



ECDE7012

Session 4
8th February, 2024

SESSION 4

Focus: Returning to thinking about methodology:

- What is meant by methodology, method and research design and how do we report these elements of the research project?
- Theories underlying qualitative research.

Key Questions:

- What is methodology?
- How does the theoretical frame shape the analysis of data?
- What does a report of the methodology look like?

PHILOSOPHICAL CONCEPTS

Ontology

Epistemology

Methodology

Methods

Paradigm

PHILOSOPHICAL CONCEPTS



How can knowledge regarding the research question be produced?



What is the nature of reality?



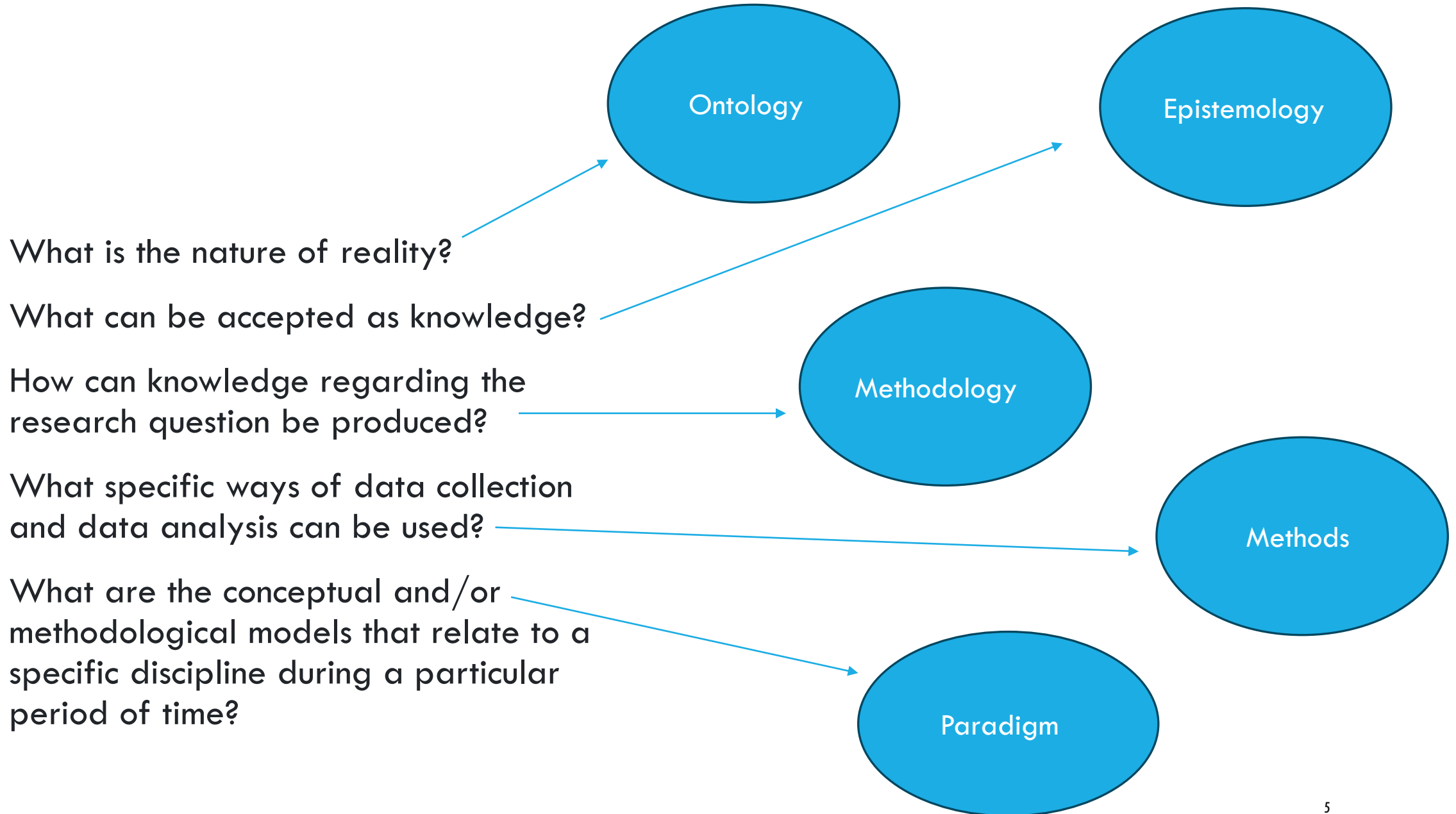
What specific ways of data collection and data analysis can be used?



What are the conceptual and/or methodological models that relate to a specific discipline during a particular period of time?



What can be accepted as knowledge?



**ONTOLOGY AND EPISTEMOLOGY IN RESEARCH -
THEY'RE NOT AS COMPLEX AS THEY SOUND!**

www.youtube.com/watch?v=cdmkdFJAdnw



Realism

“the view that entities exist independently of being perceived, or independently of our theories about them”

(Phillips, 1987, p. 205)

Phillips, D. C. (1987) Validity in Qualitative Research: Why the Worry about Warrant will Not Wane. *Education and Urban Society*, 20 (1), 9-24.

Giacomini, M. (2010) Theory matters in qualitative health research. In I. Bourgeault, R. Dingwall, & R. de Vries (eds.), *The Sage handbook of qualitative methods in health research*. Thousand Oaks, CA: Sage.

Idealism



The belief that research knowledge is made up of subjective experiences obtained through observation that is consistently influenced by the researcher’s interpretations.

(Giacomini, 2010)

Qualitative research is intrinsically idealistic.



PARADIGMS

POSITIVISM

As a philosophy, positivism adheres to the view that only “factual” knowledge gained through **observation**, including measurement, is trustworthy.

In positivism studies, the role of the researcher is limited to **data collection** and **interpretation** in an objective way.

In other words, the researcher is an objective analyst and she distances herself from personal values in conducting the study = removing the possibility of bias.

POSITIVISM

With which ontology
would positivism
normally be
associated?



POSITIVISM

In these types of studies, research findings are usually **observable and quantifiable** that lead to statistical analyses.

The **researcher is independent** from the study.

Studies with positivist paradigm are based purely on **facts** and consider the world to be external and objective.

POSITIVISM

Ontology	Epistemology	Axiology	Typical methods
Real, external, independent	Scientific method Observable and measurable facts	Value-free research	
One true reality (universalism)	Law-like generalizations Numbers	Researcher is detached, neutral and independent of what is researched	Typically deductive, highly structured, large samples, measurement, typically quantitative method of analysis, but a range of data can be analysed
Granular (things)		Researcher maintains objective stance	
Ordered	Causal explanation and prediction as contribution		

POSITIVISM - TASK

Plan a study that adheres to a positivist research philosophy based on the following title:

A study into the impact of the Covid-19 pandemic on fashion brands in North America.

INTERPRETIVISM

Interpretivism involves researchers **interpreting** elements of the study.

“Interpretive researchers assume that access to reality (given or socially constructed) is only through social constructions such as language, consciousness, shared meanings, and instruments”.

(Myers, 2008)

Emphasizes **qualitative** analysis over **quantitative** analysis.

INTERPRETIVISM

Interpretivism is :

“associated with the philosophical position of idealism, and is used to group together diverse approaches, including social **constructivism**, **phenomenology** and **hermeneutics**; approaches that reject the objectivist view that meaning resides within the world independently of consciousness”.

(Collins, 2010)

Interpretivist studies usually focus on **meaning** and may employ **multiple methods** in order to reflect different aspects of the issue.

INTERPRETIVISM

With which ontology
would interpretivism
normally be
associated?



IMPORTANT ASPECTS OF INTERPRETIVISM

Naturalistic approach of data collection, e.g. [interviews](#) and [observations](#).

Included in this approach are:

- **Hermeneutics** = the philosophy of interpretation and understanding.
- **Phenomenology** = “the philosophical tradition that seeks to understand the world through directly experiencing the phenomena”.

(Littlejohn & Foss, 2009)

INTERPRETIVISM - TASK

Plan a study that adheres to an interpretivist research philosophy based on the following title:

A study into the impact of the Covid-19 pandemic on fashion brands in North America.

POSITIVISM VERSUS INTERPRETIVISM

Assumptions	Positivism	Interpretivism
<i>Nature of reality</i>	Objective, tangible, single	Socially constructed, multiple
<i>Goal of research</i>	Explanation, strong prediction	Understanding, weak prediction
<i>Focus of interest</i>	What is general, average and representative	What is specific, unique, and deviant
<i>Knowledge generated</i>	Laws	Meanings
	Absolute (time, context, and value free)	Relative (time, context, culture, value bound)
<i>Subject/Researcher relationship</i>	Rigid separation	Interactive, cooperative, participative
<i>Desired information</i>	How many people think and do a specific thing, or have a specific problem	What some people think and do, what kind of problems they are confronted with, and how they deal with them

EPISTEMOLOGICAL VERSUS ONTOLOGICAL POSITIONS OF THREE RESEARCH TYPES

Vrijhoef, R. & Ridder, H. (2008) *Methodological challenges of knowledge production in construction management research: The case of a postgraduate research into supply chain integration*. 2. 707-716.

		Ontology	
		Realism	Idealism
Epistemology	Positivism	Objectivism	Constructivism
	Interpretivism		Subjectivism

POSITIVISM AND INTERPRETIVISM

= two extreme mutually exclusive paradigms.

However, many thesis topics can fall broadly within more than one of these two main paradigms.

What do we do if this is the case?

PRAGMATISM

Recognises that:

- * there are many different ways of interpreting the world and undertaking research;
- * no single point of view can ever give the entire picture;
- * there may be multiple realities.

PRAGMATISM

The research question is the most important determinant of the [research philosophy](#).

Pragmatics can combine both, positivist and interpretivism positions within the scope of a single research according to the nature of the research question.

Pragmatism:

- can integrate more than one research approaches and research strategies within the same study.
- can integrate the use of multiple research methods - qualitative, quantitative, action research etc.

POSITIVISM, INTERPRETIVISM AND PRAGMATISM

	Research approach	Ontology	Axiology	Research strategy
<i>Positivism</i>	Deductive	Objective	Value-free	Quantitative
<i>Interpretivism</i>	Inductive	Subjective	Biased	Qualitative
<i>Pragmatism</i>	Deductive/Inductive	Objective or subjective	Value-free/biased	Qualitative and/or quantitative

The background of the slide is a dark gray gradient. On the right side, there is a dense cluster of circles in various shades of teal, green, and brown. These circles are connected by thin, light gray lines, creating a network-like or organic pattern that resembles a molecular structure or a complex web. The word "TASK" is centered in the middle of the slide, in a large, white, sans-serif font. A thin white vertical line is positioned to the right of the word "TASK", extending from the top of the word down towards the bottom of the slide.

TASK

RESEARCH APPROACHES

How would you categorise the study?

realist / idealist; positivist / interpretivist

What words, concepts or aspects of the research informed your judgement?

Could a study of this nature be completed in a different way?

Abstract

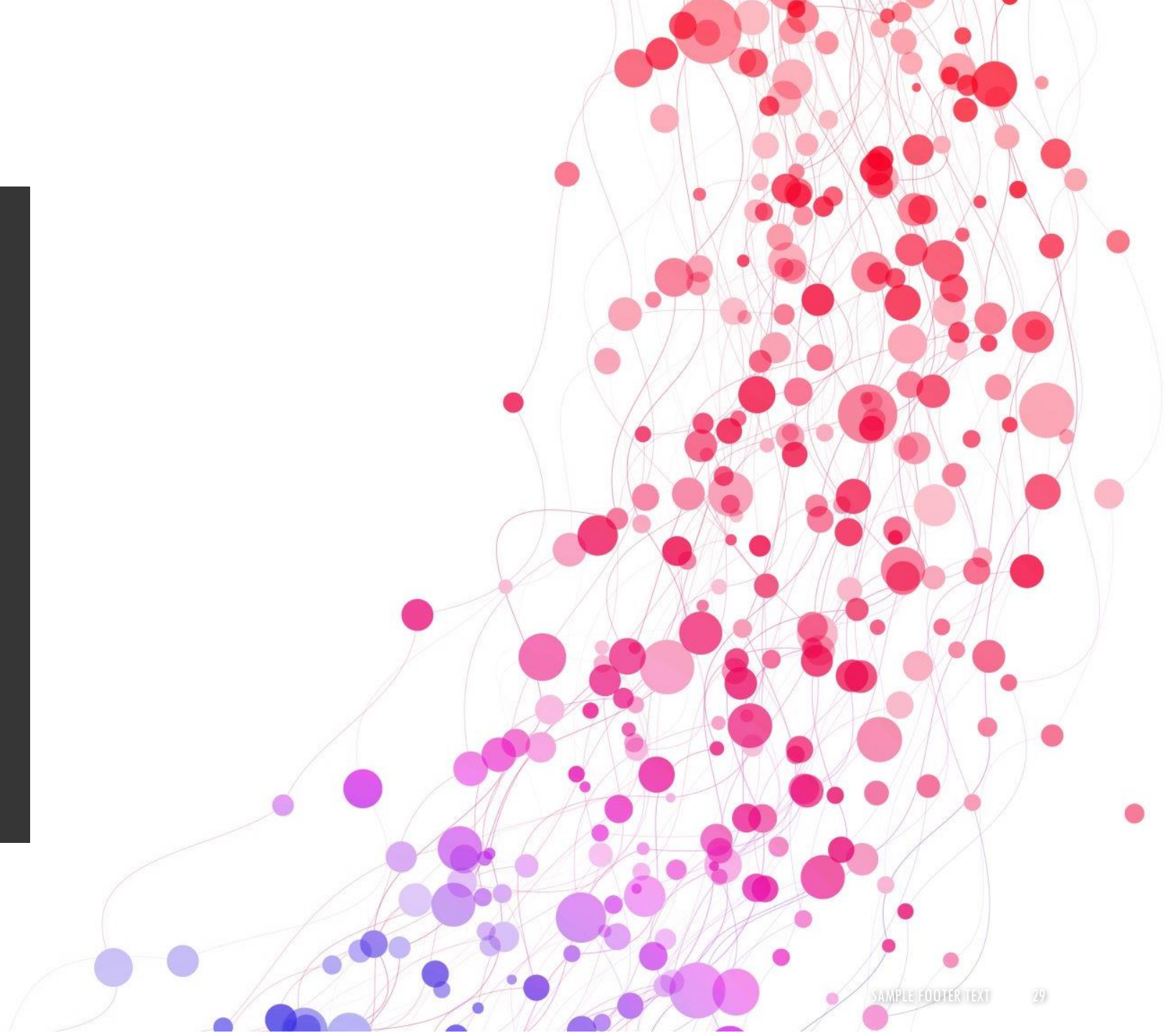
This paper presents findings from a study undertaken in Wales on the safeguarding of children educated at home. Findings revealed that just under a third of home educators had children with additional learning needs who were removed from school due to what parents reported as negative experiences. These experiences included the suitability of a school system based upon assessment and attainment for children with additional learning needs and a failure to provide adequate support. The decision to home educate was not taken lightly with parents persevering in attempts to make school work for their children. Similar issues are identified in recent media coverage in England and Wales which has suggested that rises in home education may be due to parents ‘off rolling’ their children because they feel forced out of schools that are unable or unwilling to promote inclusive practices. Findings showed that it was not school-based education that was rejected intrinsically but rather the extent to which schools could meet their child’s needs. In the advent of the Additional Learning Needs and Education Tribunal (Wales) Act 2018 these findings suggest that a more nuanced understanding of education is required where home education, either full-time or combined with school attendance, may be in the best interests of the child.

Maxwell, N., Doughty, J., Slater, T., Forrester, D. and Rhodes, K. (2018) Home education for children with additional learning needs – a better choice or the only option? *Educational Review*.

Abstract

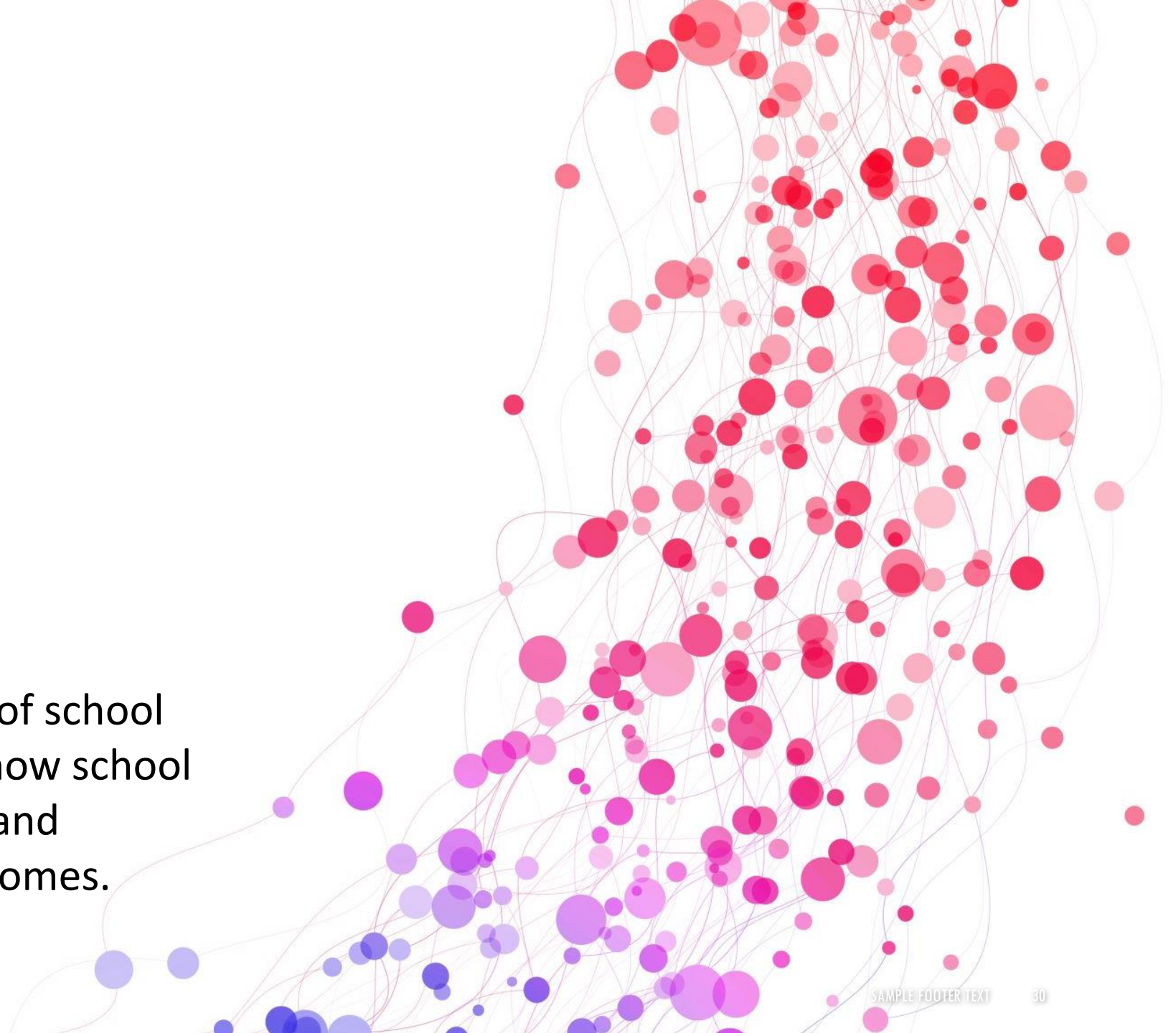
An efficacious assessment tool is as necessary for improving physics education as are innovative and effective methods of teaching physics. Most tests focus on evaluating students knowledge in specific areas such as conceptual understating, quantitative, and analytical problem-solving skills. Testing students' critical thinking has remained a difficult task. Further, testing students comprehensive knowledge is even more challenging. We present here a new assessment tool with the acronym "Categorized and Correlated Multiple Choice Questions" (CCMCQs) for evaluating the comprehensive physics knowledge level of students. This tool consists of correlated questions posed in three different sub-categories of physics. Those sub-categories are: (i) Conceptual understanding, (ii) Critical thinking, and (iii) Quantitative understanding. The questions are structured to first pose a conceptual question which is then correlated with a critical thinking question and that critical thinking question is further correlated with a quantitative question. Thus, all three questions are correlated with each other, and such correlated questions aid the student and teacher alike to identify learning deficiency more accurately, and guide students to self-correct their knowledge of physics by providing appropriate direction. Further, we discuss the outcomes of a one semester study on CCMCQs using data obtained from an introductory physics course.

EXAMPLE THESIS





EdD Thesis (2023):
Understanding the impact of school
inspection: An analysis of how school
leaders in Wales interpret and
respond to inspection outcomes.



4.2 Research paradigm

All research is based on a philosophical understanding of the way in which knowledge is acquired and the beliefs, values and assumptions that researchers employ when conducting their research (Kuhn, 1977). This is important, as it recognises that a researcher's own view of the nature of reality (ontology) impacts significantly on their relationship with and assimilation of knowledge (epistemology). Together, these help shape the researcher's 'worldview' (Creswell, 2009, p.12), which in turn influences the way in which new knowledge is acquired (methodology). According to Terre Blanche & Durrheim (1999), the three dimensions of ontology, epistemology and methodology are integral to the entire research process.

This study is born out of a constructivist ontology, in line with my belief that there are multiple realities constructed by individuals. This is reflected in my research aim, to better understand how school leaders in Wales interpret and respond to school inspection outcomes. It also conforms to my earlier assumptions relating to the propensity of school leaders to respond in different ways to the outcomes of inspection (see section 3.3.4). As outlined in *Chapter 2*, the study is rooted in an interpretivist paradigm that relies on the subjective experiences of individuals to develop meaning (Arthur *et al.* 2012). This epistemology is particularly relevant,

given my interest in exploring how school leaders' understanding and interpretation of inspection judgements inform what they do next. The interpretivist approach is closely aligned with qualitative methods of data generation, which allow for detailed, descriptive analyses based on humans' interaction with the world around them (Mertler, 2016).

My research questions are themselves interpretive in nature, given my interest in making connections between what school leaders understand by inspection outcomes, and their subsequent actions/behaviours. Indeed, my adoption of an interpretivist paradigm, and acceptance that 'objective reality can never be captured' (Denzin & Lincoln, 2005, p.5) and that knowledge and meaning are acts of interpretation (Gephart, 1999), has helped carve my worldview of school leaders as individuals shaped by their subjective experiences. These experiences were explored during the course of this study through the lens of post-structuralism, which reflects my belief that school leaders are products of an ever-changing and complex professional environment that shapes how they understand and respond to certain situations (see *Chapter 2*). I use Foucauldian theory, and in particular constructs of discourse and power (Foucault, 1972; 1977), to unpack key themes pertinent to the process of inspection and as a way of informing my analysis of school leaders' responses.

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FOLLOW UP THINKING TASK

Consider Assessment Component 2: Research Methods / Tools

Think about:

- your theoretical frame,
- the research design **and the justification for it,**
- the research tools **and justification for them.**

Search for some literature that will help you to **justify your decisions.**

ALSO — IN PREPARATION FOR NEXT WEEK:

Session 5:
AS305, 10-1

Focus: Research Design 2 / Sampling

Before this session, you will have received feedback from your ECDE7002 assignment (14/02/24). Use your feedback to refine your research plan, as needed. In preparation for the session, decide on a definite plan for the content of your ECDE7012 assignment. Consider:

1. What is your research problem?
2. What is/are your research question/s?
3. What research design may help you respond to your research question(s)?
4. What data collection tools might you use? (Why?)

In 5 minutes, present the answers to these questions to the class.

A consideration of a range of sampling types.

OPTIONAL READING

Epistemological Foundations of
Objectivist and Interpretivist
Research (udayton.edu)

Hillier, J. (2016) *An Introduction to Music Therapy Research*. Dallas: Barcelona Publishers.

Chapter 11

EPISTEMOLOGICAL FOUNDATIONS OF OBJECTIVIST AND INTERPRETIVIST RESEARCH

James Hiller

At the heart of music therapy research, as in any field, is a search for knowledge. For centuries, researchers in a remarkable range of disciplines have conducted research and published findings in a vast array of professional journals and books. It therefore seems reasonable to suppose that we ought to know by now how to go about conducting research, and more importantly what it means to have gained knowledge. Yet problems have persisted along the way and have at various times proven quite challenging and even inconvenient for researchers and their claims to knowledge (Kuhn, 2012). Of particular significance are philosophical beliefs regarding what actually constitutes legitimate knowledge and how knowledge can be gained, or in other words beliefs about what can be known and how we can know it (Alvesson & Skoldberg, 2009; Denzin & Lincoln, 2003; Pascale, 2011). These are questions of ontology and epistemology.

Ontology and Epistemology

Ontology is the study of being, of the nature of existence. Said other ways, it is the study of what exists, what is in reality, what is real, or in Crotty's simplest form, "what is" (1998, p. 10). Ontological beliefs, or assumptions in philosophy parlance, shape the types of questions a researcher might pursue about how the world works or how people act or interact. For example, in the natural sciences, key assumptions about reality fall under the ontology of realism. Realism holds that a reality exists outside of our consciousness of it and that certain fixed laws of nature—that is, given relationships between phenomena—are permanent fixtures

ADDITIONAL SLIDES

CONSTRUCTIVISM

Constructivism accepts reality as a construct of the human mind.

- reality is perceived to be subjective;
- closely associated with [pragmatism](#) and [relativism](#);
- all knowledge is constructed from human experience;
- based on inseparability between knowledge and knower.

It opposes the idea that there is a single [methodology](#) to generate knowledge.

Philosophy	Constructivism	Positivism	Pragmatism
<i>Type of research</i>	Qualitative	Quantitative	Mixed
<i>Methods</i>	Open-ended questions, emerging approaches, text and/or image data	Closed-ended questions, pre-determined approaches, numeric data	Both, open and closed-ended questions, both, emerging and predetermined approaches, and both, qualitative and quantitative data analysis
<i>Research practices</i>	Positions researcher within the context Collects participant-generated meanings Focuses on a single concept or phenomenon Brings personal values into the study Studies the context or setting of participants Validates the accuracy of findings Interprets the data Creates an agenda for change or reform Involves researcher in collaborating with participants	Tests or verifies theories or explanations Identifies variables of interest Relates variables in questions or hypotheses Uses standards of reliability and validity Observes and then measures information numerically Uses unbiased approaches Employs statistical procedures	Collects both, qualitative and quantitative data Develops a rationale for mixing methods Integrates the data at various stages of inquiry Presents visual pictures of the procedures in the study Employs practices of both qualitative and quantitative research

POSITIVIST PARADIGM VERSUS PHENOMENOLOGICAL PARADIGM

Positivist Paradigm

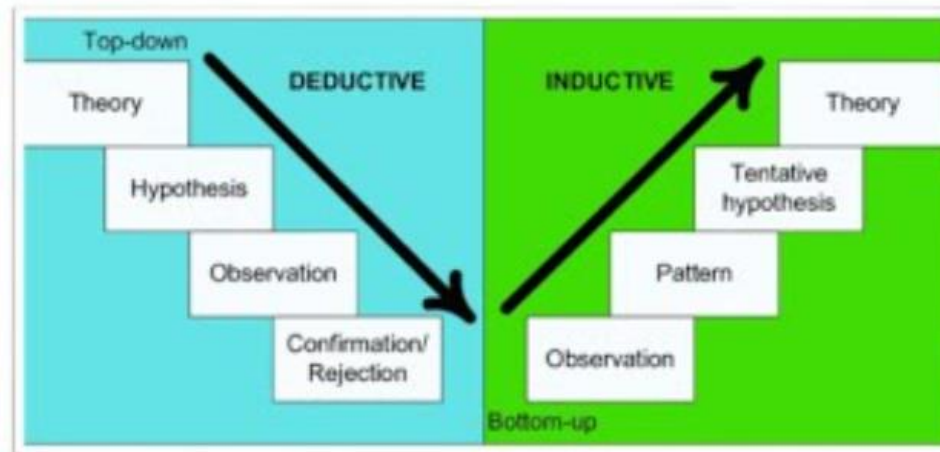
Relates to the viewpoint that the researcher needs to concentrate on facts.

Usually adopt a [deductive approach](#).

Phenomenological paradigm

Seeks to explain the nature of things through the way people experience them.

Usually associated with an [inductive approach](#).



POSITIVIST PARADIGM VERSUS PHENOMENOLOGICAL PARADIGM

Positivist Paradigm

The world is perceived as external and objective

Independence of the observer

Hypotheses formulation and testing them

Samples are normally large

Phenomenological paradigm

The world is perceived to be socially constructed and subjective

Observer is considered a part of the object of observation

Focusing on meanings

Exploring the totality of each individual case

Small samples are analysed in a greater depth or over longer period of time