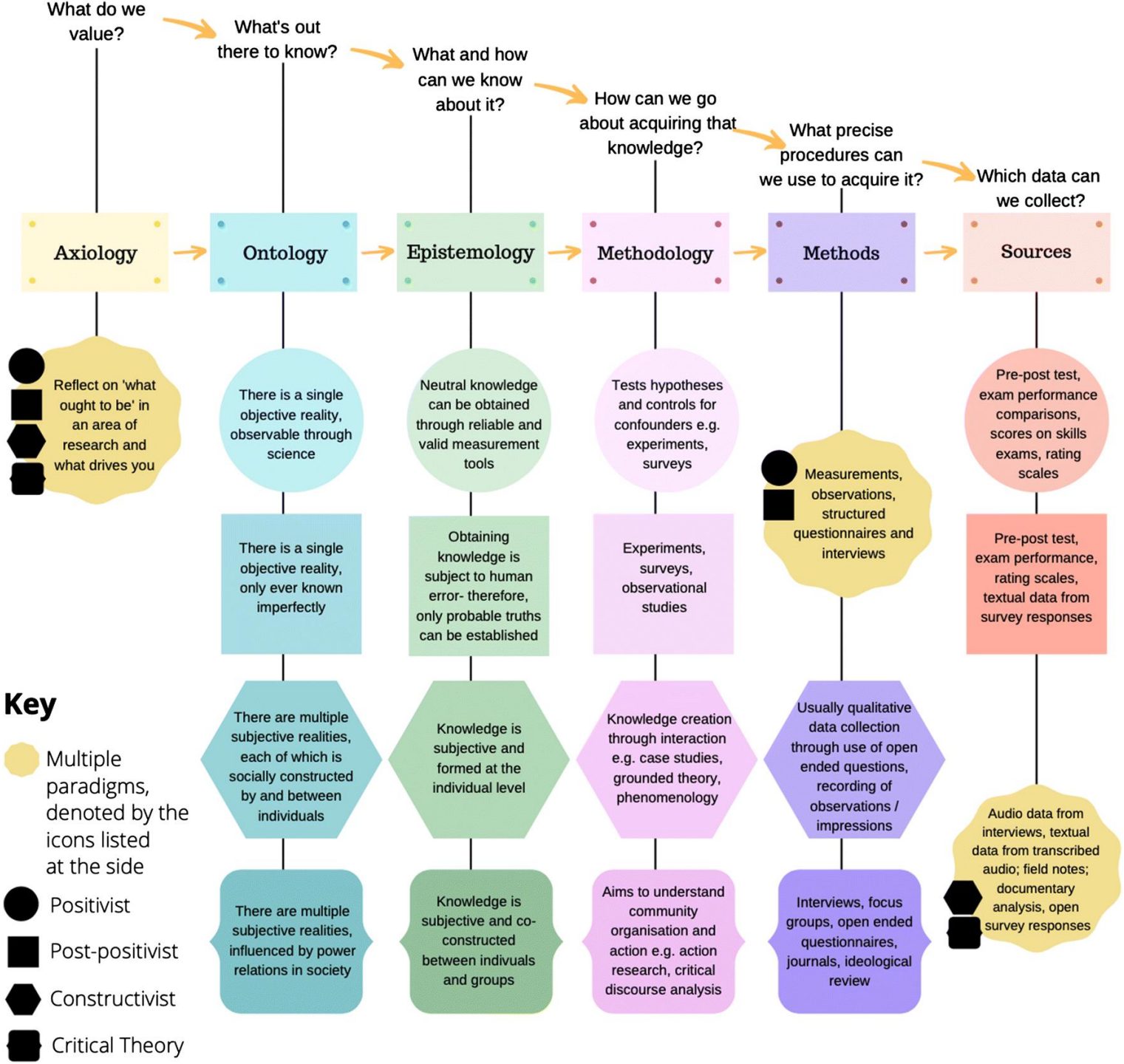
Outline:

Overview terminology in relation to me

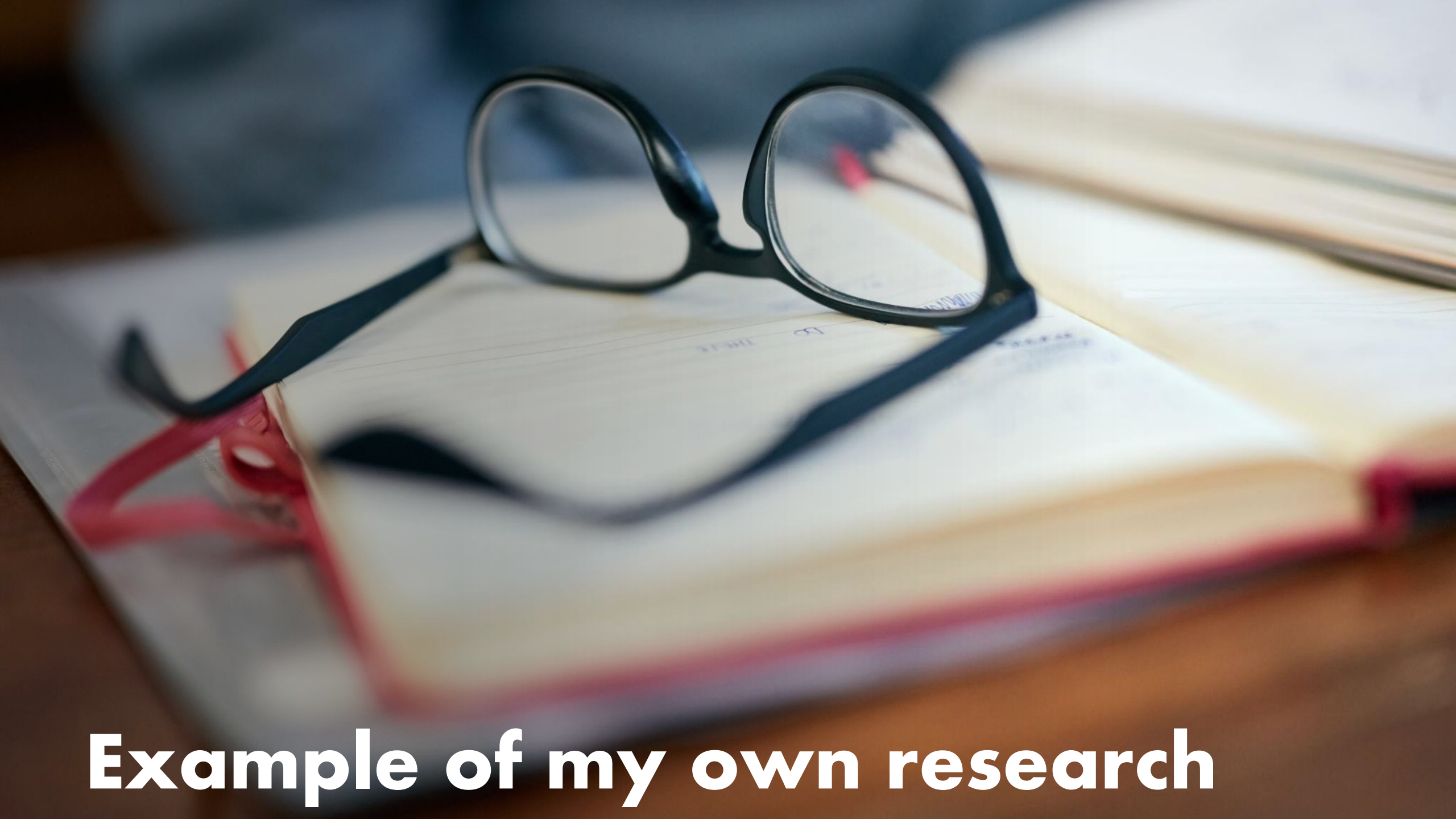
Examples from my own research

Advice for undertaking educational research

Paradigms, Ontology, Epistemology and Methodology in healthcare education research



Brown & Dueñas (2020)



Example of my own research

EdD Research Project – 2009-2013

Theoretical and methodological choices at decision junctures within the research process

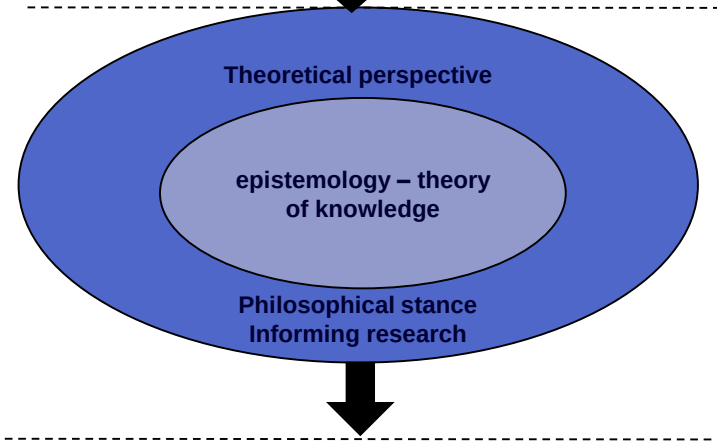
(Koro- Ljungberg et al. 2009)

Purpose Statement

To investigate the significance of gender in physiotherapy students constructions of professional identity and critically examine inequalities of gender

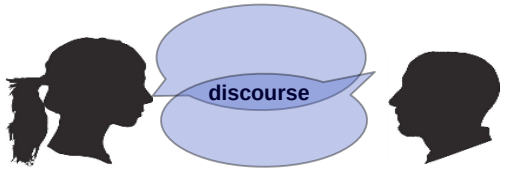
Research questions

1. ***How*** do students construct gender identities in physiotherapy?
2. ***What*** types of gender discourses are articulated in students experiences of becoming a physiotherapist?
3. ***What*** are the implications for representations of gender in physiotherapy education and practice?



Critical Theory/ Pedagogy

Principles
- people strive to inhabit world (education) full of aymmetries of power *(McLaren 2009)*
- education is fundamental to democracy *(Giroux 2009)*
- education should redress inequalities
- education researcher should be active, political and aim to transform practice



Identities are shaped
- in and through discourse (not inside one's head)
- in a dynamic (not static) process
- in an active process of 'doing' (performative)
- by positioning oneself and being positioned by others

(Butler 1999, Foucault 1979, 1980, Gergen 2009)

Sampling

Population All physiotherapy students → **Year 2** Most significant practice → **Purposive?** perceive favoritism or tokenism? → **Convenience** voluntary sample

Data collection methods

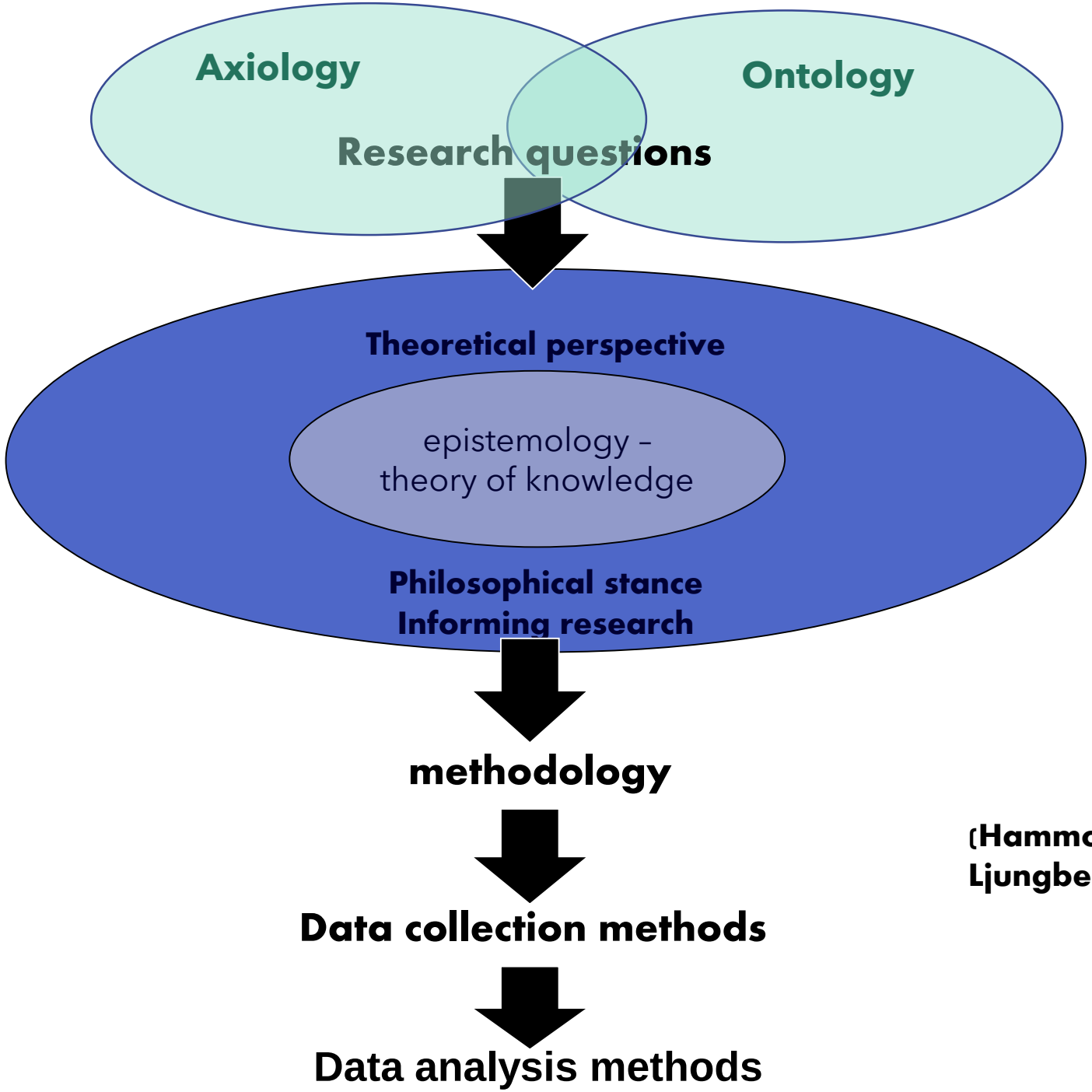
Narrative Methods
Identities constructed in talk of life experiences
(Smith & Sparkes 2008, Clandinin & Connelly 2000)

A Biographical Narrative Interview Method
(Wengraf 2001, 2008)
B Audiodiary - solicited recorded diary entries using a digital recording device. Diary entries are constructed in relation to me as researcher and the imagined audience (*Monrouxe 2009)*

Analysis method

Discourse Analysis
analysis of discourses available to individuals enables an understanding of systems of power which empower or restrict the narrators ways of seeing and being in the world

Foucauldian approaches - *framework for analysis of narrative transcripts and how discourse shapes identity (Willig 2001, Kendall & Wickham 1999)*
Critical approaches - Identify social inequalities and obstacles to address them *(Fairclough 2010)*



(Hammond 2016, based on Koro-Ljungberg et al 2009)

Exploring purpose and questions

Philosophical stance
- **Positivist / Post-positive?**
- **Interpretive?**
- **Critical?**

Central Research Aim

- To explore the significance of gender in physiotherapy students' constructions of professional identity

Research questions

- How do students construct gender identities in physiotherapy?
- What types of gender discourses are articulated in students' experiences of becoming a physiotherapist?
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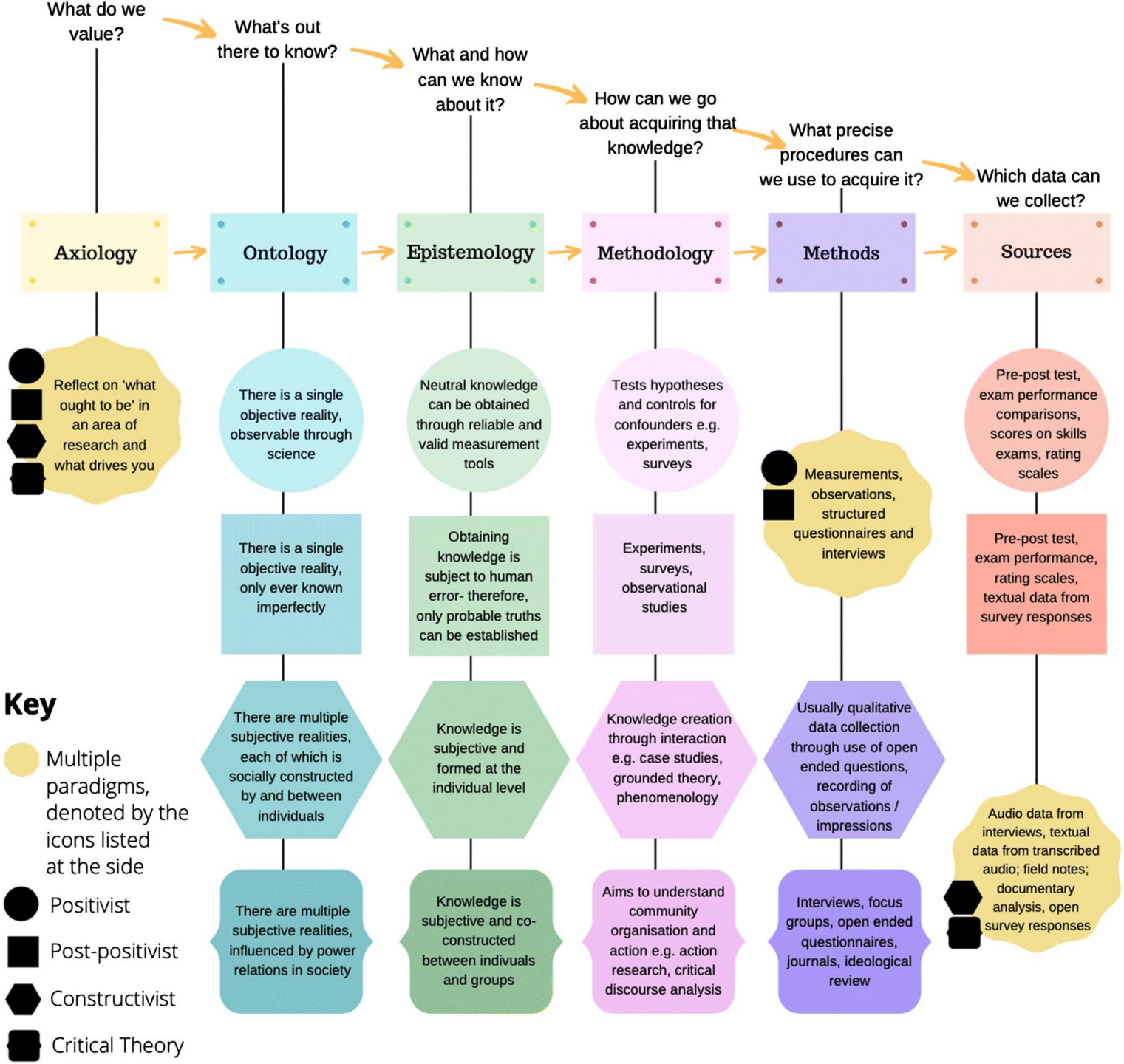
Paradigms, Ontology, Epistemology and Methodology in healthcare education research



Brown & Dueñas (2020)

knowledge?

What precise procedures can we use to acquire it?

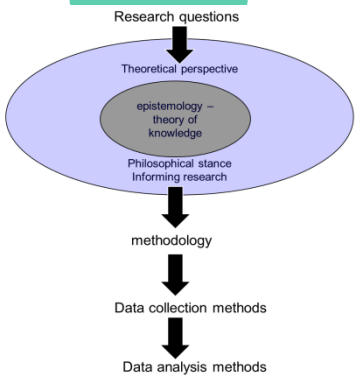
Which data can we collect?

Axiology	Ontology	Epistemology	Methodology	Methods	Sources
Reflect on 'what ought to be' in an area of research and what drives you	There is a single objective reality, observable through science	Neutral knowledge can be obtained through reliable and valid measurement tools	Tests hypotheses and controls for confounders e.g. experiments, surveys	Measurements, observations, structured questionnaires and interviews	Pre-post test, exam performance comparisons, scores on skills exams, rating scales
	There is a single objective reality, only ever known imperfectly	Obtaining knowledge is subject to human error- therefore, only probable truths can be established	Experiments, surveys, observational studies		Pre-post test, exam performance, rating scales, textual data from survey responses
	There are multiple subjective realities, each of which is socially constructed by and between individuals	Knowledge is subjective and formed at the individual level	Knowledge creation through interaction e.g. case studies, grounded theory, phenomenology	Usually qualitative data collection through use of open ended questions, recording of observations / impressions	Audio data from interviews, textual data from transcribed

Key

Multiple paradigms, denoted by the icons listed at the side

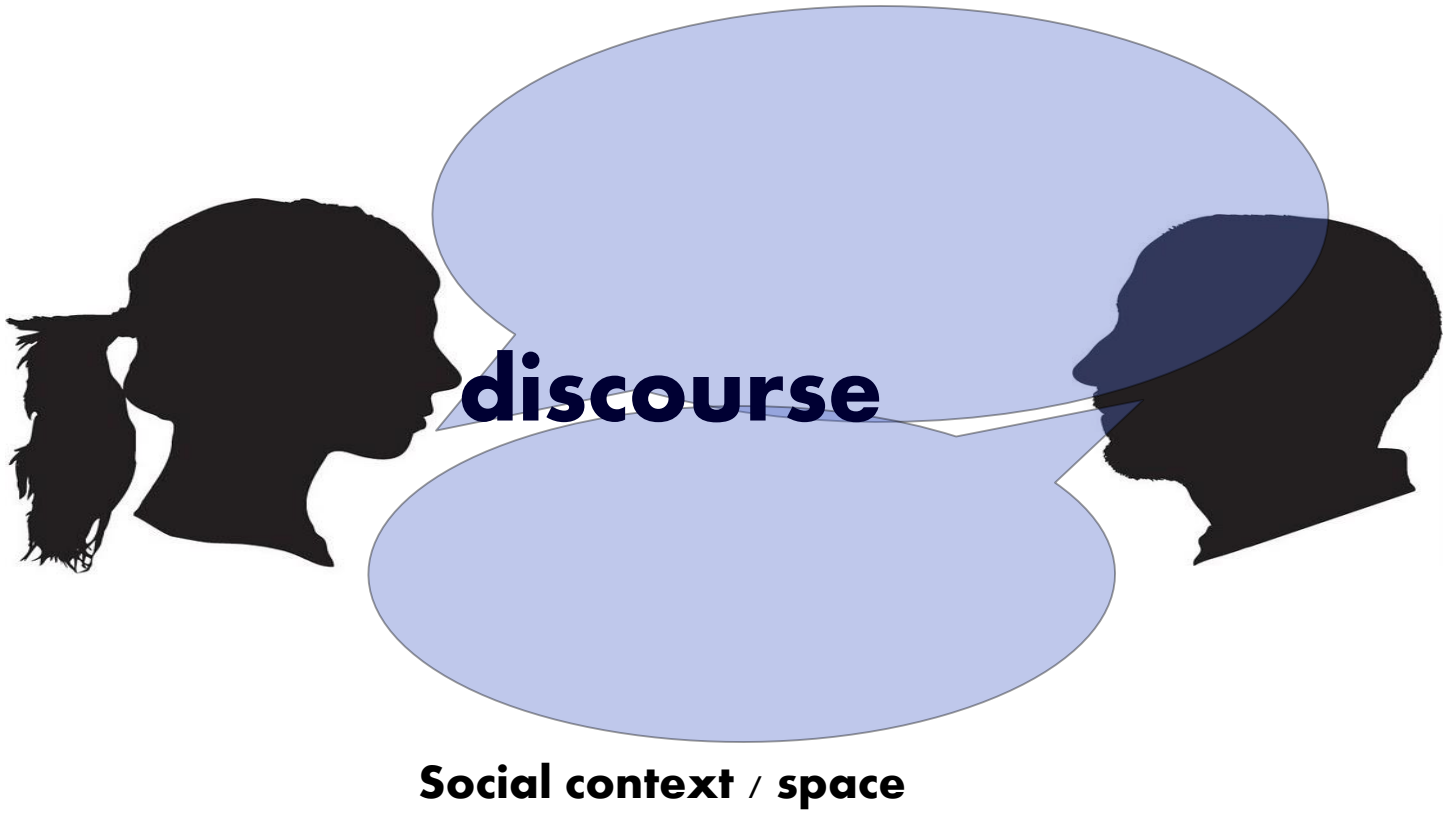
Ways of knowing gender identities



Choices?

- Self identification
  - Psycho- analytical
- Analysing identity in interactions
  - social constructivist
- Performative identities
  - social constructionist

Ways of knowing
Gender identities

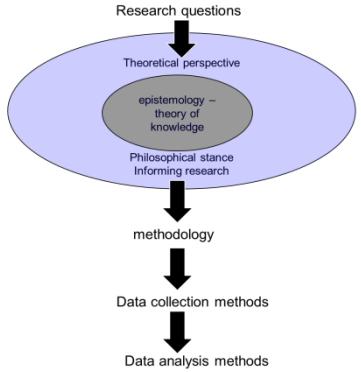


Social constructionism

- in and through discourse (not inside one's head)
- a dynamic (not static) process
- an active process of 'doing' (performative)
- positioning oneself and being positioned by others
- within systems and structures

(Butler 1999, 2004, Foucault 1979, 1980, Gergen 2009)

Methodological choices

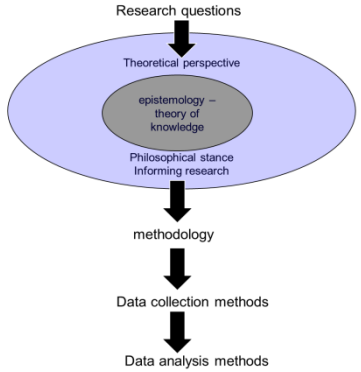


What sort of approach?

- Ethnography?
- Narrative?
- Phenomenology?
- Grounded theory?

What population / sample?

Data Analysis methods discourse analysis



Why discourse analysis?

- Can look at language associated with a particular topic (e.g. gender) *(Willig 2001, Taylor 2001)*
- Can examine discourses available to people and the ways in which they enable or constrain actions within systems and structures *(Willig 2001, Carabine 2001)*

Methods of discourse analysis

- Foucault inspired
- Critical discourse analysis

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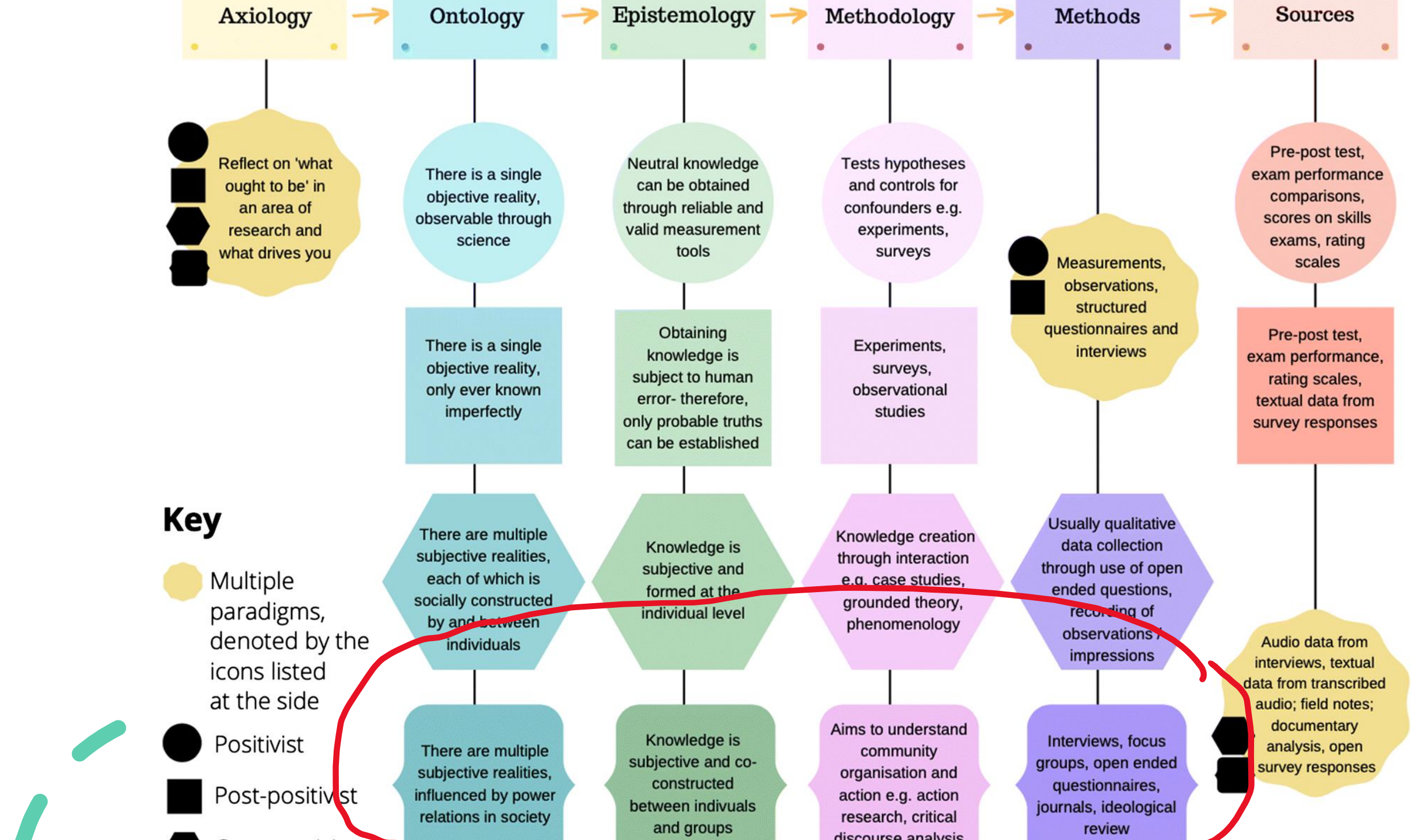
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Aims to understand community organisation and action e.g. action research, critical discourse analysis
Interviews, focus groups, open ended questionnaires, journals, ideological review
Key
Multiple paradigms, denoted by the icons listed at the side
Positivist
Post-positivist

Ways of knowing
Critical approaches
(Friere 1971, Giroux 2011, McLaren 2009)

1. People strive to make sense and inhabit a world of asymmetries of power
2. Democracy is the basis for addressing these inequalities and empowering individual freedoms
3. Public and education settings are important sites of struggle to work with citizens (students) to transform practice

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Critical approaches

- Feminist / Queer
- Emancipatory
- Postmodern / poststructural
- Postcolonial

What steps I took during the critical research process

Students

- work ‘with’ to redress issues

Curriculum

- Recognise opportunities to explore and discuss gender /power

Political

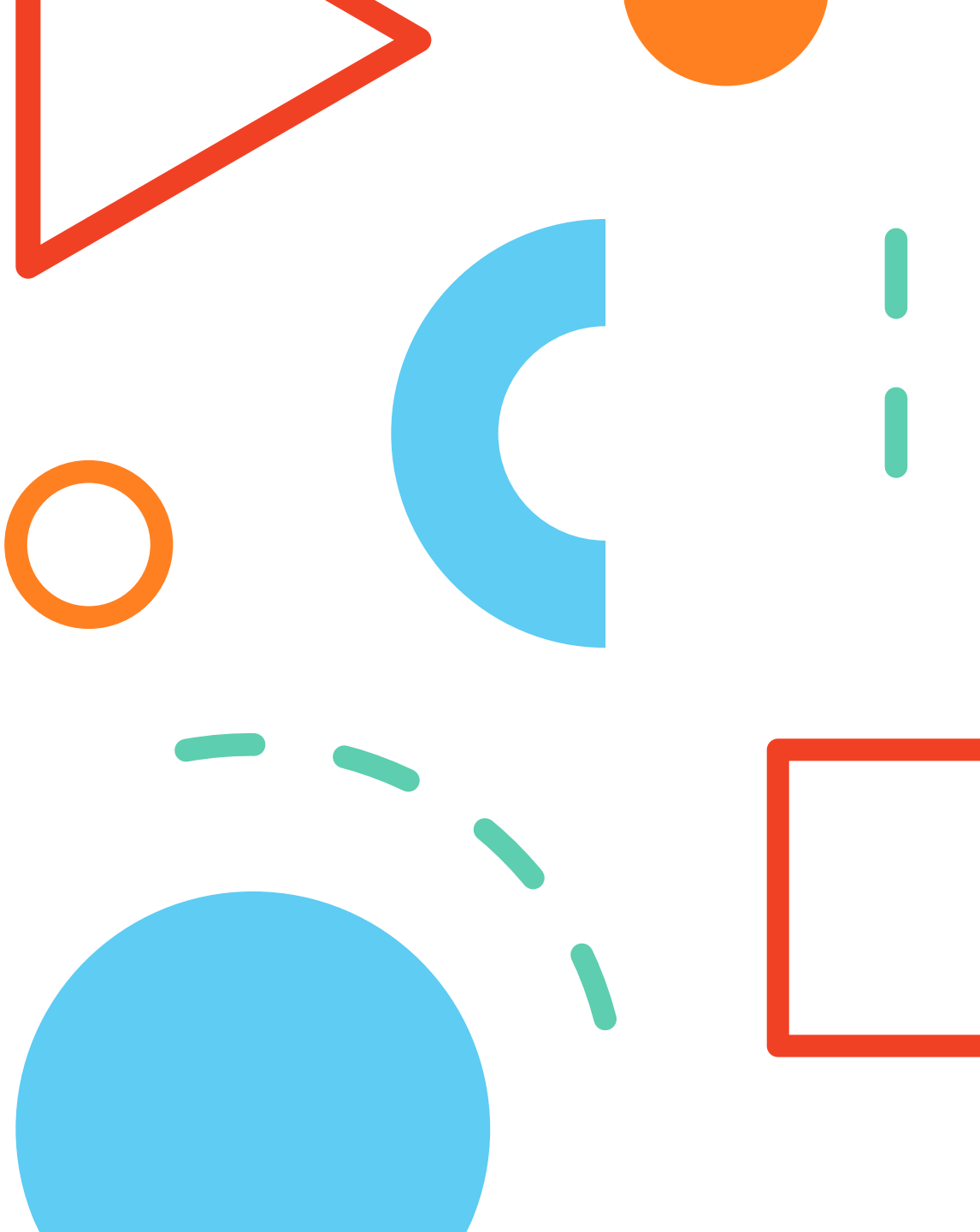
- Personal, research and policy

What steps I took while writing critical research

1. In my analysis, made clear my **position in relation to the participants** and their narratives
   - avoiding truth claims that might lead to symbolic violence
   - recognise my position and power as researcher / teacher / white man
2. Kept a **consistent stance** – eg expressions that I slipped into such as ‘reveal’ and ‘expose’ indicate a different theoretical position – eg identities something can be got at (eg psychological)
3. Developed an **assertive and active ‘voice’** in my writing
   - What I am doing and what I aim to do

Critiques of critical research approaches

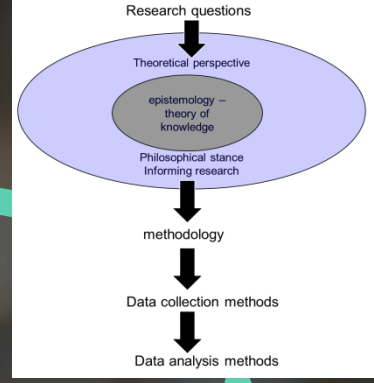
- Is it really empowering? Does it change lives?
- Is there really such a separation of paradigms positivism / interpretivism?
- Tension of researcher being political vs dispassionate.

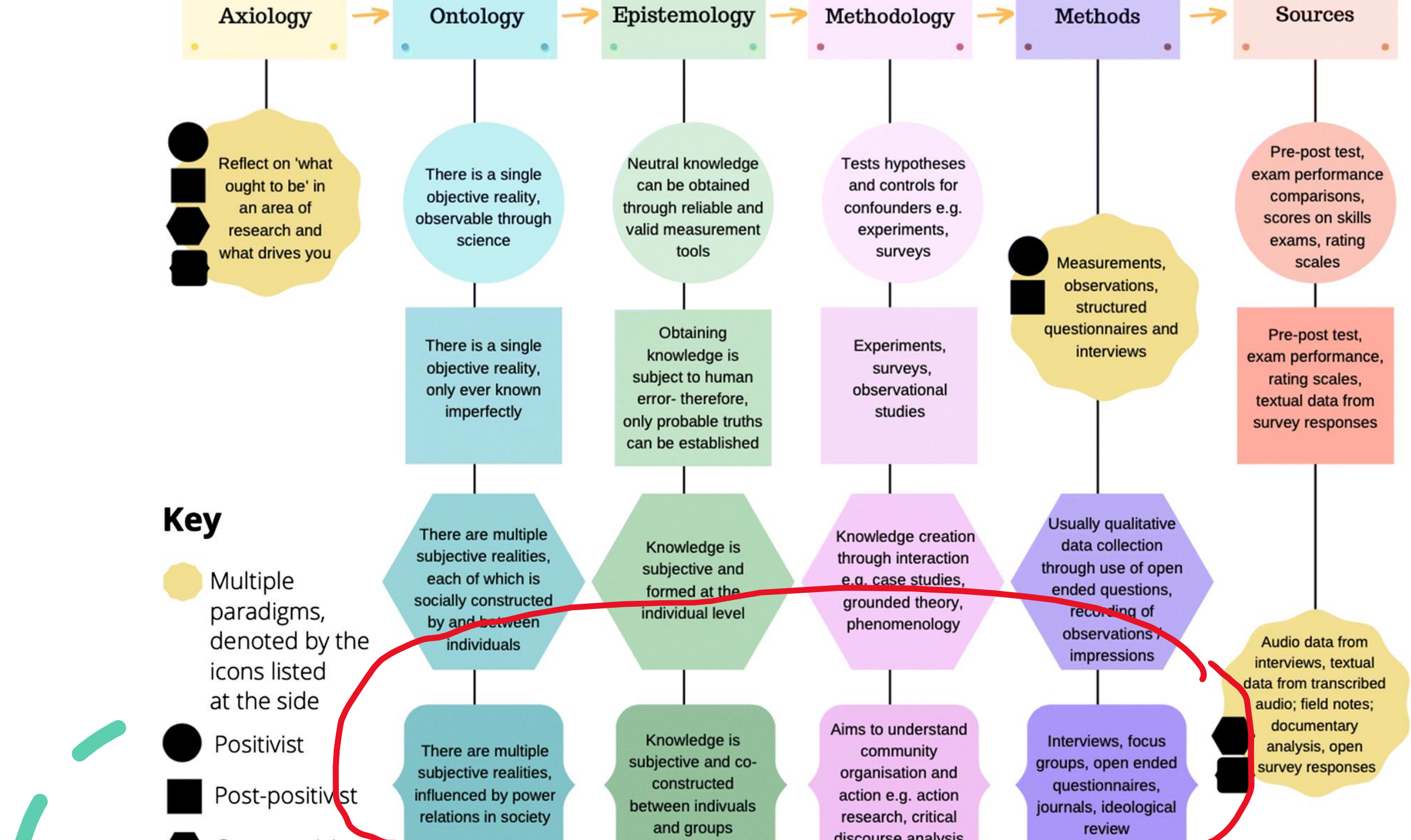


An
example
since then

Research Question

What attainment inequalities exist in physiotherapy education?

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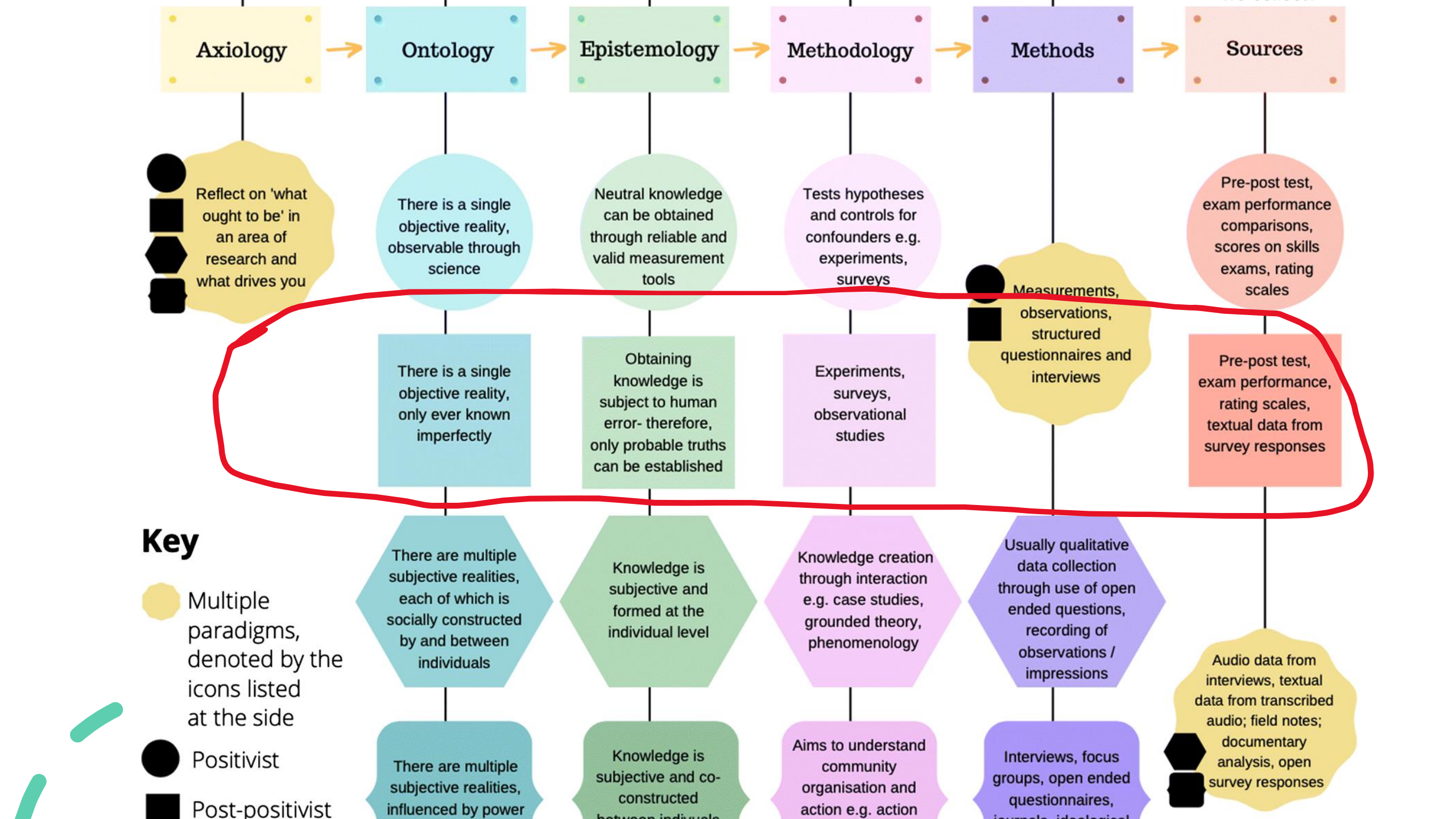
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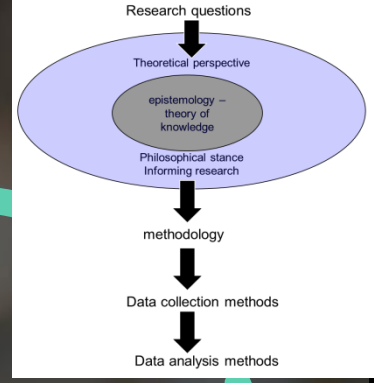
Methodology + methods

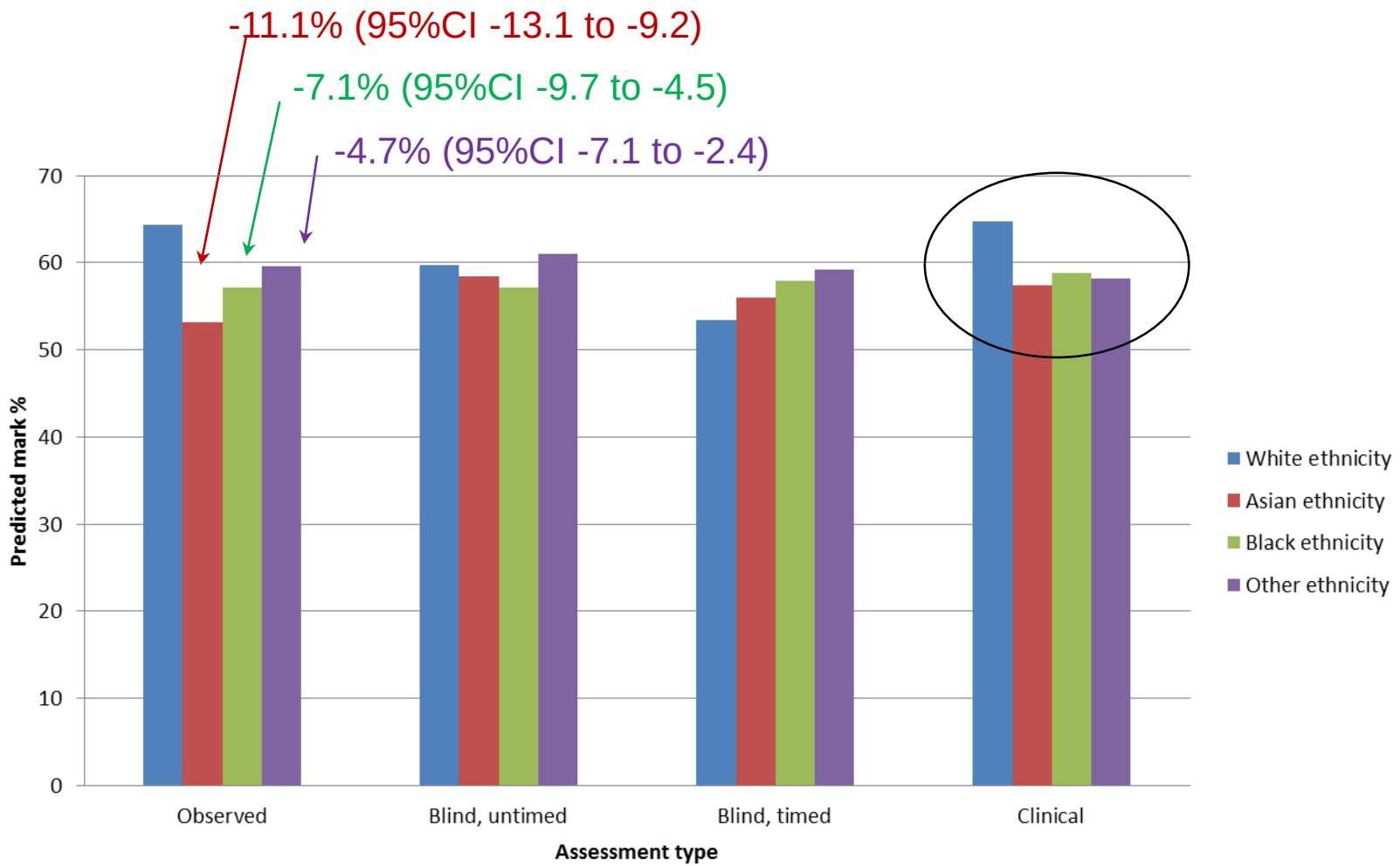


Retrospective analysis of all marks awarded for academic and clinical assessments across all levels of study including degree attainment in relation to multiple socio-demographic variables

Assessment types categorised into Observed, Blind timed/ untimed and Clinical

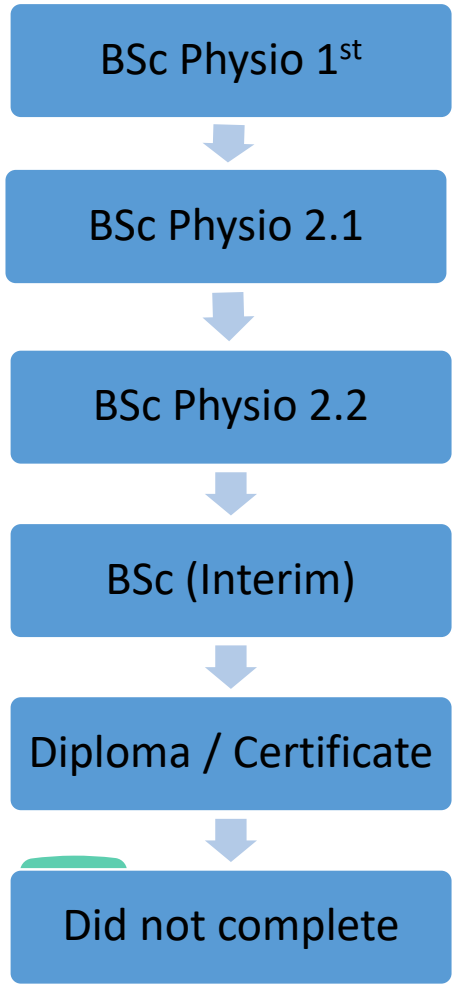
Assessment

BSc assessment types: Associations with demographic variable



Norris et al (2017)

Award

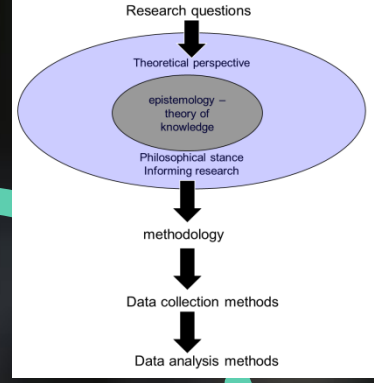


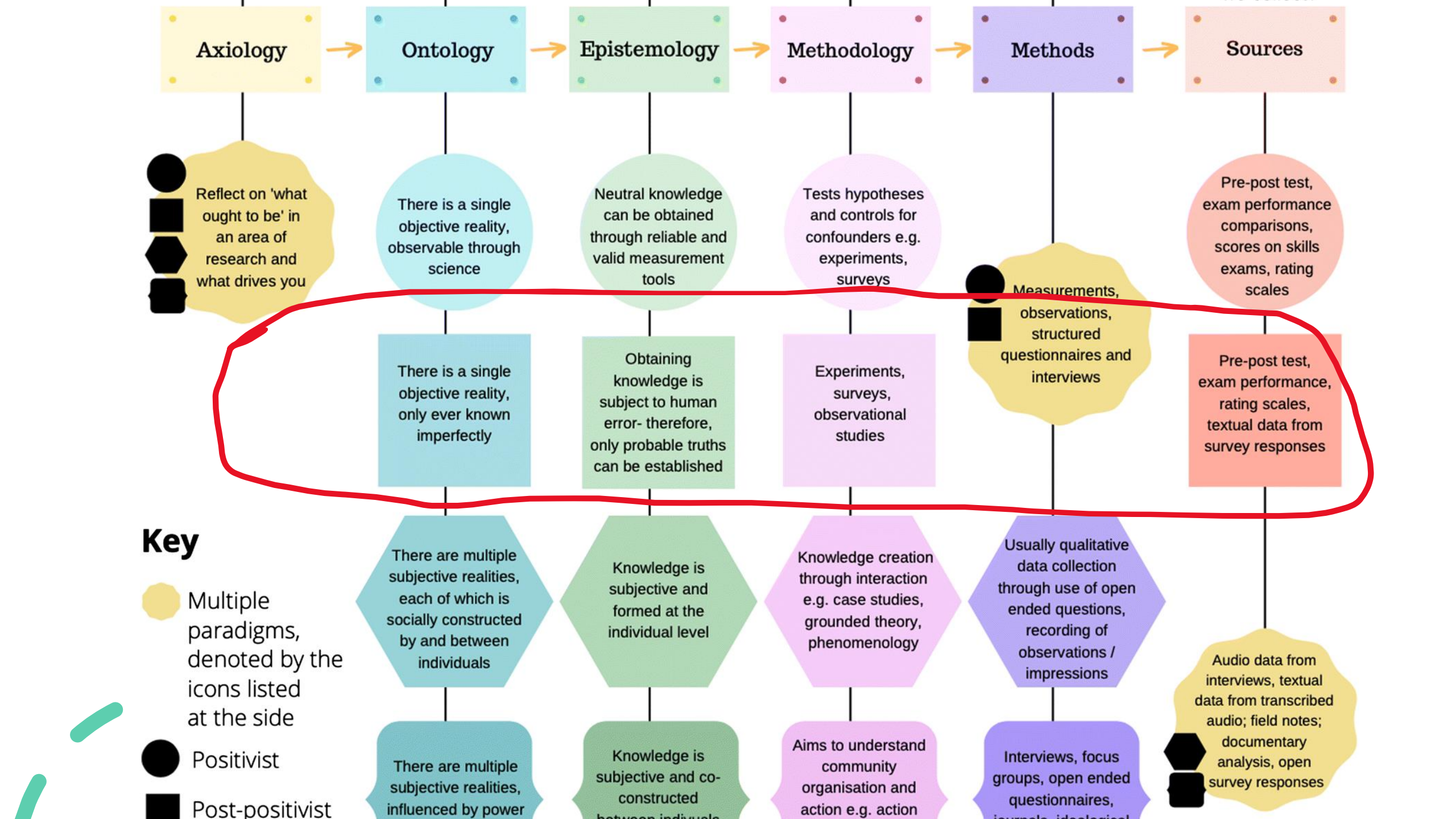
	OR	95% CI
female	0.6638*	0.54 to 0.82
21 and over	0.6867*	0.52 to 0.90
Asian ethnicity	3.97*	2.82 to 5.59
Black ethnicity	3.3482*	2.22 to 5.06
Other ethnicity	2.0269*	1.36 to 3.01
Learning disability	1.2849	0.96 to 1.72
Physical disability	1.1775	0.61 to 2.28
Other disability	1.4333	0.56 to 3.67
Access/BTEC entry qualification	2.0466*	1.49 to 2.82
Degree entry qualification	1.1204	0.82 to 1.53
Other/not knwn entry qual	2.4098*	1.53 to 3.79

Norris et al (2017)

The next question

What are physiotherapy student experiences from B.A.M.E backgrounds?

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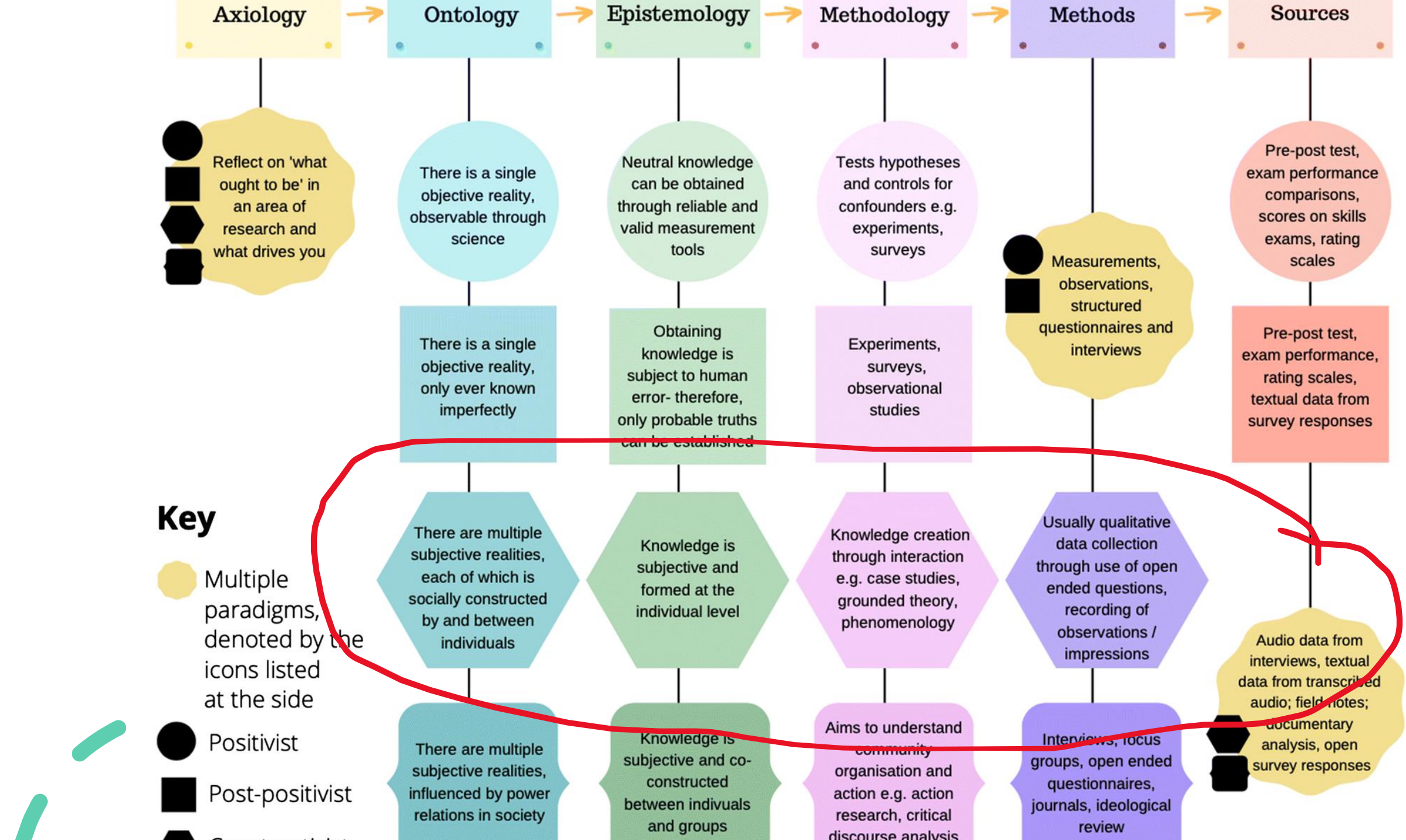
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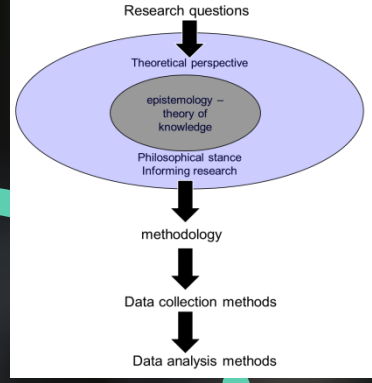
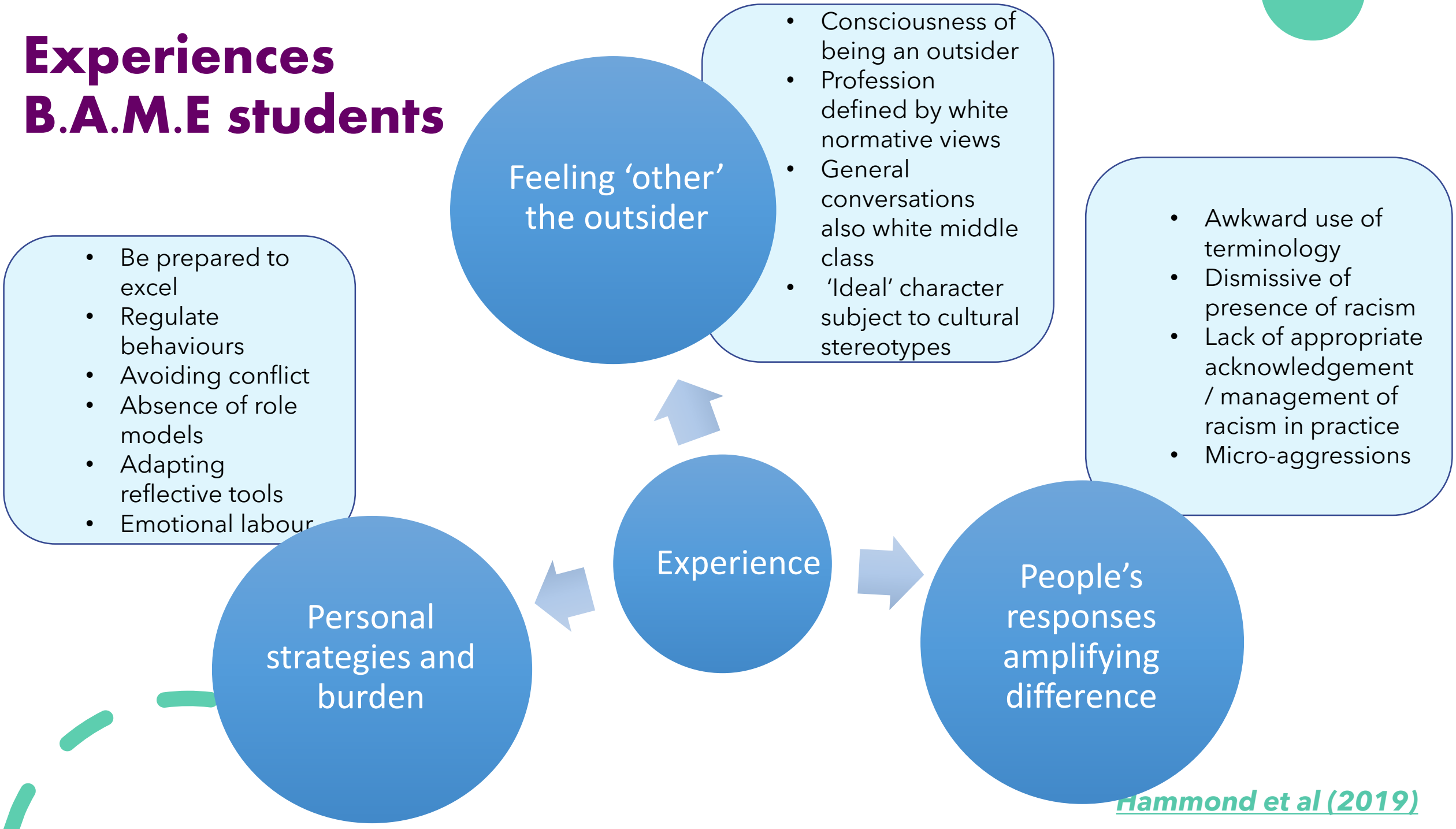
Methodology + Methods



- Phenomenology (Finlay 2011) informed qualitative study
  - Focus on experience as student from BAME background
- Focus groups
  - Interviewer – outside host institution
  - Topic guide – identity, experiences uni and placement and results of study Norris et al 2017
- Analysis –thematic analysis – iterative process

Experiences B.A.M.E students



Hammond et al (2019)

Advice for undertaking educational research

- Reflect on your own values /ways of seeing (axiology/ontology)
- Work with others and clarify perspectives
- Refine your research question(s)? What is it you are trying to do?
- Consider theories that might help you (epistemology)
- Justify methodology and methods
- Use these steps for applications for funding and writing up.

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Table 1

Series of Decision Junctures: Examples of Theoretical and Methodological Choices That Could Be Associated With Particular Theoretical Perspectives

	Theoretical Perspective									
	Interpretivist					Critical				Pluralist
Decision Juncture Example	Ethnography	Constructivism	Social Constructionism	Phenomenology	Hermeneutics	Feminism	Critical Theories	Postmodern/ Poststructuralism	Postcolonialism	Hybrid Perspectiv
Epistemologies	Objectivism, subjectivism, constructionism	Subjectivism, constructionism, contextualism	Objectivism, subjectivism, constructionism, social epistemology	Objectivism, subjectivism, constructionism, idealism, naturalized epistemology, empiricism	Subjectivism, constructionism, contextualism, externalism	Objectivism, subjectivism, constructionism, feminist epistemology	Objectivism, subjectivism, constructionism, contextualism, feminist epistemology	Objectivism, subjectivism, constructionism, relativism, skepticism, pluralism	Objectivism, subjectivism, constructionism, social epistemology	Dependable on th epistemologies associated with the combined positions
Purpose statements	• To describe a culture and its various characteristics	• To describe individuals' perspectives, experiences, and meaning-making processes • To describe individuals' values and beliefs	• To describe socially constructed view on the phenomenon • To describe socialization, roles, dialogue, and transform-ation	• To describe the essence of a phenomenon • To describe participants' life worlds	• To understand holistically and cyclically participants' experiences • To interpret a phenomenon	• To emancipate women • To investigate the inequities shaping the lives of women	• To produce a sociopolitical critique • To address equities in order to promote change in the communities	• To deconstruct grand narratives • To address and re-create binaries and stable structures	• To address and rupture colonial practices • To produce more nuanced discourses of particular historical events	To combine variou (e)pistemologic and theoretical positionings, e.g feminist/ poststructuralis
Research questions	How do teachers and adminis-trators describe the current school culture at Lincoln High School?	How do classroom teachers describe their experiences of professional development workshops?	How does a mentor–mentee dyad describe the socialization process that takes place during the professional development workshop?	What is the essence of professional socialization (in the context of professional development)?	How do classroom mentees understand the role of professional development?	How do current professional development opportunities perpetuate relations of dominance?	How do Black and White administrators describe the educational and social elements that influence the professional development of African American teachers?	• What sociopolitical meanings and assumptions are associated with "being a good teacher"? • How does the binary "successful and unsuccessful teacher" function?	What are existing forms of colonization of primary schools in Native American communities?	How can the body be used as a site for learning and pedagogical exposure?

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Table 1

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	Theoretical Perspective									
	Interpretivist					Critical				Pluralist
Decision Juncture Example	Ethnography	Constructivism	Social Constructionism	Phenomenology	Hermeneutics	Feminism	Critical Theories	Postmodern/ Poststructuralism	Postcolonialism	Hybrid Perspectives
Sampling strategies	Closed (within a culture or particular unit)	Homogeneous, purposeful	Variety of options including purposeful, homogeneous, maximum variation	Homogeneous	Variety of options including purposeful and maximum variation	Variety of options including purposeful and homogenous	Purposeful	Variety of options including purposeful and maximum variation	Variety of options including purposeful and maximum variation	Variety of options including purposeful and maximum variation
Main data collection methods	Ethnographical interviews and observations	Individual interviews, journals	Group interviews, focus groups, group assignments, archival materials	Interviews	Interviews, archival materials	Interviews, observation, reflective journaling	Interviews, observations, reflective journaling	Interviews, archival materials	Interviews, archival materials	Interviews, observations, reflective journaling, archival materials
Analysis method	Domain analysis, content analysis, thematic analysis	Narrative analysis, grounded theory, conversation analysis	Discourse analysis, conversation analysis	Phenomenological analysis	Hermeneutical analysis, narrative analysis	Narrative analysis, conversation analysis, biographies, discourse analysis	Narrative analysis, conversation analysis, biographies, discourse analysis	Archaeology, genealogy, discourse analysis, rhizoanalysis	Narrative analysis, conversation analysis, biographies, discourse analysis	Archaeology, genealogy, discourse analysis, rhizoanalysis
Trustworthiness/ validity	Validity (Creswell, 2007)	Communicative and pragmatic validity (Rorty, 1979)	Validity as social phenomenon (Gee, 2005)	Validity (Creswell, 2007; Polkinghorne, 1989)	Ethical and substantive validation (Angen, 2000)	Ironic, paralogic, rhizomatic, voluptuous, transgressive validity (Lather, 1993)	Validity as communication and reflection (Habermas, 1990)	Validity as multiple and perspectival (Scheurich, 1996; Lather, 1993, 2001)	Crystallization (Richardson & St. Pierre, 2005)	Ironic, paralogic, rhizomatic, voluptuous, transgressive validity (Lather, 1993)
Main knowledge producer	Participant and researcher	Participant	Group of participants together	Participant	Participant and researcher	Participant and researcher	Participant and researcher	Participant and researcher	Participant and researcher	Participants and researcher
Role of researcher	Level of participation varies	Detached	A group member	Detached	Interpreter	Active, advocate	Active, political, advocate	Involved and constructive	Involved and political	Active, political
Research's relation to practice	Describe the practice	Describe the practice	Negotiate and transform the practice	Describe the practice	Interpret the practice	Change and transform practice	Change and transform practice	Deconstruct and rebuild practice	Change and transform practice	Change, transform, deconstruct, rebuild practice

Note. For definitions see, for example, Audi (1995) and Blaauw and Pritchard (2005), and for similar conceptualization see Lather (2007). We acknowledge that the theoretical perspectives and (e)pistemologies embedded in these perspectives are overlapping and interrelated. These simplified categories and labels are provided for discussion and reflection purposes only.

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