



Prifysgol Cymru
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University of Wales
Trinity Saint David

DSAW 6003 / 7003 Research Methods for Work-Based Learning

Day 1: Overview; Research Methodologies; Ethics

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Trawsnewid Addysg; Trawsnewid Bywydau
Transforming Education; Transforming Lives



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Introductions!



Aims for today (Day 1)

1. Provide an overview of the module and assessment.
2. Explore Research methodologies and methods in relation to work-based learning
3. Introduce related key topics, including ethics

Aims, day 2 (21.6.16)

- Review & recap
- progress with assignment
- Consider examples
- Discuss ways forward

MODULE AIM

- To develop critical awareness of the main issues in undertaking research in work-based settings

NB: this module is not the same of the 'Work-Based Research Project'!

MODULE OUTCOMES

- Upon the successful completion of this module, the learner should be able to demonstrate the ability to:
 - *critically evaluate* a selected range of *methodological approaches* appropriate for research in work-based settings;
 - identify and evaluate a range of research *techniques* to gather data from complex work-based settings.

ASSESSMENT

- **Portfolio – L7:** 4000 words or equivalent
- **Portfolio – L6:** 3500 words or equivalent
- **Assessment Component 1:** Short report to explain how research could be personally and professionally relevant (20%; 800 words)
- **Assessment Component 2:** Critical evaluation of potential methodological approaches, research strategies, domains and techniques to work-based research. (80%; 3200 words)

Your experiences of research

Do you have any previous experience of being involved in any research, either as a participant or researcher?

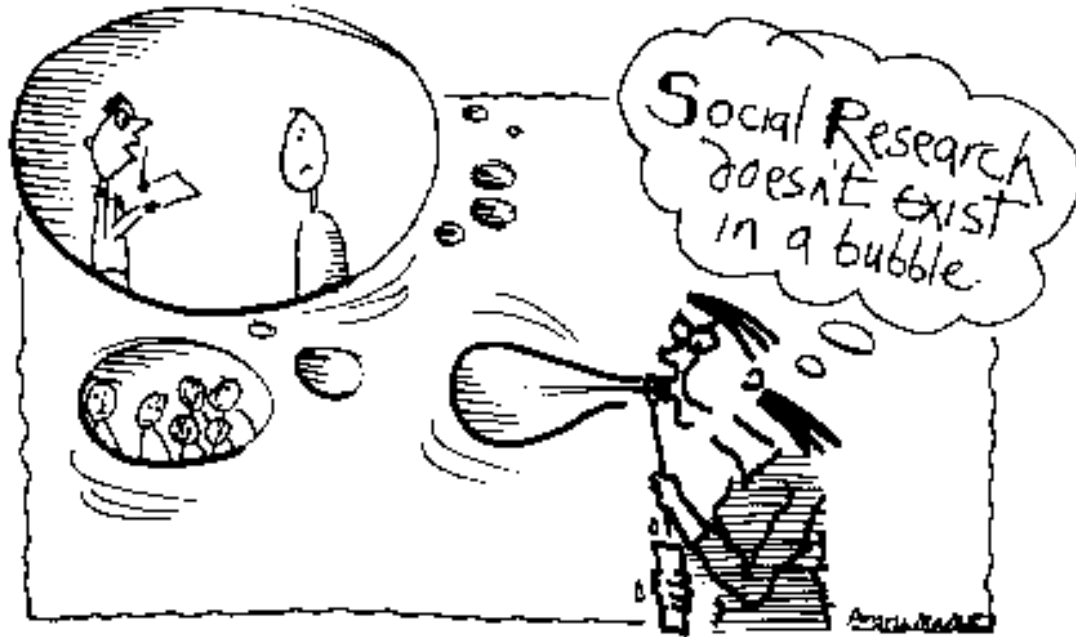
- Where?
- When?
- What?
- How?
- Why?

‘Research’ in this module

- Our focus is on **primary research**: ie. research that generates new information
- This is not the same as **Secondary research**, which involves finding information/data produced elsewhere (though this is important, also)

Real world enquiry

‘Social research does not exist in a bubble’
(Bryman 2001)





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A background to methodology and methods

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Thinking about research: a scenario

Two researchers are instructed to carry out research within a large hospital ward:

- **Researcher X** has been asked to focus on patient experience
- **Researcher Y** has been asked to focus on efficiencies related to dispensing of medicines



Discuss how each researcher might approach their research tasks

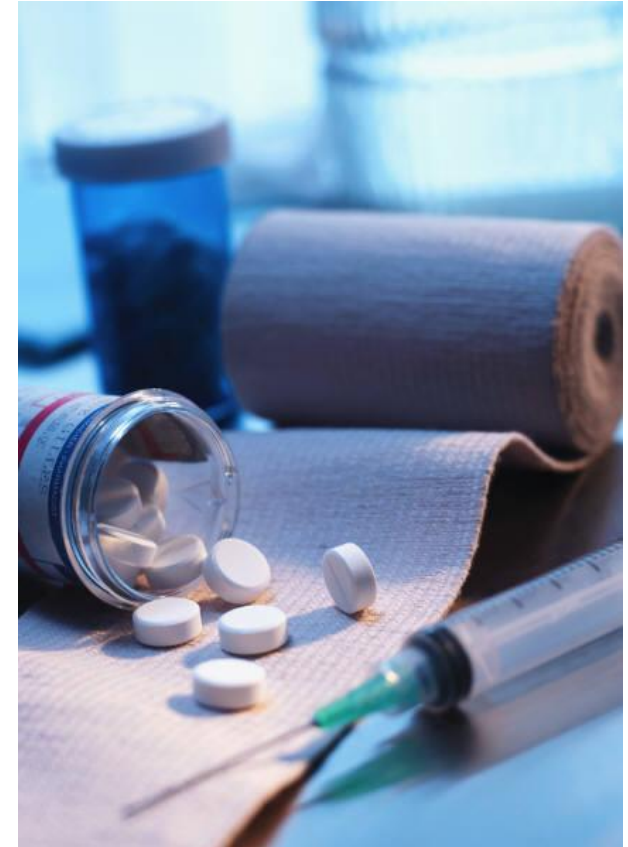
Researcher X (patient experience): what will be the approach?

- Researching people
- Might wish to interpret what people say, do, their emotions
- Might believe that people's experiences depend on other people around them
- May look for an explanations, or 'theory'
- May wish to use methods such as interviews, observations



Researcher Y (efficiencies of dispensing): what will be the approach?

- Researching medicines, routines, financial aspects
- Not really interested in opinions, emotions, people
- Focussing on 'objects' and what happens to them
- May have theories to prove/disprove
- May wish to count, measure, analyse questionnaires



Activity

Identifying research methods



What sort of research methods might be used?

QUALITATIVE

QUANTITATIVE

surveys

observation

questionnaires

interviews

experiment

recordings

measuring



Some Research methods

Qualitative

- Interview
- Dialogue /Narrative
- Focus group
- Observation
- Video, audio recording
- Case study
- Action research
- Diary/ log

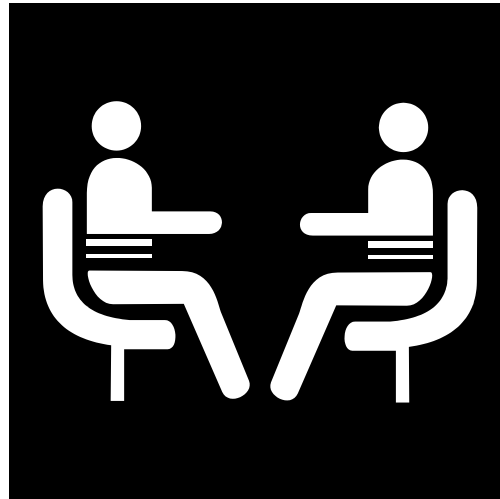
Quantitative

- Questionnaire/ survey
- Structured interview
- Experiment
- Content analysis

Data

- Research generates information or '**data**' (NB: plural word)
- **Primary (empirical) data**: data newly-generated by research (directly observed/recorded by researcher)
- **Secondary data**: data generated in the past/ by someone else
- **Quantitative data**: numbers, measurements etc
- **Qualitative data**: non-numerical data in a variety of forms

More on **qualitative** methods



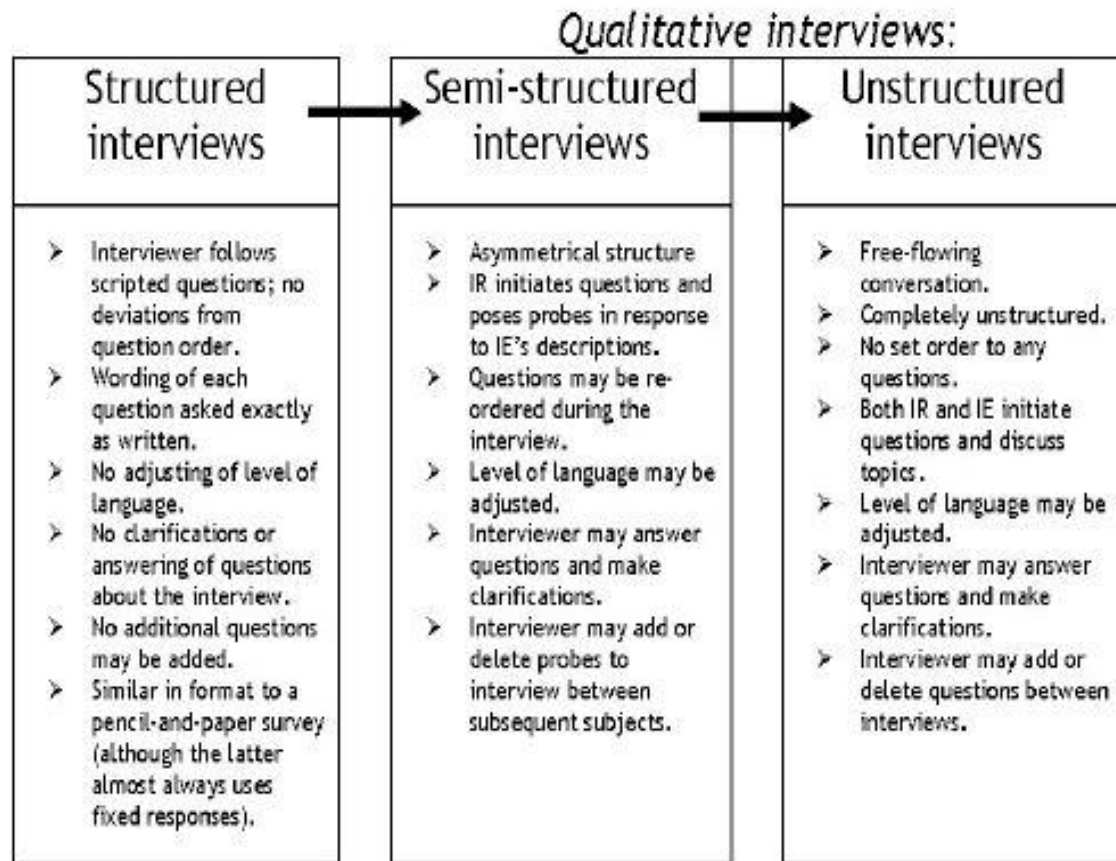
- Observing and recording what people do (ethnography)
- Discussion/ dialogue with individuals or groups
- Case Studies: all material relating to a specific case



- **Action Research:** changing something (carrying out an 'intervention'), observing & evaluating impact
- **Interview:** researcher asks questions to individual: open questions provide richer feedback/explanations. May be recorded
- **focus groups:** researcher provides discussion points to group. May be recorded



Interview types



IR = Interviewer; IE = Interviewee

Table adapted from Berg, B. L. (2004). *Qualitative Research Methods for the Social Sciences* (5th ed., p.79) Boston: Pearson.

Activity

See hand-out



More on **quantitative** methods



Measuring

- **Variables** such as height, weight, number, time are straightforward to measure
- Other variables might be **concepts** (eg. 'self esteem'; 'happiness'; 'satisfaction')- harder to measure
- Use '**indicator**' such as **Likert Scale**



Experiment



- There is an experimental group (randomly assigned) in which a variable (**independent variable**) is manipulated, and **dependent variable(s)** measured
- There is a **control** group in which there is no manipulation
- Researchers need to be aware of **confounding variables/ experimental artefact**

Surveys

- Use of questionnaires/interviews in **large** groups
- Generally relate to quantitative methodological approaches
- an important method in social sciences research
- Could be administered online, by post
- Often generate large amounts of data

Have you encountered any form of surveys?



Questionnaires

- **Self-completion questionnaire:** a series of questions that individuals complete themselves
- Questions may be '**open**' (any answer; could therefore have qualitative approach) or '**closed**' (involving specific options- eg. Likert Scale; approach more quantitative)
- **Structured interview:** interviewer asks specific questions

What are the pros and cons of 'self-completion' versus 'interview'?



Activity

See hand-out

Do you think you might use questionnaires in some way in future research? What sort of questions and approach might you utilise?



What is the difference between ‘method’ and ‘methodology’?

Methodology

- o The theoretical framework that outlines the rules to follow in a study . The two main types are **qualitative** and **quantitative**.

Method

- o The actual tools/steps taken by which you conduct research into a subject or a topic. There are many different methods to choose from

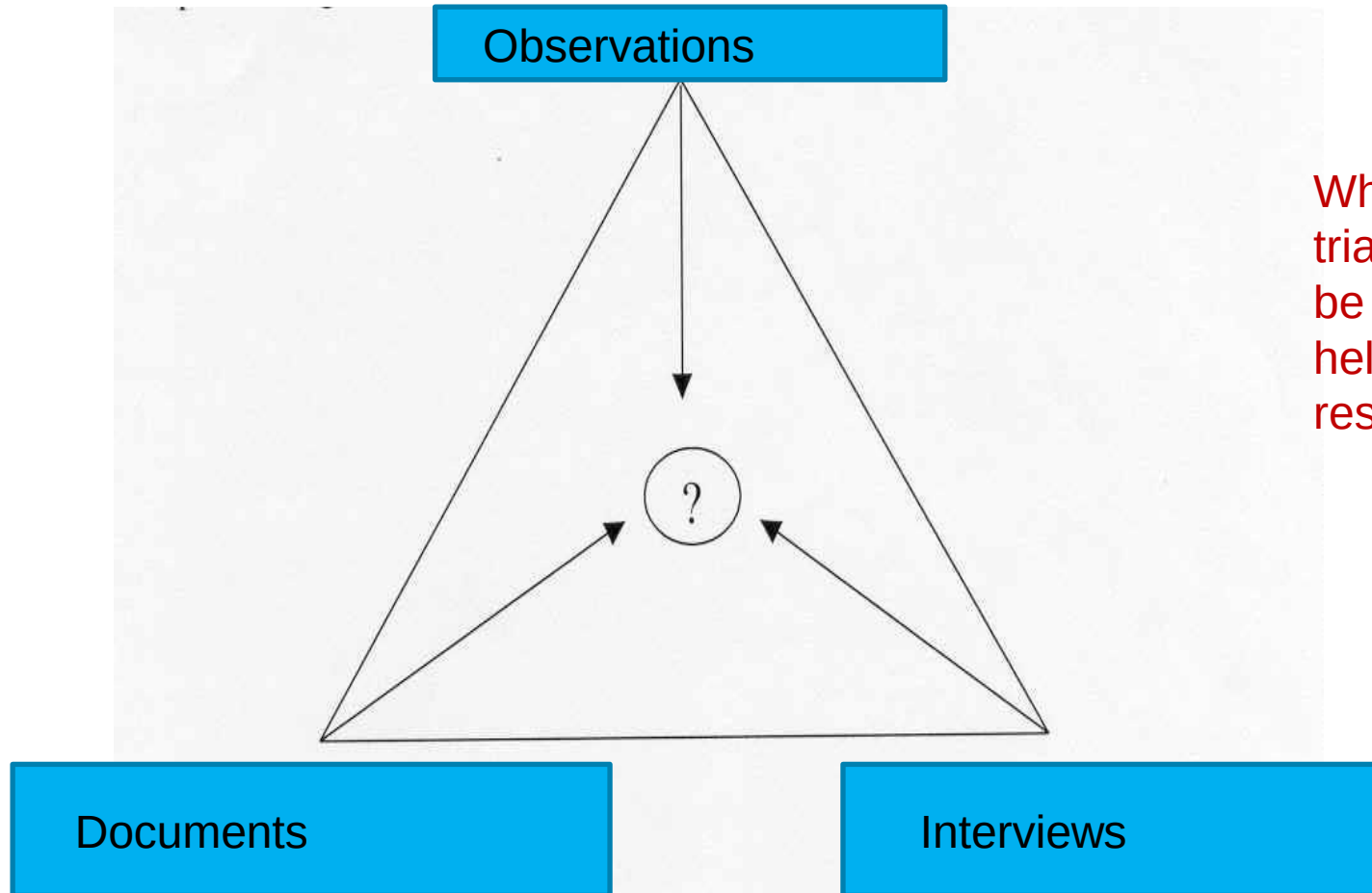
Two main methodological approaches

Quantitative	Qualitative
Data focuses on 'quantities' (numerical), eg. measurements of height, time; numbers of people, etc	Data collected have 'qualities' that are predominantly not numerical eg. narrative, observation, video, case studies
Approach tends to look for cause and effect; testing theory ('deductive')	Approach tends to look for meaning, experience; developing theory ('inductive')

Mixed Methodologies

- Some researchers will use *either* qualitative or quantitative methodologies
- Some researchers will use ‘**Mixed Methodologies**’ (or ‘mixed methods’), ie. using methods of each type
- Each approach needs to be carefully justified

Triangulation



Why can triangulation be very helpful in research?



Re-cap: can you write a sentence on each of these Research methods ?

Qualitative

- Interview
- Dialogue /Narrative
- Focus group
- Observation
- Video, audio recording
- Case study
- Action research
- Diary/ log

Quantitative

- Questionnaire/ survey
- Structured interview
- Experiment
- Content analysis

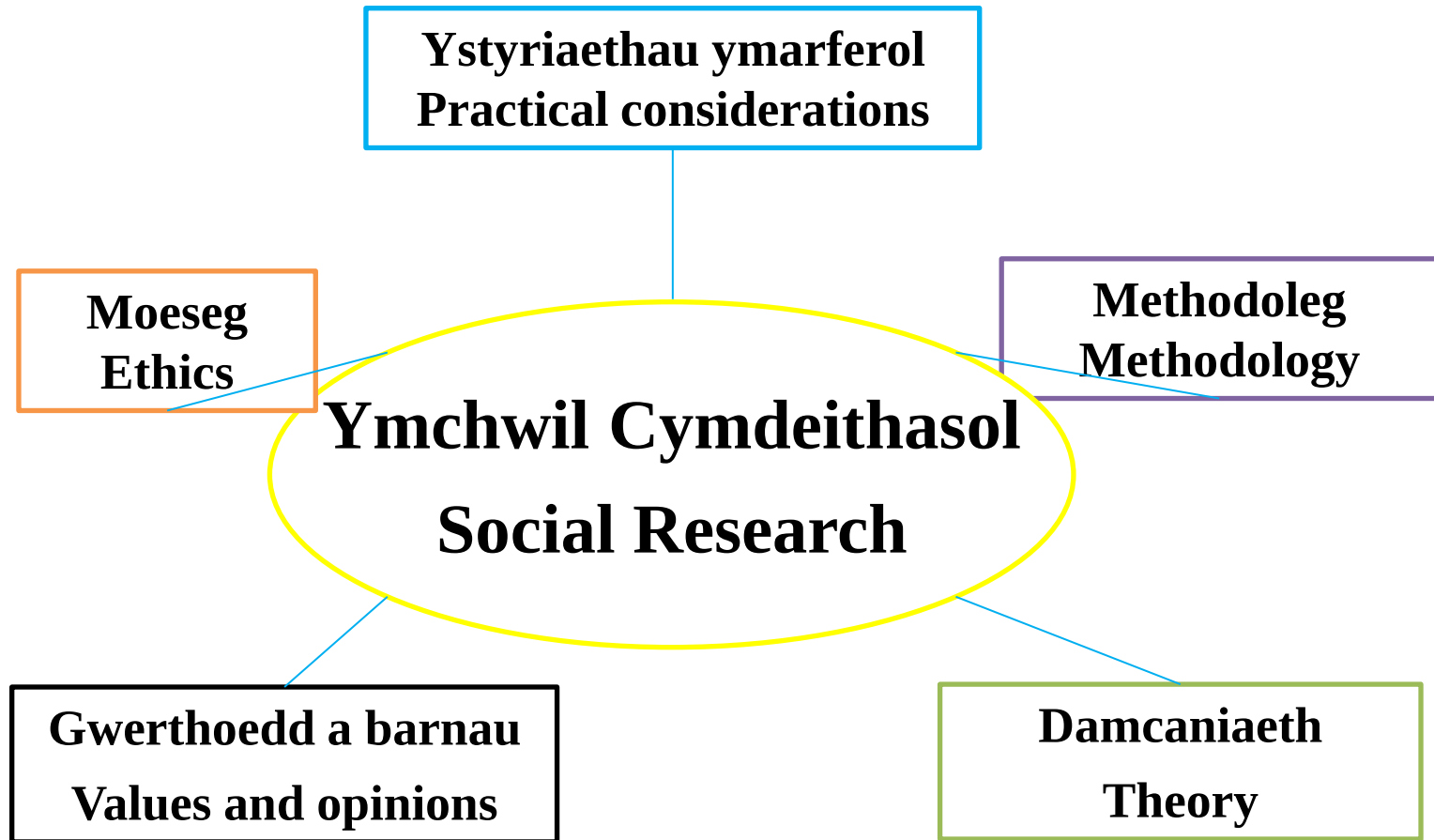


Activity

See hand-out: fill in the gaps!



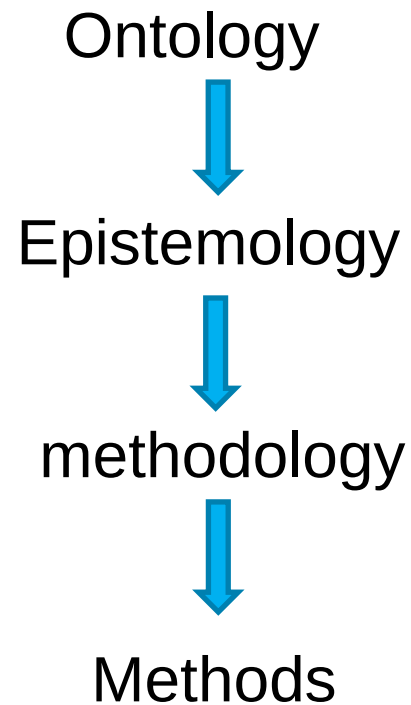
Methodology is just one aspect of research!



Values and opinions

- Point of view about how to define & explain 'being' or **reality**. This is:
ONTOLOGY
- View about what is regarded as valid **knowledge** and how it is created. This is:
EPISTEMOLOGY

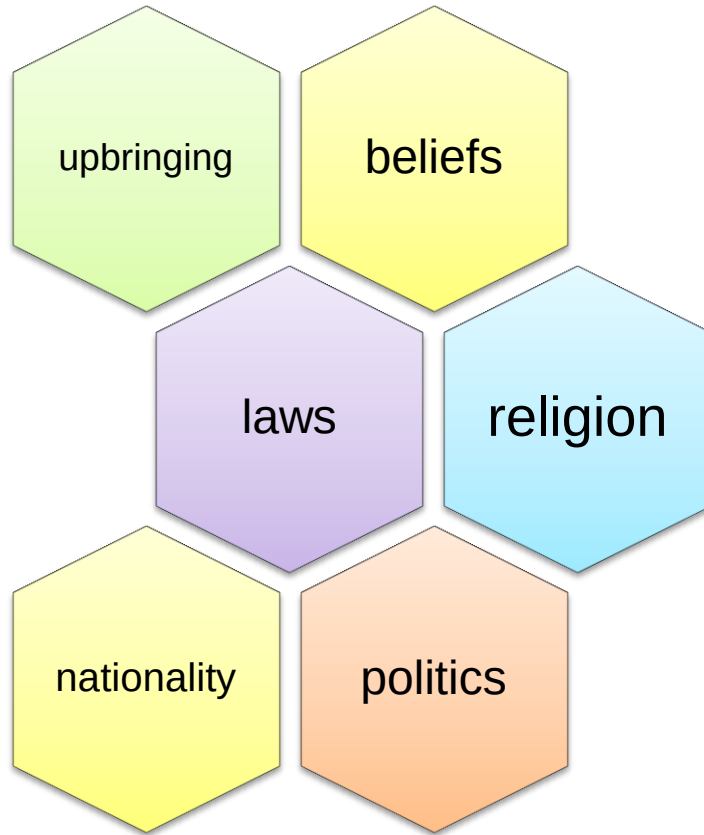
Ontology influences Epistemology, and both influence methodology



More about 'Ontology'

- The word 'Ontology' comes from the Greek (onto = being; logia = study)- i.e. it is the study of 'being' (branch of metaphysics)
- A person's 'ontology' is the answer to questions such as:
 - 'What is reality?'
 - 'What can be said to exist?'
 - 'What is a thing?'
 - 'What is existence?'

Ontology: influences



Several factors may influence a person's ontological standpoint

Examples?

Two important ontological positions are:

Objectivism	Subjectivism
Reality is objective, and independent of other external /social factors	Reality is subjective, and cannot be considered independently of experience, viewpoints, social factors

More about 'Epistemology'

This relates to 'theory of knowledge' and what is regarded as valid knowledge and how it is created

Knowing *how*

• Knowing *that*

Senses and
fallibility

Truth/belief

Some epistemological examples:

- Crows are birds (how do you know?)
- It is raining (how do you know?)
- How do you find the answer to $(346 + 567) \div 23$?
- Can you swim across the river? (I know I can; I believe that I can)
- What colour is the letter-box? (Are you sure?)

Two important epistemological positions are:

Positivism

there is a positive, objective reality that can be observed and measured using the senses following a scientific approach ('the scientist'!)

Interpretivism

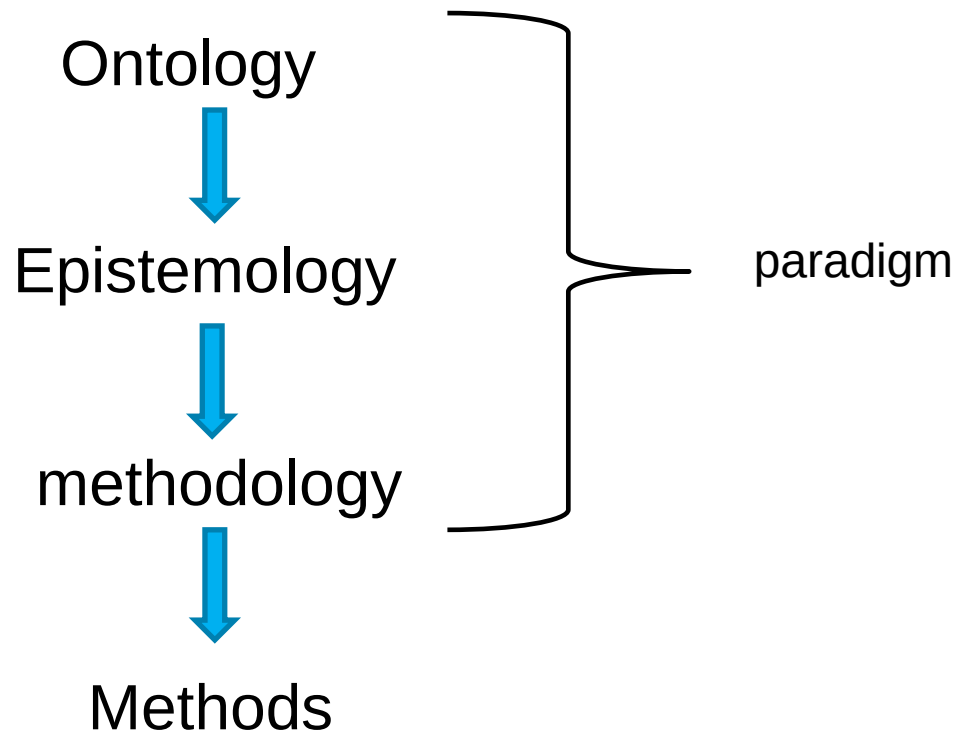
people and their institutions are fundamentally different from the natural sciences, and they need to be understood and interpreted ('the detective'!)

What is a 'research paradigm'?



- A viewpoint, or way of approaching, research
- Incorporates particular ontologies & epistemologies, methodologies
- Influences selected methods

A researcher's 'paradigm' influences their methodology and methods!



Activity

See Hand-out



Key terms (and two parallel 'strands')

Ontology	objectivism	subjectivism
Epistemology	positivism	Interpretivism
Research methodology	quantitative	qualitative
Research method	Eg. survey	Eg. narrative

What are the pros and cons of quantitative vs qualitative research?

Quantitative approaches	Qualitative approaches



Example 1

A 1990s study focussed on an estate in east London. According to official statistics, this estate experienced high levels of crime.

To investigate local people's perception of the situation, estate residents were identified as study participants, and were observed over periods of time. Semi-structured interviews were also carried out.

It was found that residents did not believe that they lived in a high crime area

- Which methods were used in this study?
- What type of methodology is evident?

Observations (ethnography)
and semi-structured
interviews;
Qualitative methodology

Example 2

The National Child Development Study is based on 17,000 children born in the UK in the week 3-9 March, 1958. Different types of data have been collected at intervals from these individuals, including physical and mental health, income and occupation. Data has been collected to date when individuals were of the following ages :
7, 11, 16, 23, 33, 41, 46.

What sort of data has been collected in this study, and what sort of methodologies used?

Quantitative & qualitative data;
Mixed methodologies (ie. both quantitative and qualitative methods)

Summary

- Research involves views, values, opinions (overall, a 'paradigm')
- These inform methodologies and methods
- Are you able to begin see the links to your own practice?

Research Methods – you tube video links

<http://www.youtube.com/watch?v=ddx9PshVWXI>

<http://www.youtube.com/watch?v=4oZAIUGFTOk>

Some further points about work-based research

Research as an extension of practice

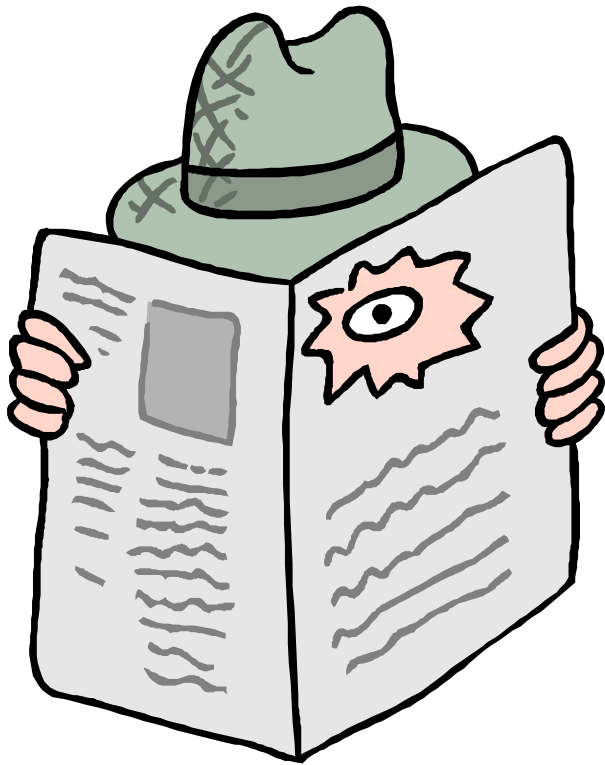
- Applied research
 - Participatory research
 - Action Research
- Practitioners: ownership of the research process
- Democratic
- Reflection: engenders personal or organisational change.

Research as an extension of *your* practice

- Is there a problem you need to solve?
- Is there an aspect of practice (your or that of others) that needs to improve?
- Do you need to evaluate a new initiative?
- How could research be personally and professionally relevant to you?



The Insider-Researcher?



- What are the issues associated with being an 'insider researcher'?
- What are the advantages and/or disadvantages?

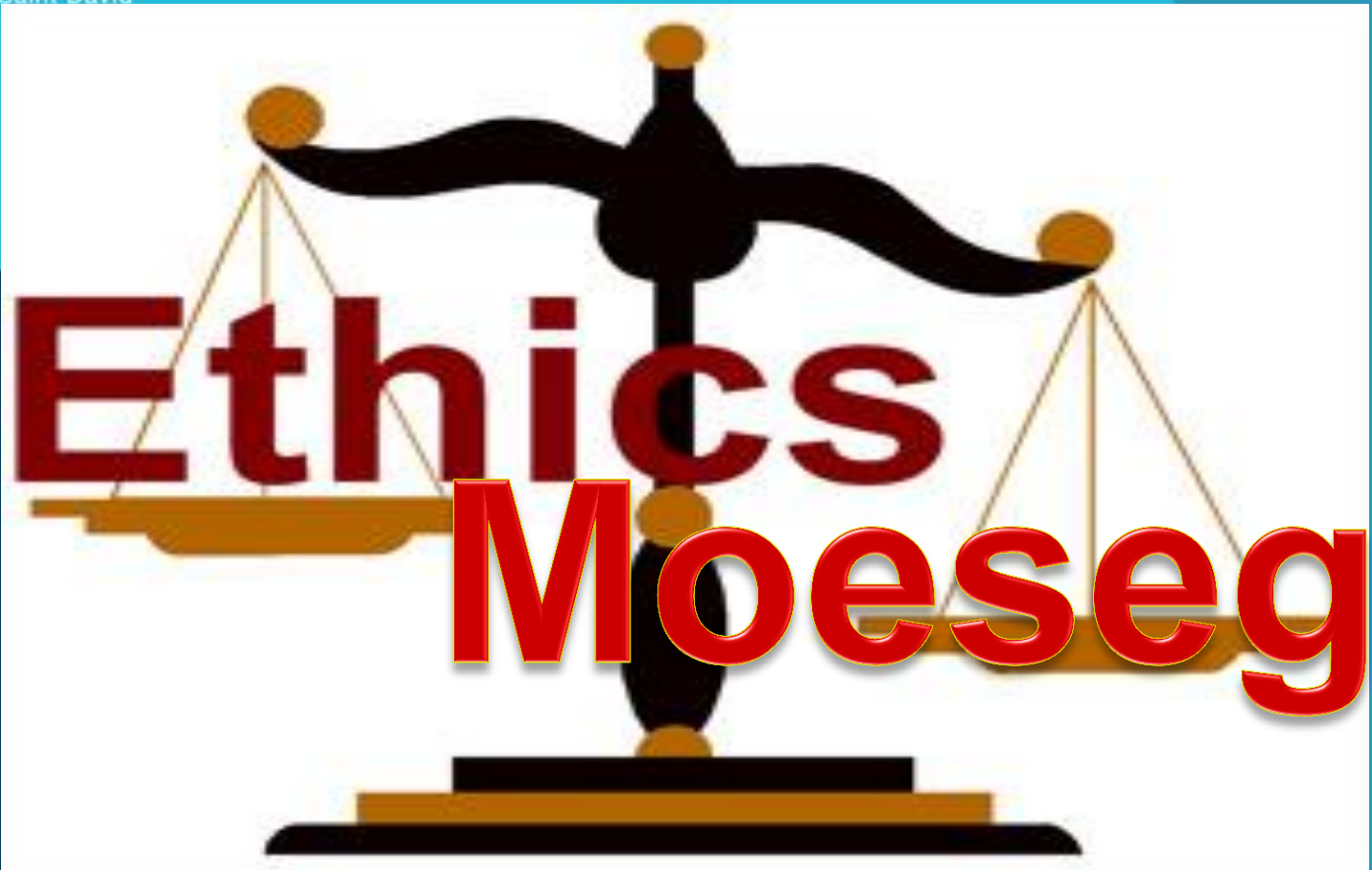
Activity

See hand-out





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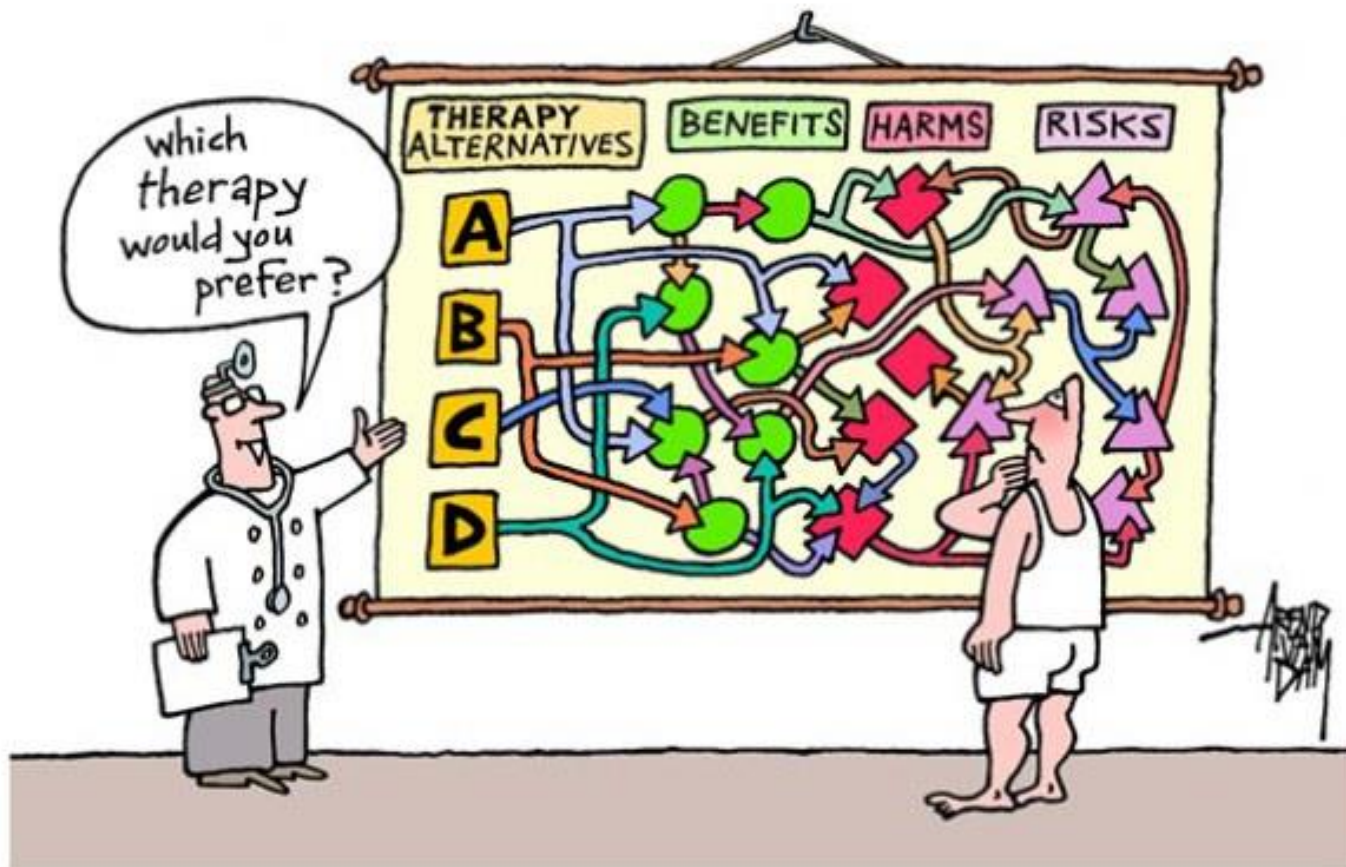


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<http://www2.carleton.ca/psychology/ethics/>

What are the ethical considerations linked to each of the following pictures?



informed consent

[Cartoon](#) from the Cagle Post by [Arend van Dam](#)



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Activity

- Complete Hand-out on Ethics 
- See also:
 - Power point on ethics (Moodle)
 - Ethical Guidelines (Moodle)

Resources

- Resources to support the module are available on **Moodle** .
- Some recommended reading (see further slides)
- UWTSD Library has a very good selection of research methodology / methods books available hardcopies and e-books.
- There are also some good resources available on-line

UWTSD Home / The University / Professional Services / Library and Learning Resources

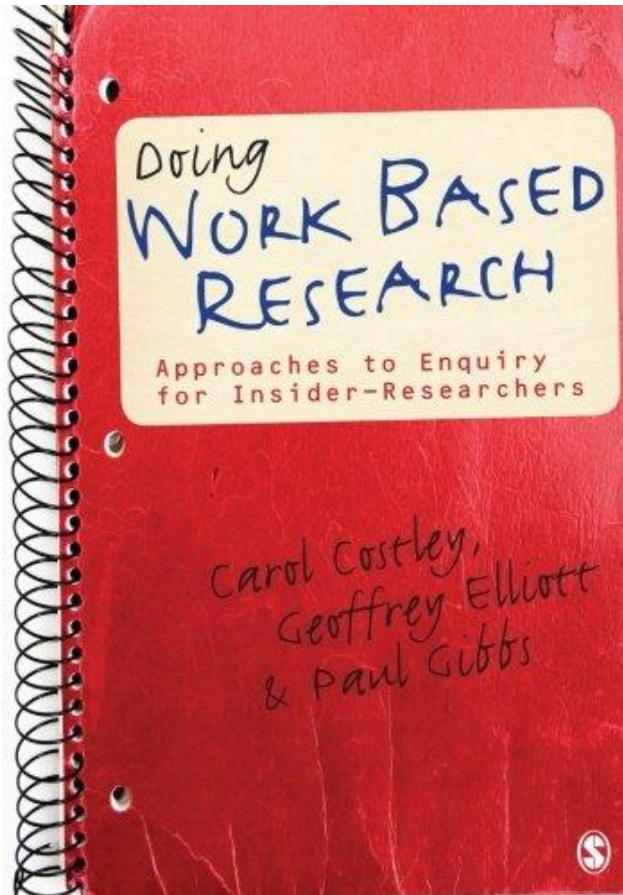
Library and Learning Resources

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The Library and Learning Resources section of the University of Wales Trinity Saint David website provides a comprehensive list of resources available to students and staff. The page includes links to the Library and Learning Resources Homepage, News, Catalogue, Our Libraries, Library Guide, Online Library, and Subject Guides. A photograph of a stack of books, including titles like 'Strategic Management' and 'Global', is displayed next to the navigation menu.

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- [Costley](#), C; [Elliott](#), C,G; [Gibbs](#), P (2010) ***Doing Work Based Research: Approaches to Enquiry for Insider-Researchers.*** London: Sage
- (eBook available)



The good research guide : for small-scale social research projects

Author: [Martyn Denscombe](#)

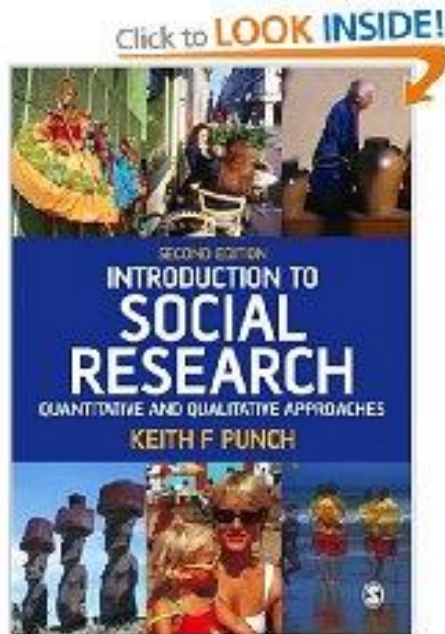
Publisher: Maidenhead : Open University Press, 2007.

Series: [Open UP study skills.](#)

Edition/Format:  eBook : Document : English : 3rd ed [View all editions and formats](#)

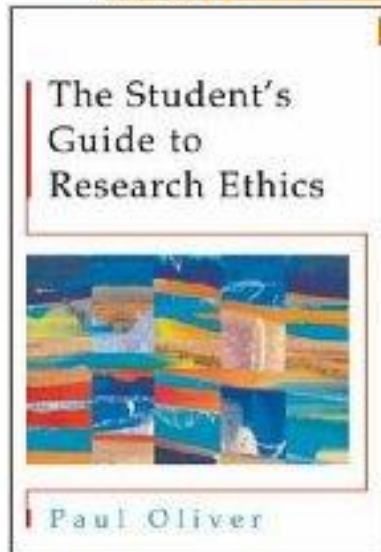
Database: WorldCat

Summary: Written for anyone undertaking a small-scale research project, either as part of an academic course or as part of their professional development, this book provides: an introduction to data collection methods and data analysis; explanations of the key decisions researchers need to take; and, essential checklists to guide good practice.



- o Punch K, *Introduction to Social Research Methods: Quantitative and Qualitative Approaches*, London: Sage, 2005.

Click to **LOOK INSIDE!**



- *Oliver P, (2003)The Students' Guide to Research Ethics, Buckingham: Open University Press.*

What to do next

- Between now and our next meeting, we would like you to focus on the first part of the assignment, which is to:
- *Prepare a short report to explain how research could be personally and professionally relevant: (800 words, L7; 700 words, L6).*
- Please bring this to the next session, for discussion with the group. If you want to do more than this, that is fine.

Timetable

To do	Date
Day 2 session	21.6.16
Submit 1 st draft of assignment for feedback	29.7.16
Feedback	12.8.16
Final submission deadline	2.9.16

Summary of Day

- An introduction to the module and assessment
- An introduction to social research methods
- Research as an extension of practice
- Ethics
- Next steps for your study

Discussion, Questions?



Contact Details

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