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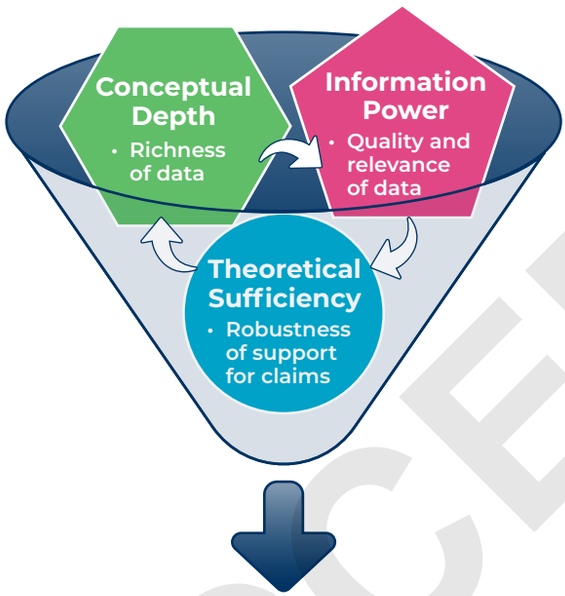
Assessing Data Adequacy in Qualitative Research Studies

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When undertaking qualitative research studies, researchers often use the concept of data saturation to justify sufficient sampling to cease data collection and analysis. We argue that this reveals a positivist perspective that is incompatible with qualitative research,[1] which is instead based on constructivist, interpretivist, or other perspectives. Instead, we recommended the concepts of **information power,**[2] **conceptual depth,**[3] and **theoretical sufficiency,**[1,4,5] with **data adequacy** considered during research design and evaluated iteratively throughout the sampling, data collection, and analysis processes. The table below provides guidelines for when more, or less, data are needed to justify cessation of data collection and analysis. Both researchers and readers can use the criteria for assessing data adequacy.

How much sampling, data collection, and analysis is enough?

The concepts below provide alternative criteria to support arguments for sufficient sampling and adequate data collection and analysis.



These dynamic and interrelated study features should be considered *collectively,* during research design and on an ongoing basis when conducting the study, to determine data adequacy. Importantly, it is only when conducting iterative data collection and analysis, not beforehand, that a researcher can evaluate whether their sampling, data collection, and analysis are enough.

When more data are needed	When less data are needed
Broad or vague study aim	Narrow and focused study aim
Multiple or cross-case studies	Single in-depth or longitudinal case study
Poor alignment between the research question and data collected and/or inappropriate study design	Coherence between the research question and data collected, aligned research design
Only one data type collected	Multisource data
Participants sparsely experienced or knowledgeable in phenomenon of interest	Participants densely experienced or knowledgeable in phenomenon of interest
Shallow data (e.g., weak dialogue)	Data are deep and rich (e.g., strong dialogue)
Weak resonance to literature or no link to theory	Strong resonance with literature and use of theory
Basic, simple, or one-dimensional analysis, and low-level theorizing	Complex, multidimensional analysis and high-level theorizing, with subtly, nuance, and richness
Few supporting examples or insufficient support for claims	Many supporting, confirmable examples for claims (e.g., thick, rich, and credible descriptions enabling theory building)
Limited apparent applications	Transparent, dependable research design and rich, deep data to support potential transferability
Lack of transparency (e.g., insufficient detail reported)	

Feasibility and *pragmatics* must also be taken into account[1,4] (i.e., what is achievable practically?). **In summary, the *nature,* or *quality,* of the data are more important than the *number,* or *quantity.***

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