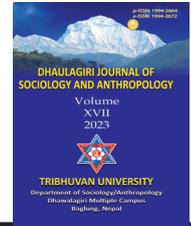


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Sampling and Trustworthiness Issues in Qualitative Research

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Abstract

Qualitative research is crucial in exploring the complexities of human experiences, behaviors, perceptions, and social phenomena. It is particularly effective in generating hypotheses, exploring new research topics, and capturing the subjective aspects of human interaction and experience. It emphasizes social, economic, and political context, cultural nuances, and participants' voices for comprehensive and holistic understanding. Determining an appropriate sampling method and adequacy of sample size remains a challenging aspect of qualitative research methodology. This paper highlights the key issues related to sampling approaches, sample size, and trustworthiness in qualitative research.

Keywords: credibility, data saturation, qualitative research, trustworthiness

Introduction

Sample size determination is a critical aspect of research design, whether the study is qualitative or quantitative. The approach to determining sample size varies between the two types of research. For quantitative research, sample size is often determined using statistical formulas considering factors such as population variability, confidence level, and margin of error (Bryman, 2016). In addition to the formula-based approach, quantitative researchers may also conduct a power analysis to determine the likelihood of identifying the highest-level effect if it exists (Onwuegbuzie & Leech, 2007).

Qualitative research is characterized by its in-depth exploration of phenomena, aiming to provide rich insights into the lived experiences of individuals. Unlike quantitative research, which often employs large sample sizes to achieve statistical power, qualitative research emphasizes depth over breadth (Creswell, 2007). In qualitative research, the rationale behind sample size calculation is rooted in the pursuit of depth, richness and saturation of information rather than statistical generalization (Bryman,

2016). Determining an appropriate sample size is crucial to ensure the soundness and trustworthiness of findings in qualitative studies (Neuman, 2008).

The determination of sample size in qualitative research is often guided by data saturation, where researchers aim to reach a point at which new data cease to provide additional insights or perspectives (Hennink & Kaiser, 2022). The goal is to gather a sufficiently diverse and representative group of participants to ensure the exploration of various dimensions within the research question(s). This paper highlights the factors influencing sample size decisions and propose guidelines for qualitative research.

Qualitative Research in Social Sciences and Sample Size Issues

Determining the sample size in qualitative research, especially in social sciences, is a nuanced process that involves considerations specific to the research question, design, and the nature of the qualitative data. Qualitative research focuses on in-depth exploration and understanding



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of phenomena, making sample size less formulaic (Morse et al., 2002). However, there are several factors to consider sample size.

First, the researcher should consider the depth and breadth of the research question. A more complex or broad question might require a larger sample size (Bryman, 2016). She/he should be ensured that the sample size allows for a comprehensive exploration of the research question without being too large to handle in-depth analysis.

Second, qualitative research often aims for data saturation, meaning new information discontinues emerging from the data. Once the researcher starts hearing the same themes and ideas repeatedly, it suggests that she/he may have reached saturation (Hennink & Kaiser, 2022). Conducting pilot studies or pre-tests can help the researcher estimate when saturation is likely to occur and guide the sample size decisions (Neuman, 2008).

Third, the qualitative research design type the researcher chooses influences sample size. For example, a case study may involve a single case, while a phenomenological study may involve fewer participants. The specific qualitative approach (e.g., grounded theory, ethnography, case study) and its requirements for sample size would be different (Hennink & Kaiser, 2022; Thomson, 2010).

Fourth, the homogeneity or heterogeneity of the population being studied can influence sample size. If the population is diverse, a larger sample may be required to capture the variability. A larger sample helps capture the diverse range of attributes and traits within different subgroups of the population (Thomson, 2010). A larger sample size provides a more comprehensive and representative snapshot of the population that reduces the risk of underrepresentation (Lincoln & Guba, 1985).

Fifth, some qualitative studies are guided by theoretical frameworks that suggest appropriate sample sizes (Thomson, 2010). For instance, certain qualitative research methods may recommend specific guidelines based on theoretical principles.

Sixth, there are practical limitations such as time, budget, and available resources (Hennink & Kaiser, 2022). A researcher may compromise the sample size. If this is the case, she/he should clearly write the limitations of the sampling framework adopted in the study. A smaller sample size may be more feasible if the researchers have limited resources for data collection and analysis.

Seventh, it is important to note that there is no one-size-fits-all approach to determining sample size in qualitative research. It is crucial to justify and document the decisions based on the specific requirements and characteristics of the study. Consulting relevant literature and engaging in ongoing reflexivity about the research process can also enhance the rigor of qualitative research (Morse, 2015).

Random Sampling is Inappropriate in Qualitative Research

Random sampling is considered inappropriate in qualitative research due to the nature and objectives of qualitative inquiry (Neuman, 2008). Unlike quantitative research, where the goal is often to generalize findings to a larger population, qualitative research aims to explore in-depth insights, meanings, and contextual nuances within a specific group or phenomenon (Lincoln & Guba, 1985). Random sampling, which relies on chance to select participants, may overlook the importance of purposeful and strategic selection in qualitative studies. Qualitative research emphasizes the richness of information obtained from individuals with unique perspectives and experiences relevant to the research question. Purposive sampling allows researchers to deliberately choose participants who can contribute thick and varied data, aligning more closely with the qualitative research paradigm. Marshall (1996) has suggested three broad approaches to selecting a sample for a qualitative study. A brief description of these approaches is described below.

Convenience Sample

Convenient sampling, also known as availability or accidental sampling, is a method employed in qualitative research that involves selecting participants based on their easy accessibility and proximity to the researcher (Creswell, 2007). This approach is often chosen for its practicality and convenience, particularly when time and resources are limited. Researchers may opt for convenient sampling when they seek to explore specific phenomena within a particular setting and need quick access to participants (Marshall, 1996).

For instance, if a researcher studying urban poverty chooses to survey individuals in a local community center, the findings may not accurately reflect the broader urban poor population. Similarly, in anthropological research, selecting participants from a specific cultural event or location may lead to biased results, excluding individuals who do not participate in such activities. This method often sacrifices trustworthiness, limiting the ability to draw conclusions that can be applied to the larger population or cultural context. To enhance the robustness of sociological and anthropological studies, researchers should carefully consider the implications of relying solely on convenient samples and try to incorporate more diverse and representative sampling methods.

While convenient sampling facilitates easier data collection, it is essential to acknowledge its limitations, such as the potential for sampling bias and a lack of generalizability to larger populations. Researchers utilizing this method should carefully consider the implications of their sample selection on the study's strength and try hard to maximize the depth of insights gained from the participants involved.

Judgment Sample

Judgment sampling plays a crucial role in qualitative research. This sampling method provides researchers with a purposive and strategic method for selecting participants or cases based on their unique characteristics or relevance to the research question. Judgment sampling allows researchers to use their expertise and judgment to choose participants with specific qualities, experiences, or perspectives deemed essential to the study (Marshall, 1996). This is a more intellectual strategy to include various ages, gender, caste, ethnic groups, and social classes in sociological and anthropological research. This approach is particularly valuable in social science research, where the goal is to explore in-depth insights and gain a nuanced understanding of a phenomenon. Judgment sampling is instrumental in ensuring that the sample is representative of the diversity within the population of interest, enhancing the richness and depth of the data collected (Neuman, 2008). Researchers use their judgment to identify key informants or cases that can offer unique and insightful perspectives, contributing to the validity and credibility of the qualitative findings. Ultimately, using judgment sampling enhances the relevance and significance of qualitative research by enabling researchers to focus on the most pertinent aspects of the phenomenon under investigation.

For instance, in a sociological study examining the impact of social media on interpersonal relationships, a judgment sample may be comprised of individuals with diverse demographic and socio-economic backgrounds who are known to be heavy users of social platforms. This approach ensures that the selected participants are more likely to provide rich and relevant information regarding their online interactions and relationships. Similarly, in anthropological research focused on traditional cultural practices, a judgment sample might include communities known for preserving and practicing unique rituals or ceremonies. By strategically employing judgment samples, researchers can enhance the soundness and usefulness of their findings, capturing the intricacies of human societies and cultures.

Theoretical Sample

The theoretical sample holds a paramount significance in sociological and anthropological research, serving as a foundational element that guides the investigation and analysis of social phenomena. In these disciplines, the theoretical sample represents a carefully selected subset of a population, chosen not merely for its demographic representativeness but rather for its potential to illuminate and test theoretical frameworks (Patton, 2015). By focusing on specific cases or groups that exemplify key variables or relationships, researchers can delve deeper into the underlying patterns and structures shaping human behavior and societal dynamics (Marshall, 1996). Theoretical sampling allows scholars to refine and develop theories,

facilitating a nuanced understanding of complex social and cultural processes. Moreover, it enables researchers to generate insights beyond mere description, fostering the development of broader theoretical frameworks that contribute to the advancement of sociological and anthropological knowledge. As such, the theoretical sample serves as a crucial tool in unraveling the intricacies of human societies and cultures, guiding researchers toward a deeper comprehension of the underlying principles that govern social life.

Theoretical sampling plays a crucial role in social science research, guiding the selection of participants based on theoretical considerations rather than convenient sampling methods (Draucker et al. 2007). In sociological studies, researchers might employ theoretical sampling to ensure that participants represent diverse social groups or possess specific characteristics relevant to their theoretical framework (Thomson, 2010). For instance, in a study examining the impact of social class on educational attainment, researchers may purposefully select participants from various socioeconomic backgrounds to capture the nuances of class dynamics. Similarly, in anthropological research, theoretical sampling enables the inclusion of individuals or communities that best exemplify cultural phenomena under investigation. For instance, if studying kinship structures in a specific indigenous community, researchers might strategically select participants whose familial relationships exemplify the cultural patterns central to their research questions. In both disciplines, theoretical sampling enhances the relevance and depth of findings, allowing researchers to draw meaningful insights from carefully selected cases aligned with their theoretical perspectives.

Trustworthiness in Qualitative Research

Trustworthiness in qualitative research is crucial for ensuring the credibility and validity of the findings. Unlike quantitative research, which often relies on statistical methods, qualitative research emphasizes understanding the depth and nuances of human experiences. Trustworthiness in qualitative research is typically assessed through criteria such as credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985).

To achieve credibility, researchers should employ multiple data sources, methods, or perspectives to validate the findings (Morse et al., 2002). This could involve using different data collection methods (in-depth interviews, observations, document analysis) or involving multiple researchers in the data analysis process.

For transferability, a thick description of qualitative research is required. Thick description provides a comprehensive understanding of social phenomena by capturing the intricacies of participants' experiences (Morse, 2015). This is particularly important in fields such as anthropology, sociology, human geography,

and development studies. Researchers provide rich and detailed descriptions of the research context, participants, and process. This allows readers to assess the applicability of the findings to other contexts. The goal is not generalizability in the traditional sense but rather transferability, where readers can decide if the findings are relevant to their context.

Dependability is another criterion for trusting the qualitative research findings. Member checking, a crucial component of qualitative research, holds immense importance in ensuring the credibility and trustworthiness of study findings (Morse et al., 2002). This method involves sharing the research findings with the participants to verify the accuracy and authenticity of the data collected and the interpretation made. Member checking fosters a collaborative approach between the researcher and the study participants and promotes transparency and mutual trust. Participants review the researcher's interpretations of the data to ensure that their perspectives are accurately represented. Member checking is a cornerstone for robust, trustworthy, and participant-centered qualitative research methodology (Lincoln & Guba, 1985).

Furthermore, an audit trail is done to increase the dependability of the research. Researchers maintain a clear and detailed record of the research process, including data collection, analysis, and interpretation. This audit trail allows others to follow the decision-making process and ensures the study can be replicated. Peer briefing also helps researchers engage in discussions to gain alternative perspectives on the research process. This helps in minimizing bias and subjectivity in the interpretation of data.

Researchers should acknowledge and document their biases, assumptions, and values that may influence the research process in qualitative research. Being transparent about the researcher's position helps ensure that personal perspectives do not unduly influence the findings. Acknowledging and documenting contributes to the integrity of the study and encourages the researchers to reflect on their role and potential biases continuously.

Conclusion

Determining an appropriate sample size in qualitative research is a complex and nuanced process. Acknowledging the dynamic nature of qualitative research, flexibility in sample size determination is essential to enhance the credibility and transferability of findings. Researchers must carefully consider the research questions, scope and context to determine an appropriate sample size. It requires thoughtful methodological choice, transparency in reporting, and a continuous dialogue within the research community to enhance the credibility of research findings.

References

- Bryman, A. (2016). *Social research methods*. Oxford University Press.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Draucker, C. B., Martsolf, D. S., Ross, R., & Rusk, T. B. (2007). Theoretical sampling and category development in grounded theory. *Qualitative Health Research*, 17(8), 1137-1148. <https://doi.org/10.1177/1049732307308450>
- Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), 522-526. <https://doi.org/10.1093/fampra/13.6.522>
- Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, 1(2), 13-22. <https://doi.org/10.1177/160940690200100202>
- Morse, J. M. (2015). Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative Health Research*, 25(9), 1212-1222. <https://doi.org/10.1177/1049732315588501>
- Neuman, W. L. (2008). *Social research methods: Quantitative and qualitative approaches*. Pearson Education, Inc.
- Onwuegbuzie, A. J., & Leech, N. L. (2007). A call for qualitative power analyses. *Quality & Quantity*, 41(1), 105-121. <https://doi.org/10.1007/s11135-005-1098-1>
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage.
- Thomson, S. B. (2010). Sample size and grounded theory. *Journal of Administration and Governance*, 5(1), 45-52. <https://ssrn.com/abstract=3037218>

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