



LCDB7011 Quantitative Research Methods

Week 1 – Overview

Dr. Helen LEE



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By the end of this session, you should ...

1. Know about research paradigms and philosophies
2. Be able to distinguish qualitative and quantitative research methods
3. Be able to decide when to use quantitative research
4. Be able to evaluate secondary sources



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Module overview



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Week 1 – Overview

Dr. Helen Lee, UWTSD



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Background: Areas of Research

- Consumer Behaviour
- Cross-Cultural Management
- Human-Technology Interaction
- Strategic Marketing
- Hospitality and Tourism Management
- Cultural Heritage

House Rules

- As a person, I have a few guiding principles for ensuring harmonious relationship.
- Moral message: Don't do to people what you would not wish that somebody should do to you.
- Respect everyone ! Let's be nice to one another and enjoy the sessions together, and at the end have good memories of one another.
- The lecture sessions would be interactive, and would involve lectures, video sessions, and Q&A sessions. At some point, I will do the talking, and at some point, you will do the talking

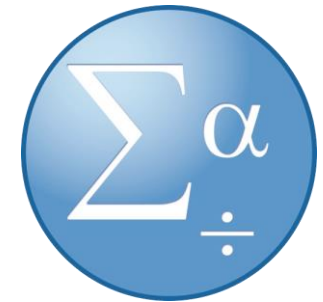


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Module Outline

- This module will be taught over a period of 12 weeks:
- Week 1 Module Overview, Research Paradigm & Conceptualisation
- Week 2 Research Design and Process
- Week 3-4 Sampling and Questionnaire
- Week 5-6 Basics of Statistical Analyses
- Week 7 Coursework Discussion
- Week 8 Test Classifications
- Week 9-10 Multivariate Analyses (I) (Reliability, Validity, Regression Analyses, Testing Hypotheses)
- Week 11 Multivariate Analyses (II)
- Week 12 Research Report write-up & structure



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Items	Description
Period	5 Jun – 24 July 2024 (Every Wed) Summer Break (25 July – 31 Aug) 3 Sep - 25 Sep (Every Wed)
No. of sessions	12
Time	9:00 am – 2:30 pm
Venue	Suite 111, IQ Building



LEARNING OUTCOMES

- critically assess the appropriate contexts for using quantitative research techniques, the philosophical underpinnings, strengths and limitations of quantitative research;
- develop a detailed understanding of applicable techniques for research and advanced academic enquiry;
- select from, and implement, a range of quantitative analysis techniques in order to address a particular research question;
- understand and critically evaluate quantitative research papers in the student's subject area of interest.
- assess the contexts for quantitative / qualitative empirical evidence and give a meaning to the data in / with an epistemological perspective.
- explore ways to further analyse data through mechanical / abstraction / coding with further analytical aids and the use of software to facilitate data analysis.



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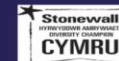
Assessment

One Assignment (100%)

- Refer to your Module handbook for details.

23 October 2024

Student name:		Student ID number:	
Programme:	Doctor of Business Administration		
Module:	Quantitative Research Methods		
Module code:	LCDB7011	Contribution to Overall Module Assessment (%):	100%
Lecturer:	Dr Helen Lee	Internal Verifier:	Caroline Jawad
Assignment Title:	Project Report	Word count (or equivalent):	7,500 words
Submission deadline:	23 October 2024	Return date of provisional marks & written feedback:	21 November 2024 (To be confirmed)
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 50%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

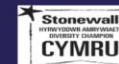


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Books and resources

Your module handbook contains a reading list, but for any major quantitative research project in the Social Sciences the book below is very, very useful:

- Byrne, D., (2002) Interpreting quantitative data, London: Sage
- Saunders, M., Lewis, P., Thornhill, A., (2019) Research methods for business students, 8th ed., Harlow: Pearson.



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Quantitative Research Methods

Your Thought(s)?



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Warm up activity – Quantitative Research Methods



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Introductory discussion

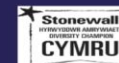
Video “Why You should Love statistics” (12:49 mins)

<https://youtu.be/ogeGJS0GEF4>

Ipsos Mori “Perceptions are not reality – what the world gets wrong”

<https://www.ipsos.com/ipsos-mori/en-uk/perceptions-are-not-reality-what-world-gets-wrong>

Based on the article and TED talk, discuss the following statement:
“Statistics are needed to manage data to create effective business research”



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Research Paradigms and Data Sources



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What is Quantitative Research Methods ?

Quantitative research is the process of collecting and analysing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalise results to wider populations. (Burrell & Gross, 2017)



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What is Quantitative Research Methods ?

Quantitative research is a way to learn about a particular group of people, known as a sample population..... Using scientific inquiry, quantitative research relies on data that are observed or measured to examine questions about the sample population. (Burrell & Gross, 2017)



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Research Paradigms and Data Sources

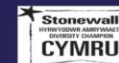


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Management Research

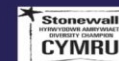
- A research that **utilise a systematic methodological approach to address business management issues.** In other words, you would be conducting a research that would have an impact on organisational dynamics

(Professor David Denyer of Cranfield University School of Management.



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Research Paradigm and Philosophy



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Paradigms

- A paradigm is simply a **belief system** (or theory) that guides the way we do things, or more formally establishes a set of practices. This can range from thought patterns to action.
- A research paradigm is a framework containing all of the commonly accepted views about a subject, a structure of what direction research should take and how it should be performed.

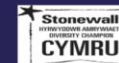
From: <https://explorable.com/what-is-a-paradigm>



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Paradigms

- Disciplines tend to be governed by particular paradigms, such as:
 - **positivism** (e.g. experimental testing),
 - **post positivism** (i.e. a view that we need context and that context free experimental design is insufficient)
 - **constructivism** (i.e. each individual constructs his/her own reality so there are multiple interpretations. This is sometimes referred to as interpretivism). Needs substantial consensus. (1960s)
 - **critical theory** (e.g. ideas in relation to an ideology - knowledge is not value free and bias should be articulated) (1980s, postmodernity)



The Objectives of a Research Paradigm

- Filstead (1970): a paradigm accomplishes the following four objectives:
 1. It serves as a guide to professionals in a discipline, **to highlight important problems and issues confronting the discipline.**
 2. It facilitates **development of explanatory schemes** (i.e., models and theories) which can place these issues and models in a framework.
 3. It **establishes the criteria for the appropriate ‘tools’** (i.e., methodologies, instruments, and types and forms of data collection).
 4. It provides an epistemology in which the preceding tasks can be viewed as organising principals for carrying out research in a discipline. **Paradigms not only allow the discipline to ‘make sense’ of different kinds of phenomena but also provide a framework for identifying that these phenomena exist in the first place.**



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The Four Research Paradigms

- According to Guba & Lincoln (1994), the four categories of scientific paradigms are Positivism, Critical theory, Constructivism, and Realism, each comprising of:

1. **Ontology**, i.e., the theory or study of existence (being). For example, ontological assumptions in the conduct of inquiry within a paradigm might specifically characterise the nature of reality. The ontology question asks: *what is the form and nature of reality and what is there that can be known about it?*
2. **Epistemology** refers to the relationship between the reality and the researcher. The epistemological question asks: *what is the nature of relationship between the inquirer and the external world?*
3. **Methodology**, i.e., a procedure by which knowledge (reality) is to be generated. The methodological question asks: *how can the researcher approach whatever*
 - *can be known about reality?*

Ontology

- Ontology is what **exists** and is a view on the nature of reality.
- Are you a **realist**? You see reality as something 'out there', as a law of nature just waiting to be found ?
- Are you a **critical realist**? You know things exist 'out there' but as human beings our own presence as researchers influences what we are trying to measure.
- Or, are you a **relativist** ? You believe that knowledge is a social reality, value-laden and it only comes to light through individual interpretation



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Epistemology

- Epistemology is our **perceived relationship** with the knowledge we are un/dis/covering. Are we part of that knowledge or are we external to it?
- Your view will frame your interaction with what you are researching and will depend on your ontological view. Your approach, for example, will be objective if you see knowledge governed by the laws of nature or subjective if you see knowledge as something interpreted by individuals.



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Examples of paradigms	Positivism	Post positivism	Interpretivism / constructivism	Critical theory
Ontology	Realism	Critical realism	Relativism	Critical realism
Epistemology	Objective	Objective	Subjective	Subjective
Methodology	Experimental/ structured measurement	Modified experimental/ structured measurement	Case study, Ethnography, grounded theory	Action research Dialogic
Method	Questionnaires, Experiment	Questionnaires, Experiment	Open ended questionnaires, Qualitative data.	Interviews, focus groups, communities, organisations
Example Water company research pollution	Laboratory Chemical experiment dissolved solids	Locationally considered chemical experiments	Case study of the company and attitudes to pollution/profit	Action research in communities to include stakeholders / workshops



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Research Paradigm and Quantitative Research

- The notion of research paradigm implies that “a scientist will normally work within a theoretical framework – a paradigm – that determines the problems that are regarded as crucial, the ways the problems are to be conceptualised, the appropriate methods of enquiry, the relevant standards of judgement, etc” (Kuhn, 1962, cited in Philips, 1987, p.205).



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Strategies and Methodology

○ **Methodology** refers to how you go about finding out knowledge and carrying out your research. It is your strategic approach, rather than your techniques and data analysis (Wainright, 1997). Some examples of such methods are:

○ the scientific method (quantitative method),

○ ethnographic approach, case study approach, (both using qualitative methods), ideological framework (e.g. an interpretation from Marxist, Feminist viewpoint), dialectic approach (e.g. compare and contrast different points of view or constructs, including your own).



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Video

Complex Research Terminology Simplified: Paradigms, Ontology, Epistemology and Methodology

<https://youtu.be/8xvpxBVCo0c>



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Research design begins with theory.

- *“A theory or model proposes relationships between abstract concepts and allows for generalizations based on individual situations and facts.”* (Burns, 2008, p. 70)



Research Classification

- Research type:
 - **Exploratory** - focuses on the discovery of ideas and insights as opposed to collecting statistically accurate data.
 - **Descriptive** - conclusive in nature due to its quantitative nature. It is preplanned and structured in design so the information collected can be statistically inferred on a population.
 - **Causal** - is quantitative in nature as well as preplanned and structured in design. It differs in its attempt to explain the cause and effect relationship between variables.
- *There is an expectation that quantitative research for a Doctoral Degree would include causal research.*



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Types of research studies

- Exploratory Studies
- Descriptive Studies
- Correlational Studies
- Experimental Studies



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Research Classification cont.

- Data Sources
 - Primary - collected for this problem
 - Secondary - collected for another problem, but useful to this.
- Type of data
 - **Quantitative - information that can be summarised by numbers**
 - Qualitative - in-depth, open-ended and unquantifiable



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Research Classification cont.

Use of secondary data



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Why do many researchers use secondary data ?



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Activity 1

Evaluating secondary sources – Example

a. Family and Household, 1996-2023

- <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/datasets/familiesandhouseholds/familiesandhouseholds/current>

(Source : Office for National Statistics)

b. Outbound travel and tourism

- [Overseas travel and tourism, monthly - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/economy/outputinproduct/outputinproduct/articles/overseas-travel-and-tourism-monthly/1-1-2016)
- (Source : Office for National Statistics)



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Q&A !



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Thank You for your listening



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