

Mixed Methods research	Set-up & Conduct- Methods & Data Collection	
	VERSION	1.0

The two most widely used research methods are quantitative and qualitative research. However, a third approach is growing in popularity and utilization: mixed methods research. Though there is no consensus on a set definition for mixed methods, [Johnson and Onwuegbuzie \(2007\)](#), analysed many definitions within the literature, and created a general definition: “Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.”.

Below, an overview of the basics in mixed methods research, alongside references to relevant literature, is provided

Mixed methods: when?

The goal of mixed methods research is not to replace either qualitative or quantitative research, but rather to combine the two methods by incorporating strengths and minimize weaknesses from both. It is fundamental that the research method is chosen in order to answer the research questions in the best possible way. For many research projects it can be of high value, and offer an opportunity to answer (a combination of) research questions most fully, to combine elements through a mixed methods design. [Guest and Fleming \(2015\)](#) stated that there is no benefit in using mixed methods research, if it doesn't have added value to a single method approach. They also stated that most public health research encompass complex problems and research questions, that can benefit from including both qualitative and quantitative elements.

An example of a mixed methods study could be a quantitative experiment, complemented with qualitative interviews to add the perspectives of the end-users, more examples can be found in chapter 1 of [Creswell and Clark \(2017\)](#). An overview of the strengths and limitations of a mixed methods study can be found in table 5 of [Johnson and Onwuegbuzie \(2004\)](#) and in chapter 1 of [Creswell and Clark \(2017\)](#).

Designing, conducting and analysis

In mixed methods research it is important to determine whether the study will mainly have a qualitative focus, a quantitative focus, or a shared (i.e., 50/50) focus. Furthermore, a decision should be made on whether the qualitative and quantitative stages are performed simultaneously or consecutively. [Guest and Fleming \(2015\) discuss](#) different types of designs in mixed methods research, and provide information on how these designs can be conducted.

The final step in data analysis in mixed methods research is the integration, of qualitative and quantitative data. The process and method of data integration depend on the mixed methods design that is used. In simultaneous designs the data is merged, while in consecutive designs the data is connected. Different methods of data integration are described in detail in [Guest and Fleming \(2015\)](#).

Publishing

[Gaglio et al. \(2020\)](#) developed the Patient-Centered Outcomes Research Institute's (PCORI) methodology standards for qualitative and mixed methods research to ensure that research studies are designed and conducted to generate the evidence needed to answer patients' and clinicians questions about which methods work best, for whom, and under what circumstances. They also provided an example on how these standards can be used. Although these standards are focused on patient-centered outcomes research, they can also be used to guide other clinical research. Various medical and public health journals publish mixed methods studies.

Read more

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- Creswell, J.W. (2015) *A concise introduction to Mixed Methods Research*. Thousand Oaks, Sage publications.
- Curry, L. & Nunez-Smith, M. (2015) *Mixed Methods in Health Sciences Research. A Practical Primer*. London: SAGE Publications.
This guidebook shows readers how to design, conduct, review, and use mixed methods research findings.
- Morgan D. (2014). *Integrating qualitative and quantitative methods: A pragmatic approach*. Thousand Oaks, CA: Sage.
- Morse, J.M. & Cheek, J. (2015) *Introducing Qualitatively-Driven Mixed-Methods Designs*. *Qualitative Health Research*, 25 (6): 731-733.
- O'Cathain, A., Murphy E. & Nicholl, J. (2007) Why, and how, mixed methods research is undertaken in health services research in England: a mixed methods study. *BMC Health Services Research*, 7: 85.
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- Östlund, U. et al. (2011) Combining qualitative and quantitative research within mixed method research design: A methodological review. *International Journal of Nursing Studies*, 48: 369-383.
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1. Johnson RB, Onwuegbuzie AJ, Turner LA. Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*. 2007;1(2):112-33.
2. Guest G, Fleming P. *Public Health Research Methods*. 2015 2021/01/08. 55 City Road, London: SAGE Publications, Inc. Available from: <https://methods.sagepub.com/book/public-health-research-methods>.
3. Creswell JW, Clark VLP. *Designing and Conducting Mixed Methods Research*: SAGE Publications; 2017.
4. Johnson RB, Onwuegbuzie AJ. *Mixed Methods Research: A Research Paradigm Whose Time Has Come*. *Educational Researcher*. 2004;33(7):14-26.
5. Gaglio B, Henton M, Barbeau A, Evans E, Hickam D, Newhouse R, et al. Methodological standards for qualitative and mixed methods patient centered outcomes research. *BMJ*. 2020;371:m4435.

LINKS

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DOCUMENT HISTORY

Version	Status	Date	Name
1.0	Document created	08JAN2021	Bo Schouten (author) Dr. Erik Timmermans (reviewer)

1.0 DOCUMENT APPROVAL

Role	Name	Date
Project Leader	Dr. Seta Jahfari	12MAY2021