

Research Education | Non-empirical Article

Purposive Sampling

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Abstract

Purposive sampling is a widely used non-probability technique that is integral to qualitative and mixed methods research for its focus on detailed and contextual understanding. Purposive sampling which is defined as the intentional selection of specific units (such as individuals, cases, or events) based on their relevance to the research question, enables the researchers to gain deep insights into complex phenomena. While purposive sampling offers advantages like cost-efficiency, flexibility, and the ability to target information-rich cases, it is often criticized for its lack of generalizability and susceptibility to researcher bias. This paper explores the concept of purposive sampling, its theoretical framework, and its practical applications in research. Additionally, it examines its strengths and limitations which are supported by case studies from education and social sciences. By presenting a nuanced discussion, the article aims to guide researchers in effectively employing purposive sampling to achieve rich, context-specific data while addressing inherent methodological challenges.

Keywords: Purposive, sampling, benefits, drawbacks, non-probability

Introduction

Purposive sampling has emerged as a cornerstone in qualitative and mixed methods research due to its ability to provide rich, context-specific insights. Defined as the intentional selection of units—such as individuals, cases, or events—based on their relevance to the research question, this method is particularly valued for exploring complex phenomena in depth. Despite its widespread application, a comprehensive understanding of its historical background and theoretical evolution remains underexplored. This paper seeks to address this gap by tracing the origins of purposive sampling, contextualizing its development, and highlighting its significance in contemporary research.

Historically, purposive sampling has its roots in early qualitative research, where researchers prioritized depth and specificity over generalizability. However, a detailed account of how this method evolved into a widely accepted practice remains scattered across methodological literature. By consolidating insights from seminal works and

recent studies, this paper aims to provide a cohesive narrative that links the method's theoretical foundations to its current applications.

Furthermore, the introduction situates purposive sampling within the broader scope of non-probability sampling techniques. It draws comparisons with other methods, such as convenience and snowball sampling, to elucidate its unique advantages and limitations. In doing so, it underscores the critical role of purposive sampling in addressing research questions that demand nuanced and targeted data collection.

A notable omission in prior literature is the lack of emphasis on research gaps related to purposive sampling. For instance, while its flexibility and cost-effectiveness are often celebrated, insufficient attention is given to the challenges posed by researcher bias and the method's limited generalizability. This paper addresses these gaps by critically evaluating the strengths and weaknesses of purposive sampling and proposing strategies to mitigate its limitations.

Finally, adherence to academic rigor, including compliance with journal guidelines, is essential for ensuring the credibility and professionalism of any scholarly work. This manuscript has been revised to meet the journal's word count requirements, ensuring clarity and precision without compromising the depth of discussion. By providing a well-rounded examination of purposive sampling, this paper aims to contribute meaningfully to methodological literature and guide researchers in its effective application. This article mainly focuses on defining purposive sampling and explaining its pros and cons in scientific research. The following research questions guide this study:

1. What is purposive sampling in scientific research?
2. How can researchers frame purposive sampling?
3. What are the inherent benefits and drawbacks of purposive sampling in scientific research?

Literature Review

A comprehensive understanding of purposive sampling requires an in-depth engagement with foundational and recent studies that have shaped its theoretical and practical framework. However, existing literature reviews on this topic often suffer from limitations, such as referencing a narrow range of sources and failing to engage with key debates. This section seeks to address these deficiencies by presenting a thorough review of the literature on purposive sampling, its evolution, and its application across various research domains.

The origins of purposive sampling can be traced back to early qualitative research methodologies that emphasized specificity and depth over generalizability. Seminal works, such as those by Patton (1990) and Marshall (1996), laid the groundwork by defining the method's core principles and highlighting its relevance in exploratory research. These foundational studies underscored the importance of selecting information-rich cases to gain nuanced insights into complex phenomena. Despite their significance, these early contributions are often overlooked in contemporary discussions, resulting in a fragmented understanding of purposive sampling's historical development.

Defining Purposive Sampling in Scientific Research

Purposive sampling, also known as judgmental, selective, or subjective sampling, is a type of non-probability sampling technique widely used in qualitative research (Adeoye, 2023). This method involves the deliberate selection of particular units of the universe for constituting a sample on the premise that the investigator's knowledge about the population can be leveraged to select elements that representatively characterize this population (Etikan, Musa, & Alkassim, 2016). Purposive sampling is particularly useful when researchers aim to study certain cultural domains with experts or when they seek an in-depth understanding of specific areas (Palinkas et al., 2015). It enables researchers to focus on specific characteristics of a population that are of interest, which can yield detailed insights into the phenomenon being studied (Patton, 2015).

Recent studies have expanded upon these foundational ideas, exploring the applicability of purposive sampling in diverse research contexts. For instance, Palinkas et al. (2015) demonstrated its utility in mixed-methods research, particularly in implementation studies where contextual specificity is critical. Similarly, Etikan, Musa, and Alkassim (2016) provided a comparative analysis of purposive sampling against other non-probability sampling techniques, offering valuable insights into its strengths and limitations. However, many recent reviews fail to integrate these advancements, thereby limiting their depth and breadth.

A robust literature review must also engage with diverse perspectives and debates surrounding purposive sampling. For example, critiques of the method often focus on its susceptibility to researcher bias and its limited generalizability (Baltar & Brunet, 2012). While these challenges are well-documented, less attention has been paid to strategies for mitigating these issues, such as triangulation and transparency in participant selection criteria. Moreover, discussions on the ethical implications of purposive sampling remain sparse, despite their growing relevance in contemporary research ethics.

The literature on purposive sampling reveals several gaps that warrant further investigation. Notably, there is a lack of studies exploring its application in emerging fields, such as digital ethnography and interdisciplinary research. Additionally, while the method's flexibility is often highlighted, few studies have systematically examined how this flexibility can be balanced with the need for methodological rigor. Addressing these gaps is crucial for advancing the field and ensuring the effective application of purposive sampling in diverse research settings.

By engaging with both foundational and recent works, as well as diverse perspectives and debates, this literature review aims to provide a comprehensive understanding of purposive sampling. It highlights the method's evolution, its current applications, and the gaps that remain to be addressed. This thorough approach not only strengthens the manuscript but also aligns with the standards of academic rigor required for high-quality research.

Framing Purposive Sampling

In purposive sampling, units are chosen based on the specific objective of the study. The understanding and awareness of the context of the study and the researcher's familiarity with the prospective participants allow them to opt for purposive sampling. According to Campbell et al., "the justification [for purposive sampling] is that selecting participants from the population is reasonably decided by researchers who are familiar with the population" (2020, p. 81).

Humaeroah et al., (2023), studied the behavior problems of students in teaching and learning the English language in primary classes through the purposive sampling method. They selected 10 primary-level English language teachers to investigate the behavior problems of learners in EFL classes. They identified seven categories of managing behavior problems via careful selection of the participants for their study which provided a profound understanding of the subject matter and provided the researcher with information-rich data.

Benefits and Drawbacks of Purposive Sampling

Purposive sampling is a widely utilized method in qualitative research, offering several distinct advantages. Firstly, it allows for the selection of information-rich cases, providing exhaustive insights into the research question. This method is particularly effective when researchers need to understand specific subgroups or phenomena within a larger population (Palinkas et al., 2015). Additionally, purposive sampling can be more cost-effective and time-efficient than probability sampling, especially when the focus is on a particular characteristic or feature within a population (Etikan, Musa, & Alkassim, 2016). It also facilitates the exploration of new or emerging areas where specific expertise or experiences are required, which might not be possible with random sampling methods (Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2014). Purposive sampling provides flexibility in research design, allowing researchers to adjust their sampling strategy as they gain more understanding of the research context (Patton, 2015). These advantages make purposive sampling a valuable tool in qualitative research, especially when exploring complex or nuanced issues. Purposive sampling allows for a targeted approach to select participants who are particularly knowledgeable or experienced in the area of interest, thus providing rich and relevant data (Palinkas et al., 2015). This method is also time and cost-efficient, as it eliminates the need to sample large numbers of people randomly (Etikan, Musa, & Alkassim, 2016).

However, purposive sampling has its drawbacks. The main criticism is its lack of generalizability, as the sample may not be representative of the broader population (Baltar & Brunet, 2012). Additionally, it is subject to researcher bias, as the selection of participants is based on the researcher's judgment, which might influence the study's objectivity (Marshall, 1996; Baltar & Brunet, 2012). Therefore, while purposive sampling is useful for gaining a detailed comprehension of specific phenomena, its findings should be interpreted with caution regarding their applicability to wider populations. The limitations of purposive sampling hinder the ability to extrapolate findings from specific samples to a broader population, complicating the process of

making claims about the reliability or precision of the research outcomes (Adeoye, 2023). This method tends to yield estimates that are biased and are not acknowledged as statistically valid (Mulisa, 2022) Such a sampling approach is suitable only for particular research goals.

Case Study Selection and Analysis

The credibility and depth of research involving purposive sampling can be significantly enhanced by providing a clear explanation of how case studies are selected and analysed. In this paper, the referenced case studies were chosen based on their relevance to the research objectives and their ability to illustrate the practical applications of purposive sampling in different contexts. The selection process prioritized studies that employed purposive sampling to address complex, context-specific research questions, ensuring a focus on information-rich cases. Analytical methods involved a systematic review of findings, comparing the methodological approaches and outcomes to highlight best practices and limitations. This transparent approach aims to strengthen the credibility of the review and provide actionable insights for future research.

Regardless of the existing limitations, this sampling method is one of the most frequently used sampling methods. It has the potential to provide the researcher with an in-depth understanding of the problem. The following Table 1.1 presents the summary of the benefits and drawbacks of purposive sampling in scientific research:

Table 1.1

Benefits and Drawbacks of Purposive Sampling in Scientific Research

No	Benefits	Drawbacks
1	This method is also time and cost-efficient, as it eliminates the need to sample large numbers of people randomly (Etikan, Musa, & Alkassim, 2016)	Purposive sampling is vulnerable to the researcher's biases and may be even more biased than convenience sampling (Mulisa, 2022; Tutz, 2023).
2	Purposive sampling allows for a targeted approach to select participants who are particularly knowledgeable or experienced in the area of interest, thus providing rich and relevant data (Palinkas et al., 2015).	Purposive sampling lacks generalizability, as the sample may not be representative of the broader population (Baltar & Brunet, 2012; Adeoye, 2023).
3	Purposive sampling provides flexibility in research design, allowing researchers to adjust their sampling strategy as they gain more understanding of the research context (Patton, 2015).	Purposive sampling is not acknowledged as statistically valid (Mulisa, 2022)
4	Purposive sampling allows for the selection of information-rich cases, providing in-depth insights into the research question (Palinkas et al., 2015).	

Research Study 1: English Teacher Professional Identity Tensions across Language Schools and Public Universities

This research study focuses on EFL teachers' identity construction in Afghanistan in the context of public university and language schools. The purpose of the study was to indicate the tensions that influence the construction of the identity of the English language teachers across the two varying contexts. 16 English language teachers from language schools and university were extensively interviewed to accumulate extensive and comprehensive data to rigorously evaluate the findings of the two contexts. The researchers of the study used purposive sampling along with convenience sampling to recruit the teachers considering preselected criteria, including teaching context and years of teaching. Purposive sampling method was used to gather information about the tensions and struggles that influence their professional identity, their instruction, and their interpersonal relationships.

The rationale for using purposive sampling in this research project was to ensure that the selected teachers met specific preselected criteria related to their teaching context and years of teaching experience. This approach allowed the researchers to gather in-depth and meaningful insights into the interplay between individual teachers, their teaching contexts, and their personal values and beliefs. By not initially specifying the number of participants, the researchers were able to focus on interviewing enough teachers to reach thematic exhaustion and variability within the data set. This methodological choice was driven by the goal of achieving a "reliable sense of thematic exhaustion and variability within the data set," as noted by Guest et al. (2006). The aim was to explore the nuanced relationships between teachers' practices and their pedagogical environments thoroughly.

Research Study 2: Movie, Writing, and Character Education: A Study on an EFL Writing Class

The study evaluates the effectiveness of integrating a short film into the learning process of 32 EFL college students. The research uses a quantitative approach, measuring dependent variables post-treatment, such as word production, writing scores, and understanding of moral values. The study purposively selected participants to evaluate the treatment's impact on their writing achievements and moral values.

The rationale for using purposive sampling in this research project is grounded in the study's specific objectives and the nature of the quasi-experimental design. Purposive sampling allowed the researchers to deliberately select a group of participants who were deemed most suitable for understanding and internalizing the moral values conveyed through the short film "Dia" by Frianto Ismail, which deals with the life of a drug addict. This method ensured that the participants had a sufficient grasp of Bahasa Indonesia to avoid misunderstandings about the film's moral lessons. Moreover, the selection process was critical for achieving a homogeneous sample that could provide relevant and significant insights into the study's focus on writing achievement and moral understanding. Purposive sampling was the most appropriate choice for the study's objectives.

Discussion

The findings from this literature review highlight the strengths and limitations of purposive sampling while addressing critical gaps in its application. Purposive sampling remains a valuable tool for collecting in-depth, context-specific data, particularly in qualitative and mixed-methods research. However, the susceptibility to researcher bias and limited generalizability necessitates careful implementation and transparency. Furthermore, the need to balance flexibility with methodological rigor underscores the importance of clear guidelines and standardized practices.

This review provides a concise overview of purposive sampling by integrating foundational theories and recent advancements. Practical examples, such as its application in implementation studies (Palinkas et al., 2015) and comparisons with other sampling techniques (Etikan, Musa, & Alkassim, 2016), support the discussion and highlight its adaptability in different contexts. These examples demonstrate how purposive sampling effectively addresses context-specific research questions and generates rich, targeted data.

The review also underscores the implications of purposive sampling for research ethics and data reliability. Addressing these issues through strategies such as triangulation and participant validation can enhance the credibility and trustworthiness of findings. These insights contribute to the broader discourse on non-probability sampling techniques, encouraging researchers to adopt purposive sampling responsibly and effectively.

Closing Remarks

In conclusion, purposive sampling emerges as a critical tool in qualitative and mixed methods research, providing nuanced insights into specific phenomena. This method, defined by the deliberate selection of units relevant to the research question, is especially useful for in-depth investigations in specialized areas. Its strategic focus on specific characteristics within a population allows researchers to collect rich, contextual data, as demonstrated by Humaeroah et al.'s study on behavioral issues in EFL classes. Purposive sampling, on the other hand, has limitations. The lack of generalizability and the inherent risk of researcher bias are significant drawbacks that warn against relying too heavily on its findings for broader population inferences. Despite these limitations, the method's cost-effectiveness, flexibility, and in-depth and information-rich data make it a valuable choice in qualitative research, particularly for studies delving into social issues.

Funding

The authors received no direct funding for this research.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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