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Research Workshop
GP Registrars



What is Research?



Definition 1:

- Research can be viewed as the means by which you can **transform** ideas, hunches and **questions** (sometimes called **hypotheses**) into **scientific knowledge**.

Definition 2:

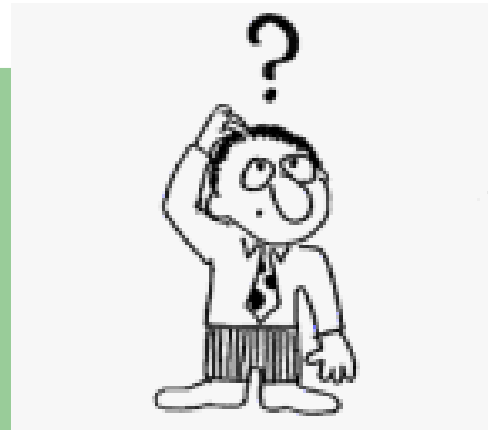
Research is a **process** of **systematic** investigation of a subject for the purpose of **adding to the body of knowledge** about that subject

Distinguishing Audit from Research

- ① Research evaluates practice or compares alternative practices, with the purpose of contributing to a body of knowledge. It asks the question “What should we be doing?” It is peer reviewed, intends to publish the findings, can be generalised.
- ② Audit assumes that standards, guidelines or evidence exists, and asks, “Are we doing what we should be doing?” It is the comparison of current practice against previously agreed standards. Audit aims to influence activity at a local level

Source Research Governance Framework - a users' guide NHS – Leeds
<http://www.leeds.ac.uk/medicine/psychiatry/research/govern/menu.htm>

Research Questions



Selecting a topic

- Get ideas from others
- Interest
- Worthwhile
- Consider resources
- Consider feasibility/breadth
- Refer to literature/'experts'

[<http://www.lib.nus.edu.sg/lion/s/rtopic.html> Extracted from Troyka, Lynn Quitman. 1999. *Simon & Schuster handbook for writers*. Upper Saddle River, NJ: Prentice Hall. p. 508-509.]

How Do Ideas Turn Into Questions

- Research is “organised curiosity”
- Brainstorm around research idea
- Pick interesting, important and answerable subtopic
- Reduce to a simple (not simplistic) sentence

Questions not suitable for research

- Questions of definition only
- Questions of diagnosis
- Metaphysical/philosophical questions
- Unethical questions
- Questions to which the answer is already known
- Questions that are too specific
- Questions that are too broad or too large

Some potential research questions

- Are home visits worthwhile?
- Why do some patients with asthma smoke?
- Is this rash eczema or tinea corporis?
- What is the best treatment for chlamydia?
- Why do I feel reluctant to go to work on Fridays?
- Do single mothers consult more frequently than mothers in a stable relationship?
- Why does Mrs. Hunt not leave her violent husband?
- Too broad
- Researchable
- Clinical question
- Researchable but answer known
- Too specific/personal
- Researchable but answer known
- Too specific/personal

Bradley Colin (1997). How to identify a good research question and get started. In Carter Y, Thomas C (eds): *Research methods in primary care*. Oxford, Radcliffe Medical Press, 1997, pages 9-17.

Selecting/Refining a Topic

A thick, dark blue horizontal bar with rounded ends spans across the width of the slide, positioned below the title.

Refining your topic

- Read through background information
- Start making a list of key words
- Write out your topic as a statement and select the main concepts
- Start making a list of words to describe your topic
- http://library.ucsc.edu/ref/howto/choose_topic.html

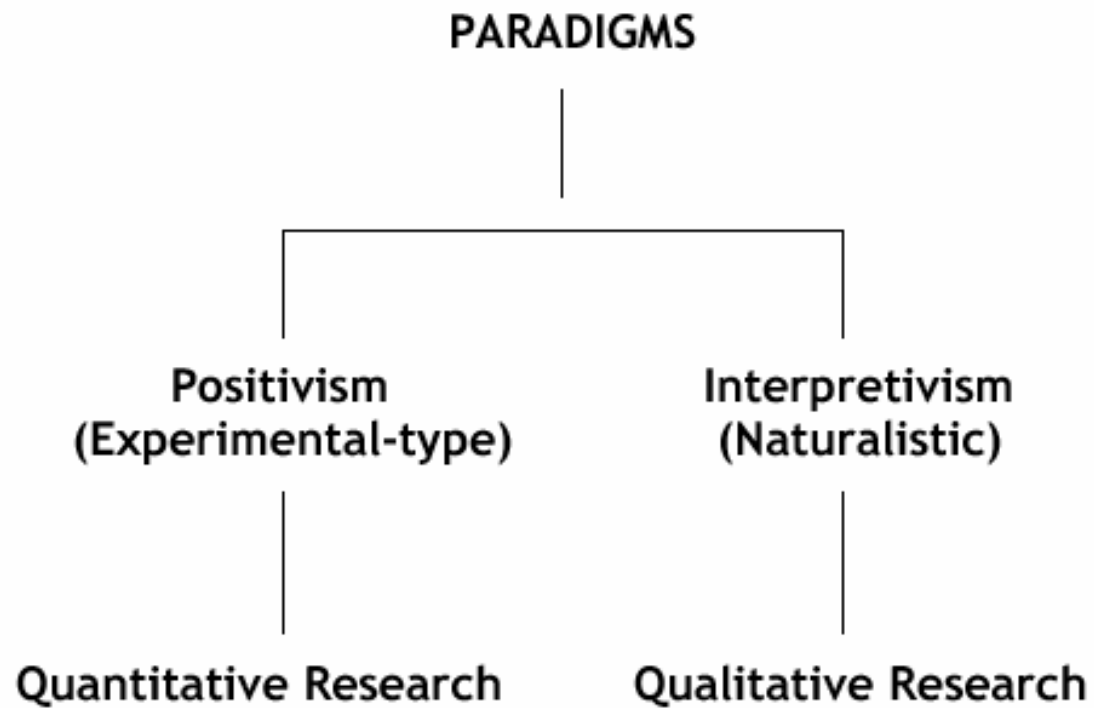
Refining your question

- Is the scope of your question appropriate – it's not too immense and not too narrow?
- Is your question answerable in the time and with the resources that you have access to?
- Can you find sufficient timely information on your question in the library, on the Internet, or through field research?
- Have you worded your question simply, so that you are seeking just one answer, not several?
- Have you worded your question concretely and specifically, so that you understand exactly what you are looking for?
- Is your question of real interest? Does it concern a real issue, about which there is some debate?
- Does your question interest you personally?

Some Useful Websites

- **Cochrane Collaboration**
<http://www.update-software.com/clibng/cliblogon.htm>
- **The Canadian Medical Association**
<http://www.cma.ca/>
- **Turning Research into Practice (TRIP) database**
<http://www.tripdatabase.com>
- **Bandolier**
<http://www.jr2.ox.ac.uk/Bandolier>

Figure 1: Philosophical Paradigms Underpinning Approaches to Research



Positivist - experimental

- Reality (including human reality) is observable and can therefore be measured.
- The best way to measure reality is through objective means in which the researcher is separated from the subject of study.
- Research methods typically include experimentation and objective observation of subjects in laboratories or standardised settings.
- There are two types **experimental** (researcher controls everything) and **observational** (researcher observes but does not manipulate the environment)

Which means that.....

- The researcher has a theory or hypothesis and needs to objectively test it (as in a therapeutic trial)
- The researcher wants to find out (objectively) what is going on (as in a cross sectional survey)
- The researcher wants to remove sources of bias (as in randomised controlled trials)
- The researcher wants to generalise from the particular setting of her research to other settings and contexts

Interpretivist (naturalistic)

- Reality is relative and is not always measurable using objective means.
- In the study of humans, societies and groups it is essential to build knowledge from the accounts of people themselves.
- Research methods include interviews, focus groups, documentary analysis and observing/interacting with people in their natural settings and environments.

Which means that.....

- The researcher wants to understand the social world from people's own perspective
- The researcher interprets the responses of the subjects and regards the findings as context specific
- The researcher generates textual or visual rather than numerative data

Considerations

- Is the project feasible, given the timeframe available?
- Can you link with other or existing projects?
- What resources do you need?
- Ethical requirements?
- Data access requirements?
- Does the project involve multidisciplinary input?
- Is the topic of clinical importance?
- Output: presentation and/or publication?

ICGP website

- Research listing
- Library facilities

- Research articles and seminar material