

Research Design & Analysis

Quality in Research

What is a “good quality” research study?

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- How would a funding body judge something as good quality?
- How would a dissertation supervisor/external examiner judge something as good quality?

Scientific Quality

Relevance of the question to the 21st Century

- Why is it interesting (to anyone else but you!)?
- Why is it important?

How is it going to add to what we already know?

- How is what you are doing “different” or “new”
- Doing research for no reason is unethical!

What are the potential practical or theoretical implications?

Scientific Quality

Scientific rationale based on appropriate literature and theory

Justification and appropriateness of research design

Ethically robust

Replicable

Achievable (within timeframes, scope, or costs of project)

Designing good quality research

Identifying a good quality research topic....

- Keep an open mind
- Identify key issues and raise questions
- Obtain relevant facts
- Evaluate the findings and form judgements

Consider the type of study

- What type of study do you want to carry out and why?
 - Quantitative?
 - Experimental?
 - Qualitative?
 - Cross-sectional V longitudinal?
 - Issues: re predictions
 - Nb correlation does not equal causation
 - Randomised Controlled Trial?
 - Sufficient numbers/controls in place?

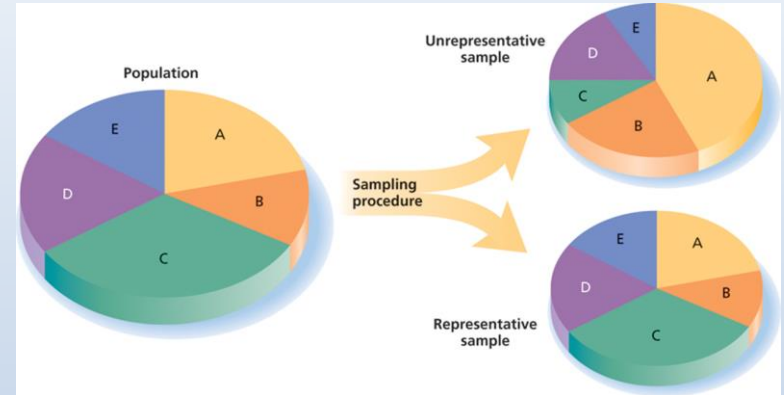
Qual V Quant

- Be wary of drawing conclusions from small qualitative studies
- Qual studies tend to provide an in-depth understanding of a particular issue but cannot be easily generalised
- Qual studies often extremely important if exploring a new/emerging area/issue (can inform future quantitative studies)

Who will you study...and why?

The sample

- Target population?
- Small or large sample size?
- *How representative/generalisable will the results be?*
- *Who will you include/exclude?*
- *(how representative are they?)*



What are you going to find out?

- What are your research questions?

The Data

- What type of data are you going to collect?
 - Qualitative, quantitative, or both?
 - Standardised psychometric scales?
 - Experimental data (reaction times, IATs etc)
 - Tests of models and theories?

Reading for your dissertation idea...

- ‘Thinking is the hardest work there is , which is why so few people engage in it’
- Henry Ford

Key questions when critically analysing a research paper

- What can I learn from this paper
- What are the limits of this paper
- What can I learn from the method that has been used
- What is the 'news value' of the paper?
- What does it add to my/our stock of knowledge?

- What were the key findings?
- How do these relate to the aims of your study i.e., what are the implications of these findings for theory and practice (where appropriate)
- How robust are these findings? Methodological considerations/limitations
- Which theories/literature do the findings provide support for? Which ones do they not support? Why?
- How does each paper inform your own research idea?

Methodological Critique

- How could the study have been done better?
- Do the authors acknowledge the limitations of their work?
- No such thing as a perfect study – even yours!
Learn from how others write about their limitations



A research study can be viewed as a piece of a mosaic – the pattern only emerges when standing and looking at the mosaic as a whole



Synthesising the literature...

- A single piece of research cannot just be considered on its own
- Important to view the piece in its relation to a broader picture
- A research study can be viewed as a piece of a mosaic – the pattern only emerges when standing and looking at the mosaic as a whole
- Your study is just one tiny piece of this mosaic –but it does need to fit!