Research methods for doctoral scholars

Dr Jay Jericho

BCom *Adel*, BEd ProfHons Grad Cert Ed *Tas*, MEc (Hons) DSocSc *Syd*

How to write a winner doctoral thesis series

This presentation is part of the '**How to write a winner doctoral thesis**' series.

Other presentations in this series include:

- How to write a research proposal
- How to plan your thesis chapters
- How to write data analysis chapters
- Writing your literature review chapter
- Grammar advice for doctoral students
- How to write your introductory chapters.

Quality copies of these presentations are available in Acrobat format at:

http://www.collegeprofessor.ca/phd-writing-project.html

jjericho@collegeprofessor.ca

Jay Jericho
✓ Subscribed ⚙ 15
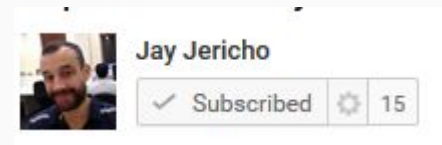
Objective:

This presentation provides an overview of research methods theory that is relevant for doctoral research candidates.

You may collect data, analyse data and write up results at any time. Of course you cannot write up any preliminary results until you have completed at least some data collection activities.

Comprehensive text (518 pages)

Flick, U. (2009). *An introduction to qualitative research*. Sage. <http://dspace.utamu.ac.ug:8080/xmlui/bitstream/handle/123456789/172/LIVRO_Uwe%20Flick%20-%20An_Introduction_To_Qualitative_Research.pdf?sequence=1> Accessed 20 July 2016.

See chapter 8: Research cycle and research process.

The research process is <u>not</u> a linear cycle whereby you progress from from step 1 to step 2 to step 3.

Data collection

↕

Data analysis

↕

Write up results
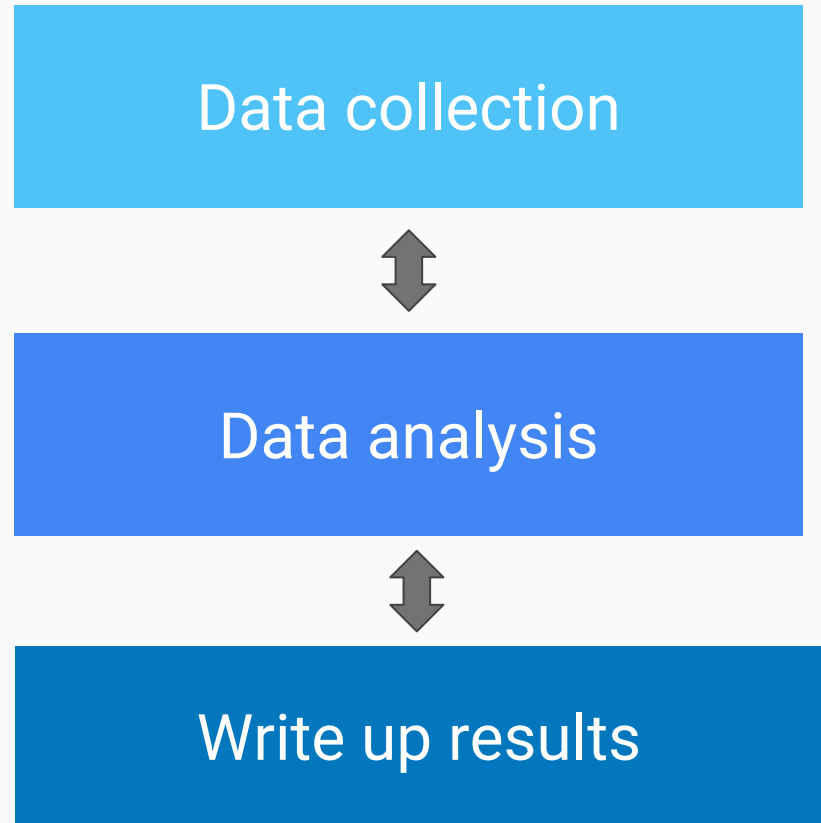
Understanding the difference between qualitative, quantitative and mixed-methods research is a basic prerequisite to pass your doctoral thesis. You must identify and justify your selection of one of these three methodological approaches.

This open-access article discusses the difference between qualitative, quantitative and mixed research. It also offers guidelines to aid you to select the best approach.

Creswell, J. *et al.* (2003), *Handbook of mixed methods in social and behavioral research*, Chapter 1 & 5.

http://media.library.ku.edu.tr/reserve/resfall08_09/CSHS501_JDixon/Week5.pdf
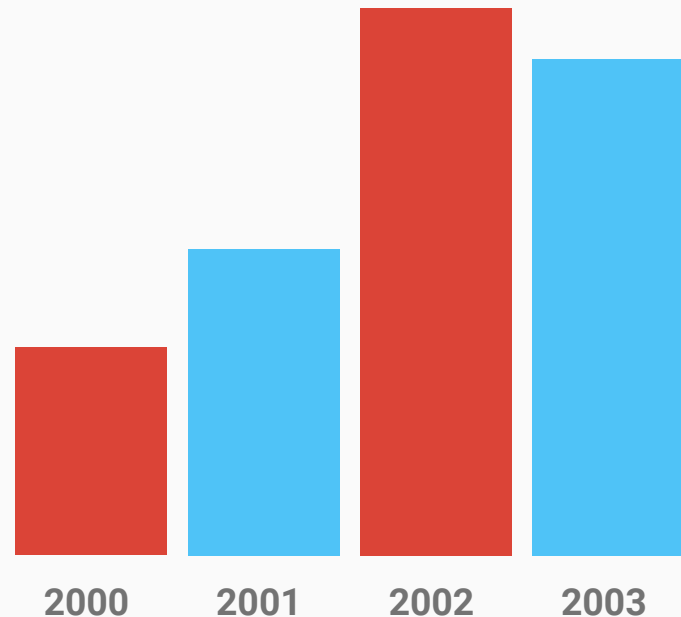
Many students are concerned that their examiner will not accept their paradigm that defines their ontological and epistemological framework.

Yvonna Lincoln   **Michael Crotty**   **Margarete Sandelowski**   **John Creswell**

These four esteemed scholars theorisation of the research paradigm have been cited by thousands of successful doctoral candidates over the past two decades. It is highly unlikely that an examiner would reject citations of these scholars works, especially for those who conduct research in the humanities and social sciences fields. However, you still need to select the correct theoretical framework and justify the suitability of your research paradigm insofar as it is the best match that enables you to pursue your unique research objectives.

Reflexivity

No methodological design is perfect. You must self-identify the weaknesses in your methodological design. You need to show how you have adapted your design to counter these limitations to the best of your ability. You also need to ensure that personal biases do not affect your methodological design.

Guillemin, M., & Gillam, L. (2004), Ethics, reflexivity, and "ethically important moments" in research, *Qualitative inquiry*, 10(2), 261–280.

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.455.4997&rep=rep1&type=pdf

Key terminologies

You should be able to explain these terminologies and offer an example for each. It is not mandatory to use all of these theoretical principles in your thesis. Use this list as a gauge to reflect on understand how well you know the core principles of research methods theory.

Research paradigm
Ontology
Epistemology
Ethics (axiology)
Grounded Theory
Reflexivity (self-reflexivity)

These terminologies are discussed in

the 15 free (open-access) textbooks

that feature in this presentation:

PhD methods 15 free digital textbooks qualitative quantitative mixed methods

Jay Jericho

✓ Subscribed ⚙ 15

https://www.youtube.com/watch?v=XZjJpH7xf48&index=12&list=PLAS9cuKo6A5p-2enKFzjFXcvdBF-vtZl8

Key terminologies: data prefix terms

Data triangulation
Data reliability
Data validity
Data generalisibility
Data transferability
Data replicability
Data saturation
Data collection method
Data analysis method

This article offers a good discussion of **these terms**:

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8 (4), 597–606.

<http://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1870&context=tqr>. Accessed 20 July 2016.

Methods: data collection and data analysis

DATA COLLECTION
Survey
Interview
Observation
Ethnography
Focus groups
Action research
Archive research
Data mining (content)
Scientific experiments

Desktop research
Fieldwork research

Obtrusive research
Unobtrusive research

Reactive data
Non-reactive data

| DATA ANALYSIS |
| --- |
| Comparative analysis |
| Content analysis |
| Case study analysis |
| Correlation analysis |
| Statistical analysis |
| Data modeling (equations) |

Data sampling is a principle that is relevant to the vast majority of arts and sciences research projects. If you are not collecting data samples you are engaging with the population. You must inform your audience which of these two paths you take.

As a general rule, you should aim to analyse data from the population which you are studying in call cases where this is possible. Many students choose to extract data samples because of time constraints, funding constraints or because some data from the population may not be accessible.

Small sample
25%

Large sample
50%

Population
100%
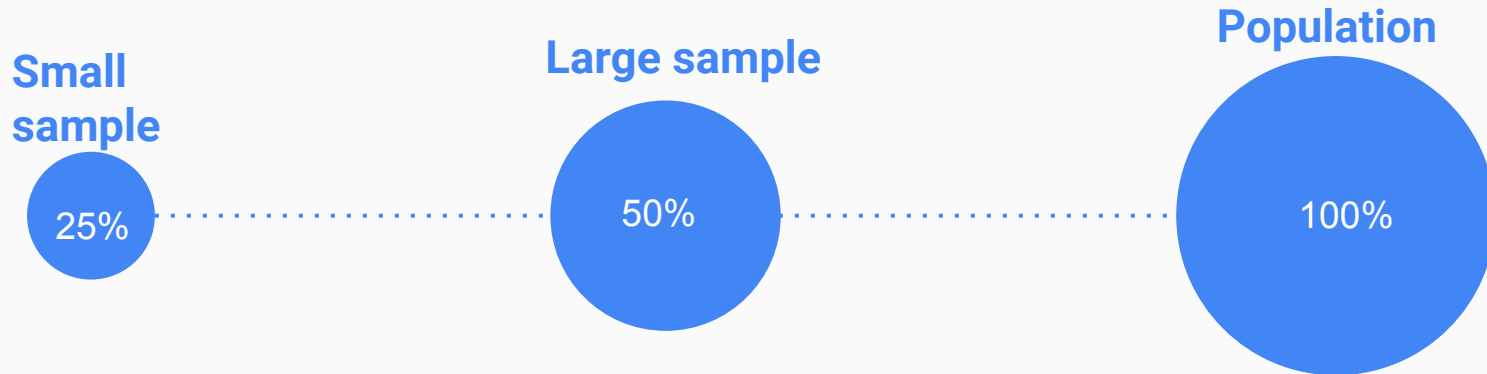
Sampling techniques

There are numerous types of sampling techniques that you may adopt. Classifications vary between texts. Each technique is not always mutually exclusive of others. For example you may combine snowball sampling and quota sampling. Popular sampling techniques include:

Simple random sampling
Cluster sampling
Quota sampling
Convenience sampling
Snowball sampling
Theoretical sampling

This article explores the complexity of sampling techniques. The author argues that the boundaries between different sampling techniques may overlap.

Coyne, I. (1997), Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries?, *Journal of advanced nursing*, 26(3), 623–630.

https://www.semanticscholar.org/paper/Sampling-in-Qualitative-Research-Purposeful-and-Bsc-Hons/875d5c4533edfeffa0b1b8291b82f9a3c13342b3/pdf

Doctoral researchers should show specialisation in one or more methods

A doctoral researcher must convince their audience that they are expert in at least one research method. Although this is not normally a mandatory requirement, it may be useful to offer a constructive critique of the the literature that theorises the methods that you choose. You should not become side-tracked by this issue if this is not a stated objective of your thesis. Your examiners are looking for evidence of your research sophistication. One way that you can show this sophistication is to refer to specific data collection methods. Example: instead of saying "I use the **survey method**" you can say "I use **online survey** method to gather data via the **SurveyMonkey.com** website".

Content analysis as an example of research methods sophistication

At doctoral level it is not acceptable to say "*I use content analysis to inspect documents*". You need to show more sophistication. For example, you might say "*I use various content analysis methods to analyse documents that I obtain via unobtrusive research methods. These methods include text analysis, image analysis, narrative analysis and thematic analysis*".

Other examples of specific content analysis methods

Speech analysis, discourse analysis, semantic analysis, policy analysis, rhetoric analysis

You should consult texts that offer specialist instructions on your chosen methods. For example:

Neuendorf, K. (2002), The content analysis guidebook, London: Sage. (456 pages)

Methodological design must match your aims

Your methodological design must match your unique research objectives. You need to explicitly put forward this claim in your research methods chapter in the introduction section and continue this argument throughout this chapter. Your research methods chapter should not offer a general discussion of research methods theory. At all times you should aim to convince the reader that your architectural design (*e.g.* data collection, data analysis, epistemological framework) is appropriate to pursue your aims.

It is critical that you do not have any major technical mistakes or logical errors in your methodological framework. If you do, then a so-called 'fatal-flaw' may run through your entire thesis, rendering its conclusions invalid.

Example of a fatal flaw

"This project gives a voice to minorities who work in Welsh coalmines in 2016. To achieve this, I use discourse analysis to deconstruct human rights literature to create a taxonomy of social problems". To give a voice to minorities you must interact with them directly to gather primary data (*e.g.* via interviews) and/or indirectly (*e.g.* analyse secondary data such as newspaper stories).

Triangulating qualitative and quantitative data

A complex debate that endures in the research methods literature is whether you can triangulate qualitative and quantitative data. This topic should interest those who engage in mixed-methods research. Whichever position you take on this debate, be sure that you support your argument with relevant peer-reviewed scholarly literature.

Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action, *Administrative science quarterly*, 24 (4), 602-611.

<http://www.jstor.org/stable/2392366> accessed 20 July 2016.
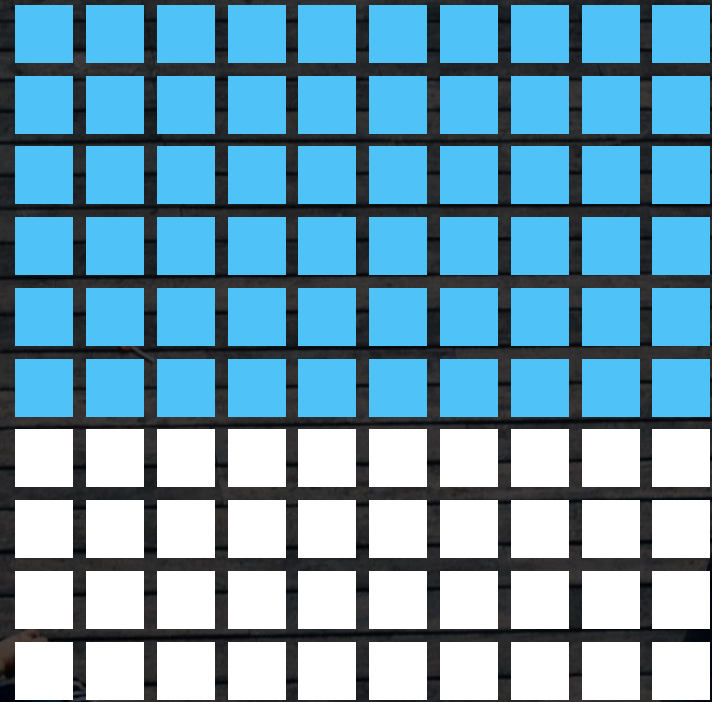
Combined paradigms

Doctoral researchers need to show evidence of sophistication in the ways that they theorise their data analysis. One way that you can do this is by combining paradigms. Some examples are:

Feminism: brings issues that concern women to the forefront of analysis.

Marxism: brings issues that concern social-class to the forefront of analysis

Feminist-**Marxist** research: co-analyses gender and social class issues when interpreting data.

Postcolonialism: brings issues that concern empires and colonies to the forefront of analysis.

Positivist research: aims to prove an argument using mathematical techniques such counting.

A researcher could combine these two paradigms and conduct **mixed-methods** research.

Example of a comprehensive doctoral thesis methods chapter

Jericho (2014)

Further reading

Bernard, H. & Gravlee, C. (Eds.). (2014). *Handbook of methods in cultural anthropology*, Maryland, USA: Rowman & Littlefield.

http://s3.amazonaws.com/academia.edu.documents/38753852/Handbook_of_Methods_14_107-Bernard_1sts_2014.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1469225550&Signature=I7CXuP2pVdlmHANIpFzwwwaiL4A%3D&response-content-disposition=inline%3B%20filename%3DHandbook_of_Methods_in_Cultural_Anthropo.pdf.

This is a quality 746 page open-access (free) textbook. I suggest that you access this now before it disappears from the freebies list!

Please share this presentation

jjericho@collegeprofessor.ca