Tips to get you started with qualitative research

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Quantitative versus qualitative research

QUANTITATIVE	QUALITATIVE
	

Image Credit: @MattPLavoie

Quantitative versus qualitative research

QUANTITATIVE 	QUALITATIVE 
Count, classify, construct, model	Describe, explore, understand phenomena in-depth
Know in advance what you're looking for	Know roughly in advance what to expect
All study aspects carefully designed before data collection starts	Research design may emerge and change as study unfolds
Uses measuring tools or instruments to collect numerical data (or data that can be turned into numerical data)	The researcher is the data gathering "instrument"
Data = numbers, statistics	Data = words, pictures, objects
Objective process: previse measurements recorded	Subjective process: individual's interpretations recorded

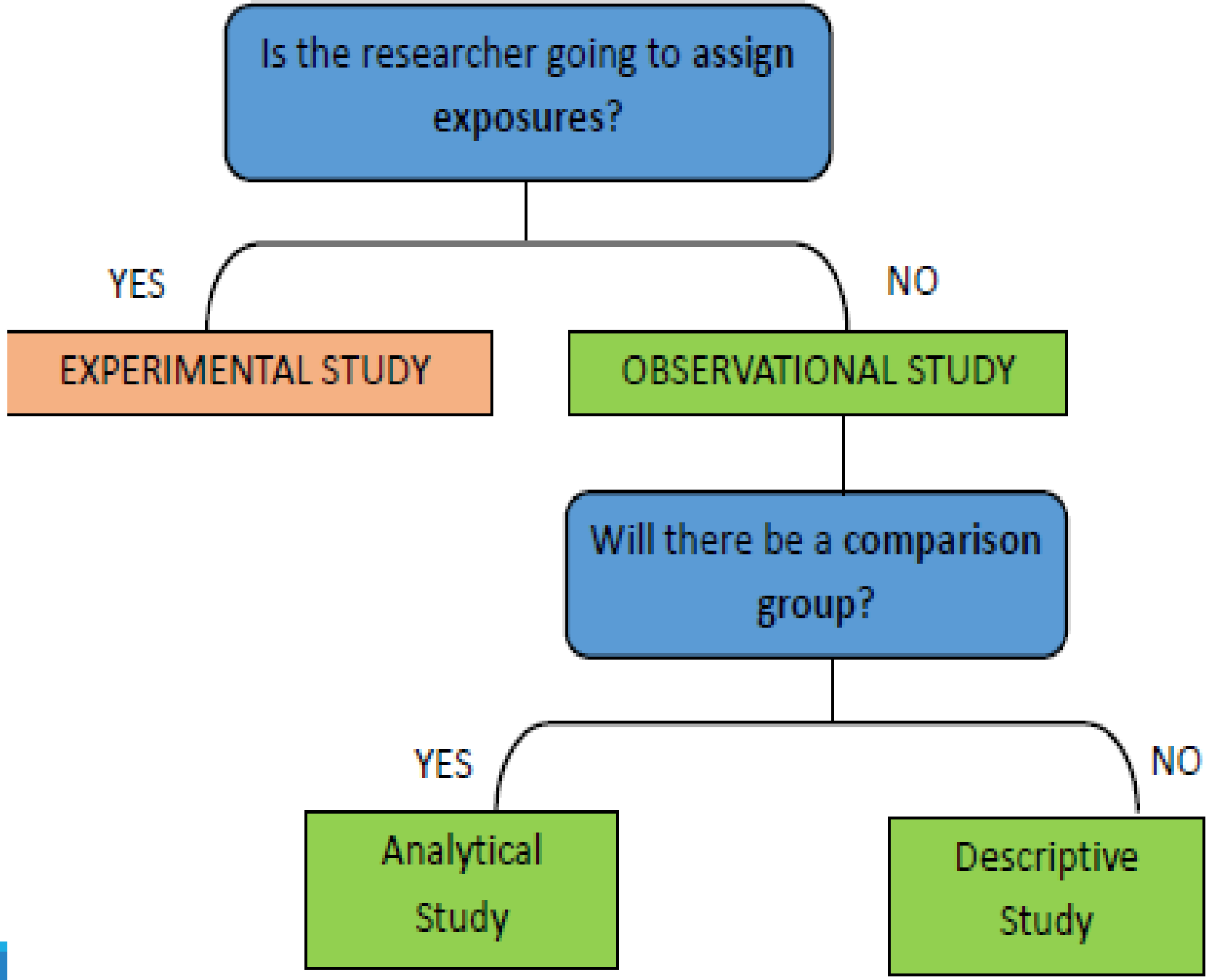
Source: Dr A Dramowski, 03/03/2016

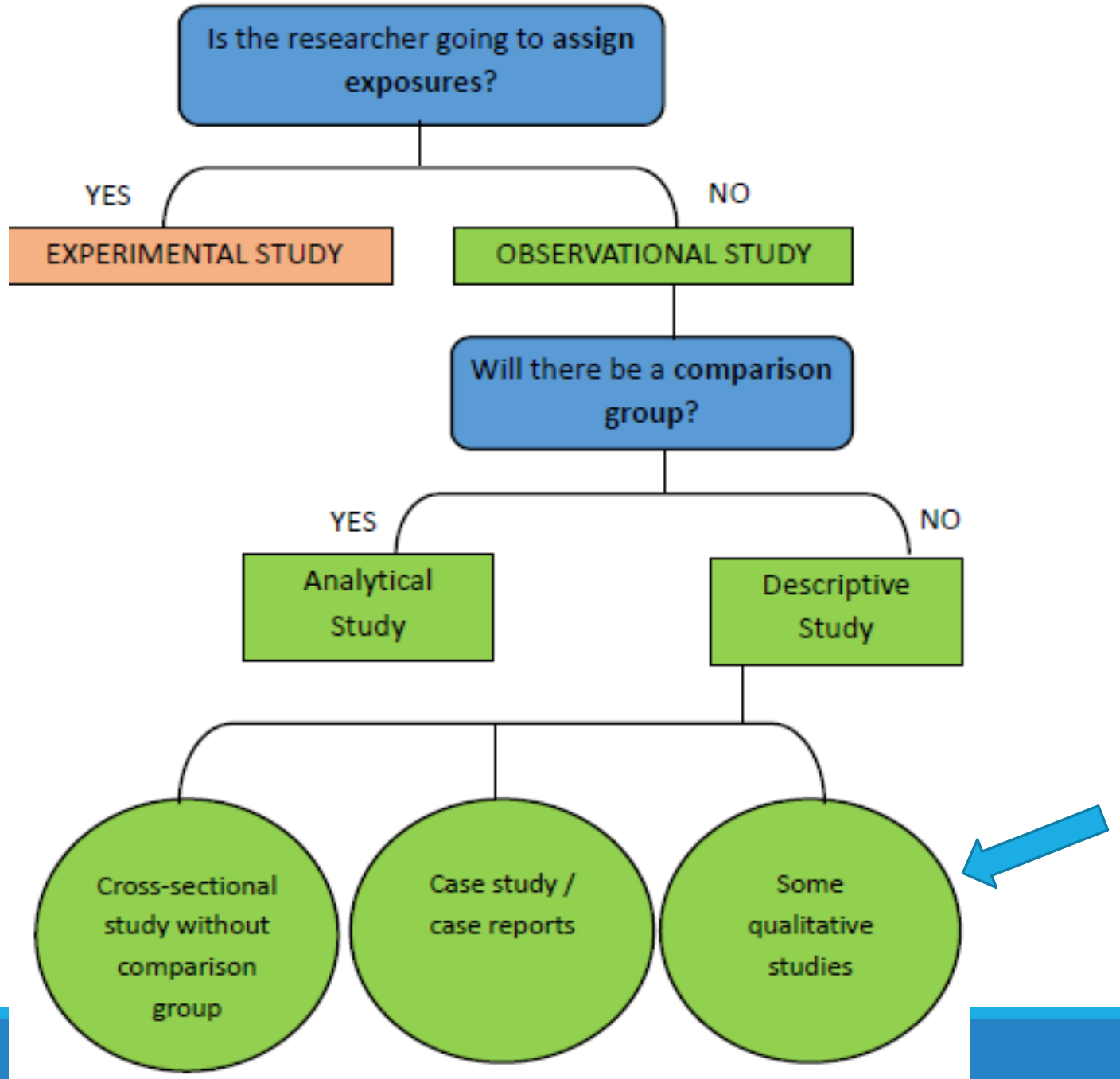
Research **questions** matched to research **designs**

In each case, a systematic review of all available studies is better than an individual study

Question type	Best primary study design
Therapy or prevention	• Randomised controlled trial (RCT)
Aetiology, risk factors, harm	• Cohort or case control study
Diagnosis & screening	• Cross-sectional & RCT respec.
Prognosis & incidence	• Cohort study
Prevalence	• Cross-sectional study
Experiences, meaning &	• Qualitative study

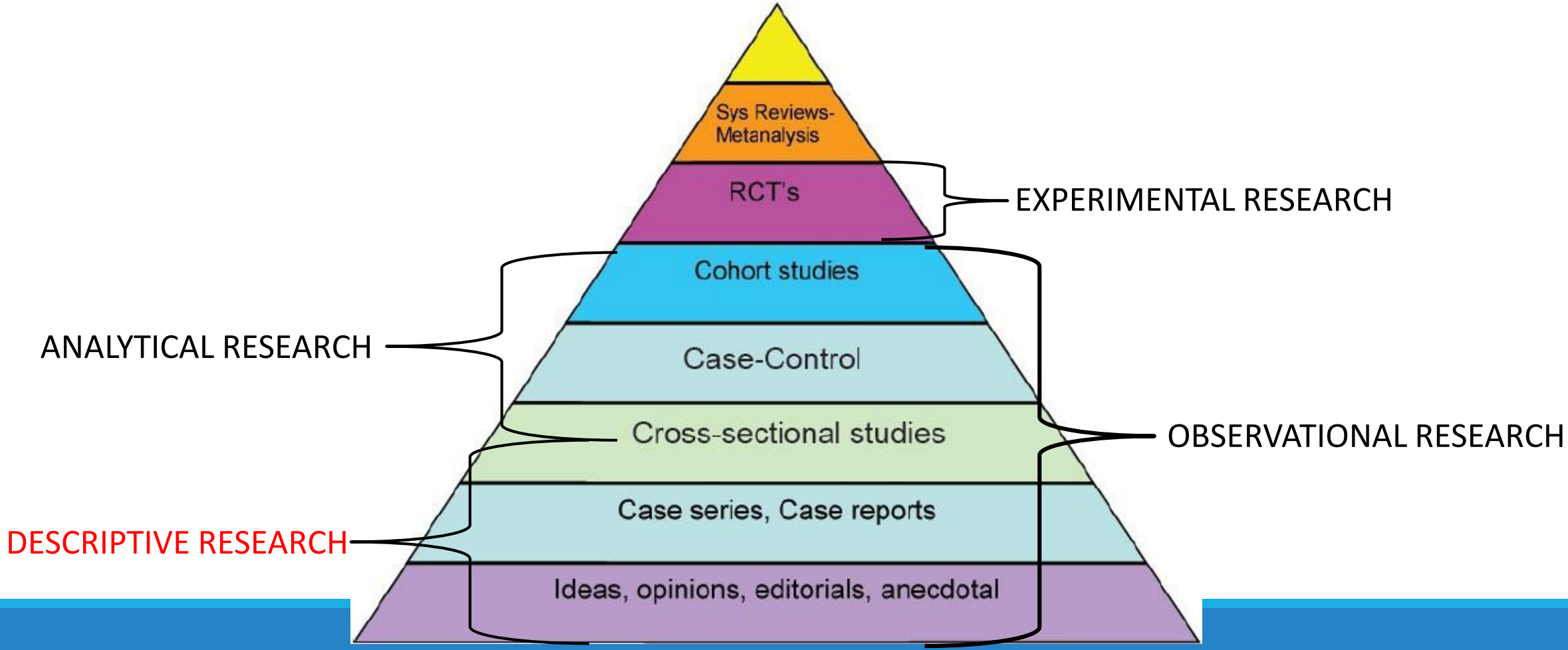
Deciding on your research design


Is the researcher going to assign exposures?
YES
NO
EXPERIMENTAL STUDY
OBSERVATIONAL STUDY
Will there be a comparison group?
YES
NO
Analytical Study
Descriptive Study


Is the researcher going to assign exposures?
YES
NO
EXPERIMENTAL STUDY
OBSERVATIONAL STUDY
Will there be a comparison group?
YES
NO
Analytical Study
Descriptive Study
Cross-sectional study without comparison group
Case study / case reports
Some qualitative studies

Research designs

For more detailed information and advantages and disadvantages of different designs, see http://www.cebm.net/study-designs/



Some notes about qualitative research

- Different ontological and epistemological beliefs, different paradigm or worldview
- Reality is not fixed or stable or objective: it is subjective and open to interpretation
- Focus of analysis: words, language and text, not numbers and statistics
- But: does not mean it's not **systematic**
- Other differences from quantitative:
  - Sample size and sampling
  - Iterative analysis: start analysing during data collection
  - Quality criteria
- Variety of qualitative analysis techniques, all with different 'rules'

Types of qualitative **methods**

Method	Focus	Sample size	Data collection
Ethnography	Context or culture	---	Observations and interviews
Narrative	Individual experience & sequence	1 to 2	Stories from individuals & documents
Phenomenological	People who have experienced a phenomenon	5 to 25	Interviews
Grounded theory	Develop a theory grounded in field data	20 to 60	Interviews, then open and axial coding
Case study	Organization, entity, individual or event	---	Interviews, documents, reports, observations

Source: https://www.measuringu.com/blog/qual-methods.php

Selected types of qualitative **analysis**

- Thematic analysis:

University of the West of England
BRISTOL

Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2). pp. 77-101. ISSN 1478-0887 Available from: http://eprints.uwe.ac.uk/11735

We recommend you cite the published version.
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http://dx.doi.org/10.1191/1478088706qp063oa

Refereed: Yes

- Framework analysis:

JOAAG Research Note

Srivastava, A. & Thomson, S. B. (2009).Framework Analysis: A Qualitative Methodology for Applied Policy Research. *JOAAG*, Vol. 4. No. 2

Framework Analysis:
A Qualitative Methodology for Applied Policy Research

Aashish Srivastava[1]

S. Bruce Thomson[2]

- Content analysis
- Narrative analysis
- Discourse analysis

Synthesising qualitative and quantitative evidence: a review of possible methods

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Background: The limitations of traditional forms of systematic review in making optimal use of all forms of evidence are increasingly evident, especially for policy-makers and practitioners. There is an urgent need for robust ways of incorporating qualitative evidence into systematic reviews.

Objectives: In this paper we provide a brief overview and critique of a selection of strategies for synthesising qualitative and quantitative evidence, ranging from techniques that are largely qualitative and interpretive through to techniques that are largely quantitative and integrative.

Results: A range of methods is available for synthesising diverse forms of evidence. These include narrative summary, thematic analysis, grounded theory, meta-ethnography, meta-study, realist synthesis, Miles and Huberman's data analysis techniques, content analysis, case survey, qualitative comparative analysis and Bayesian meta-analysis. Methods vary in their strengths and weaknesses, ability to deal with qualitative and quantitative forms of evidence, and type of question for which they are most suitable.

Conclusions: We identify a number of procedural, conceptual and theoretical issues that need to be addressed in moving forward with this area, and emphasise the need for existing techniques to be evaluated and modified, rather than inventing new approaches.

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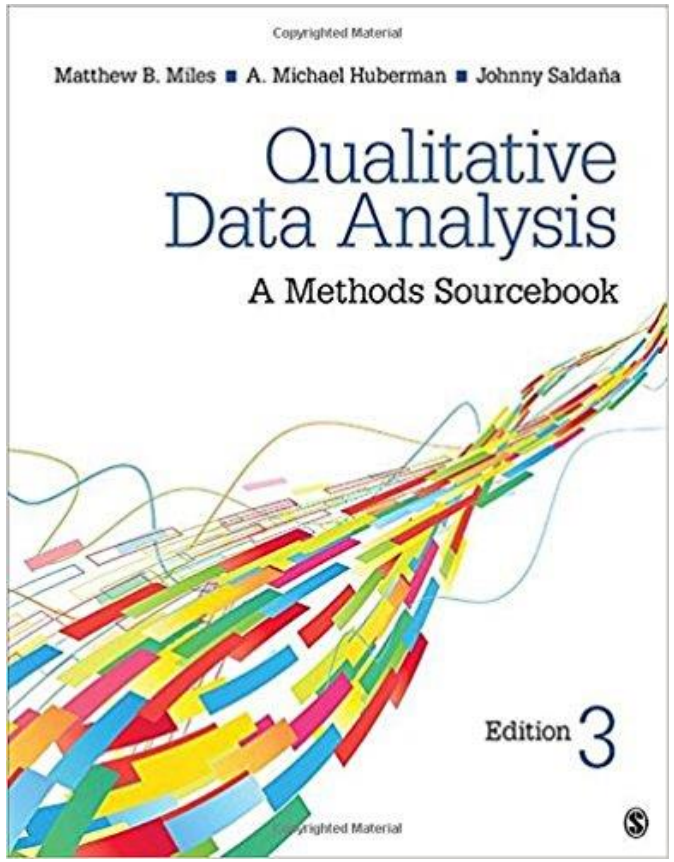

Analysis software options: ATLAS.ti NVivo

AM Last Page: Quality Criteria in Qualitative and Quantitative Research

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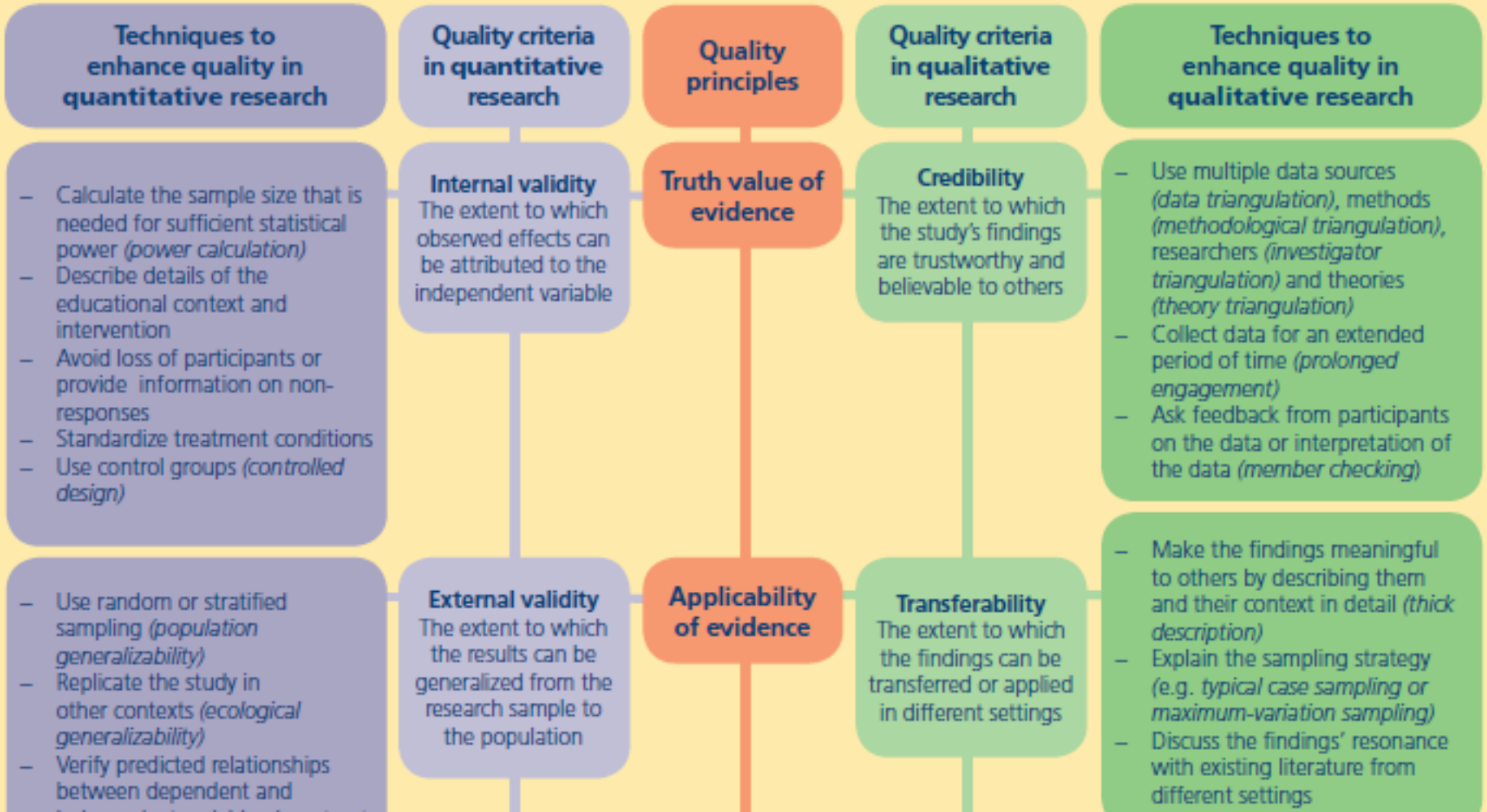
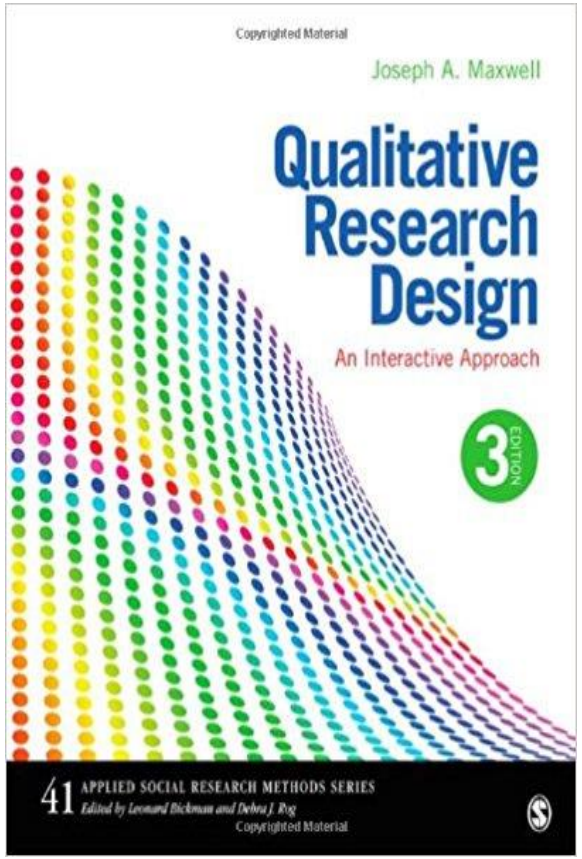
Steven J. Durning, MD, PhD, professor of medicine and pathology, Uniformed Services University of the Health Sciences

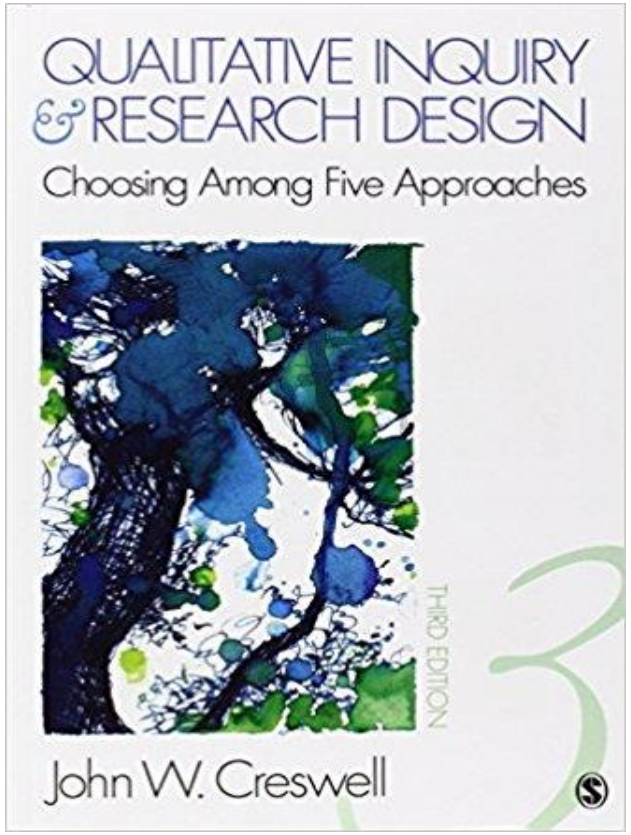
Good research in medical education is characterized by evidence that is trustworthy, applicable to (multiple) practical settings, consistent, and neutral (unbiased)—regardless of whether a qualitative or a quantitative approach is used. However, while qualitative and quantitative research share similar standards for good evidence (quality criteria), the conception and operationalization of these quality criteria differ between the two. Below, we provide an overview of these criteria and a number of techniques that researchers can use to meet them. In addition, we note that the criteria are interlinked, and that some of the techniques contribute to multiple criteria at the same time.

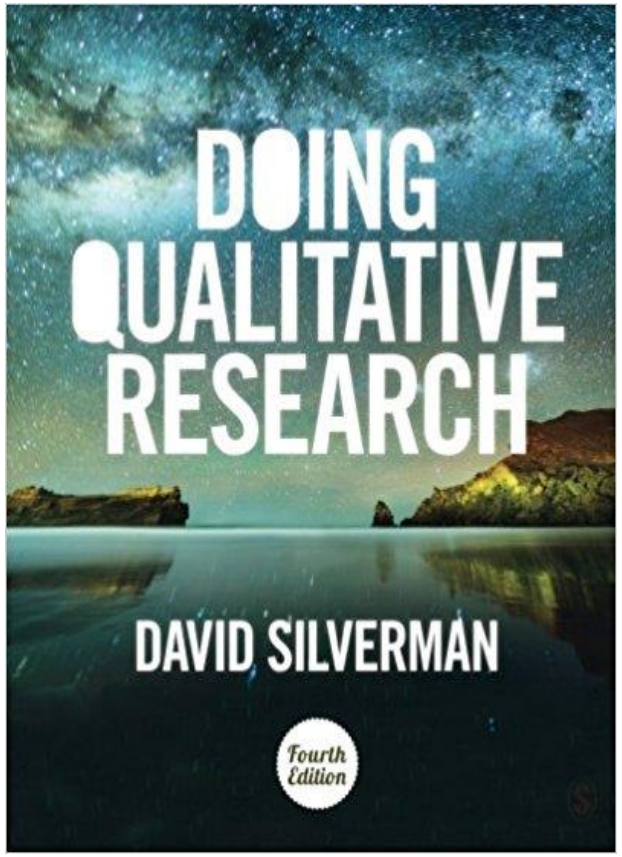


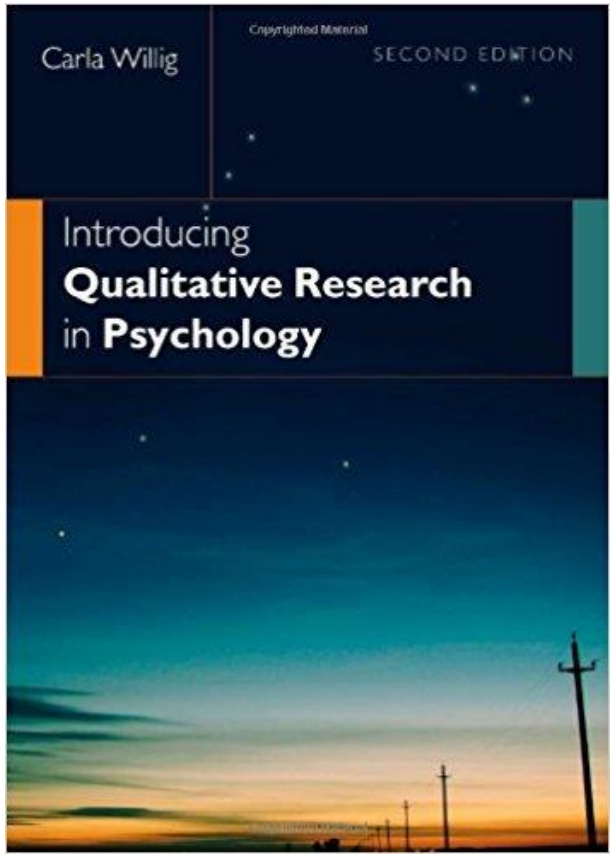
Quality criteria in quantitative and qualitative research

Go-to gurus for qualitative research

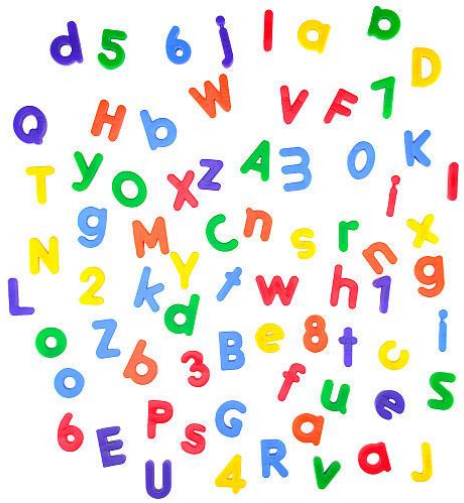








A note on mixed methods



- Combining quantitative and qualitative methods
- A word to throw around at dinner parties: triangulation
- Data triangulation: of different data *sources*
- Methodological triangulation: of different *methods*
- Theoretical triangulation: of different *theories*
- Investigator triangulation: different researchers analyse same data
- Looking for convergences & divergences

Three techniques for integrating data in mixed methods studies

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bmj.com archive
Previous articles in this series
- Assessing equity in systematic reviews: realising the recommendations of the Commission on Social Determinants of Health (*BMJ* 2010;341:c4739)
- Meta-analysis of

Techniques designed to combine the results of qualitative and quantitative studies can provide researchers with more knowledge than separate analysis

Health researchers are increasingly using designs that combine qualitative and quantitative methods, and this is often called mixed methods research.[1] Integration—the interaction or conversation between the qualitative and quantitative components of a study—is an important aspect of mixed methods research, and, indeed, is essential to some definitions.[2] Recent empirical studies of mixed methods research in health show, however, a lack of integration between components,[3 4] which limits the amount of knowledge that these types of studies generate. Without integration, the knowledge yield is equivalent to that from a qualitative study and a quantitative study undertaken independently, rather than achieving a "whole greater than the sum of the parts."[5]

Barriers to integration have been identified in both health and social research.[6 7] One barrier is the absence of formal education in mixed methods research. Fortunately, literature is rapidly expanding to fill this educational gap

SUMMARY POINTS

Health researchers are increasingly using designs which combine qualitative and quantitative methods
However, there is often lack of integration between methods
Three techniques are described that can help researchers to integrate data from different components of a study: triangulation protocol, following a thread, and the mixed methods matrix
Use of these methods will allow researchers to learn more from the information they have collected

triangulation. The term triangulation can be confusing because it has two meanings.[10] It can be used to describe corroboration between two sets of findings or to describe a process of studying a problem using different methods to gain a more complete picture. The latter meaning is commonly used in mixed methods research and is the meaning used here.

The process of triangulating findings from different methods takes place at the interpretation stage of a study when both data sets have been analysed separately (figure). Several techniques have been described for triangulating findings. They require researchers to list

BMJ open
accessible medical research

Suicide-related discussions with depressed primary care patients in the USA: gender and quality gaps. A mixed methods analysis

Steven D Vannoy,[1] Lynne S Robins[2]

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► Prepublication history for this paper is available online. To view these files please visit the journal online (http://bmjopen.bmj.com).

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ABSTRACT

Objective: To characterise suicide-risk discussions in depressed primary-care patients.

Design: Secondary analysis of recordings and self reports by physicians and patients. Descriptive statistics of depression and suicide-related discussion, with qualitative extraction of disclosure, enquiry and physician response.

Setting: 12 primary-care clinics between July 2003 and March 2005.

Participants: 48 primary-care physicians and 1776 adult patients.

Measures: Presence of depression or suicide-related discussions during the encounter; patient and physician demographics; depression symptom severity and suicide ideation as measured by the Patient Health Questionnaire (PHQ9); physician's decision-making style as measured by the Medical Outcomes Study Participatory Decision-Making Scale; support for autonomy as measured by the Health Care Climate Questionnaire; trust in their physician as measured by the Primary Care Assessment Survey; physician response to suicide-related enquiry or disclosure.

Results: Of the 1776 encounters, 128 involved patients scoring >14 on the PHQ9. These patients were seen by

ARTICLE SUMMARY

Article focus

- Determine frequency of suicide-related discussions in routine primary-care encounters with depressed patients along with demographic predictors.
- Identify process variables that may or may not influence the likelihood that suicide will be discussed in primary care.
- Analyse interview style related to enquiring about suicide and responding to patient responses to enquiry as well as unsolicited disclosure.

Key messages

- Suicide is addressed in a small minority of encounters with depressed patients in primary care.
- Suicide is rarely discussed with depressed male patients who are at high risk for suicide.
- Physician enquiries related to suicide are often made with patients who have the lowest levels of ideation, and the enquiries themselves are often biased to elicit a denial of ideation.

Strengths and limitations of this study

Go-to guru for mixed methods research