

## UNDERSTANDING QUALITATIVE RESEARCH DESIGNS AND PRACTICES IN EDUCATIONAL RESEARCH

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### ABSTRACT

This reflective paper explores the intricacies and transformative experiences involved in conducting qualitative research in educational settings. Framed within the constructivist and interpretivist paradigms, it unpacks various qualitative designs including phenomenology, case study, ethnography, grounded theory, and narrative inquiry. Through personal engagement with these methodologies, the paper reflects on their theoretical underpinnings and practical applications, particularly in the context of student learning during the pandemic. Key challenges encountered range from ethical dilemmas and data overload to researcher bias and design ambiguity and are critically analyzed in relation to comparing qualitative research designs in educational research and adopting qualitative data collections techniques based on the main characteristics of research designs. The paper emphasizes the humanistic nature of qualitative inquiry and highlights the importance of reflexivity, empathy, and adaptability in capturing the voices and lived experiences of participants. Ultimately, it underscores qualitative research as both a rigorous academic pursuit and a deeply personal, ethical commitment to understanding the educational landscape.

**Keywords:** *Qualitative research, phenomenology, educational inquiry, data collection, reflexivity*

### INTRODUCTION

Educational research is simultaneously a philosophical process and a methodological process. Creswell (2021) highlights that "Research is a process of steps used to collect and analyze information to increase our understanding of a topic or issue." Unlike the quantitative method of research, qualitative research presents ways to capture and examine human experiences and comprehending those experiences, as well as acknowledging the contexts in which the experiences take place. The purpose of this reflective piece is to clarify the understanding of qualitative research and the challenges faced during the conduct of a qualitative research study, with reference to comparing qualitative research designs in educational research and adapting qualitative data collection techniques based on the characteristics of research designs.

Even in healthcare services, increasing emphasis has been placed on patient centeredness and understanding patient's experience (Bazen et al., 2021). Qualitative research is an organized and subjective way of examining descriptions of life experiences and creating

meaning. In this methodology, unlike quantitative research, numbers and statistical tests do not indicate a phenomenon but qualitative research aims to illuminate reality through the collection of qualitative finite data, or rather, the methods of data collection can be understood as interviews, focus groups, observations, or document analysis (Creswell, 2013). The main purpose is to understand how an individual describes his or her experiences and the meanings derived from that experience.

A qualitative research is a form of social responsive action that focuses on how people interpret and make sense of their experiences to understand the social reality of individuals in order to gain deeper understanding of the surrounding circumstances (Flick, 2014 in Muzari et al., 2022). Therefore, qualitative research comes out of various paradigms, such as constructivist and interpretivist paradigms. Under these paradigms, qualitative research assumes that "reality is socially constructed" and that knowledge is co-created between the researcher and the researched. Qualitative research is based on inductive research, which begins with observations to develop a theory or interpretation, whereas quantitative is based on deductive research, which is based on coming up with hypotheses for testing (Creswell, 2013).

Qualitative research offers more than just a toolkit. It offers an opportunity to view the world through the experiences, stories, and perspectives of others. In education research, qualitative research gives us the opportunity to listen deeply and to critically reflect about the human experiences that shape learning, teaching, and institutions. Over the years, researchers have developed a strong appreciation for the complexity of qualitative research designs, and each has its unique relevance and purpose depending on what is to be understood and investigated.

## **Types of Qualitative Research**

### ***Phenomenology***

One of the most personal approaches to research, phenomenology ties into the lived experience of participants. Rather than treating the participants like data points, phenomenological research considers participants as meaning-makers instead. Stolz (2023) provides three popular and influential approaches to phenomenology as a qualitative research method in educational settings, which are the descriptive phenomenological method, hermeneutic phenomenology and interpretative phenomenological analysis. These three approaches may be applied to different contexts and purposes within phenomenological studies. Teacher researchers enjoy using this design and have found it extremely meaningful and powerful, particularly when examining student anxiety or teacher burnout, both domains that are informed by emotions and personal histories. It affords the researcher an opportunity to describe the essence of an experience, as well as potentially provide insights that only numbers cannot provide.

### ***Case Study***

Then there is the case study approach, which provides an in-depth look at a particular person, group, or setting. Case study research can be classified into three categories, exploratory, descriptive and explanatory. Exploratory case study involves studying a phenomenon to gather data related to the researcher's interests, descriptive case study is studying a phenomenon in a

natural setting and collecting data as it happens, and explanatory case study is the act of closely studying data hidden within a phenomenon (Naz et al., 2022). This design is especially useful when the focus is to understand a phenomenon within its real-life context. For instance, a case study might explore how a specific school implements inclusive education or how a particular teacher adapts pedagogy for remote learning. What many find compelling about case studies is their ability to weave together various data sources from interviews, documents, observations into a cohesive story that reflects complexity and nuance.

### ***Ethnography***

On the other hand, ethnography asks the researcher to take on the role of an observer and sometimes even a participant in a cultural or social setting. It is immersing oneself in the day-to-day lives of a group to understand their norms, values, and interactions. This approach has anthropological backgrounds and different cultural parameters such as religious, geographical, social and so on which can be considered (Taherdoost, 2022). While it demands time, patience, and ethical sensitivity, ethnography can reveal deep-rooted cultural patterns, especially in school communities or classroom microcultures. It helps research understand not just what people do, but why they do it.

### ***Grounded theory***

When the goal is to generate new understandings or theories, grounded theory becomes particularly valuable. Often used in educational research, this design doesn't start with a predefined hypothesis. Instead, it allows theory to emerge from the data itself. It is an organic process where data is collected, coded, compared, and analyzed until a theory begins to take shape. Approaches in grounded theory are well suited for studying learning and cognition, as well as classroom interactions and processes since learning is often individualistic and contextual, therefore new theories and observations are often made in educational settings (Stough & Lee, 2021). Grounded theory can be exciting because it empowers the data to lead the way, encouraging flexibility and creativity in interpretation.

### ***Narrative research***

Narrative research focuses on the stories individuals tell about their lives. These stories are not just anecdotal, but also carry cultural, emotional, and psychological significance. It can be a first-generation university student recounting their journey, or a veteran teacher reflecting on decades in the classroom. According to Taherdoost (2022), the narrative strategy is focused on emphasizing the characters so that the focus is on discovering the sequences in the stories. Narrative research honors the storyteller's voice and reminds readers that education is not just about curriculum and outcomes, but also about people, their struggles, hopes, and transformations.

Each of these designs has a distinct role in educational research. Choosing the right one depends on the research purpose, the questions being asked, and the depth of understanding the researcher hopes to achieve.

## **Data Collection Methods in Qualitative Research**

Alongside choosing a design, the process of data collection and analysis in qualitative research is equally important, and equally human. Unlike quantitative studies, which often follow strict procedures, qualitative data collection is flexible and iterative. It evolves as the researcher learns more about the topic and the participants.

### ***Interviews***

A common qualitative data collection technique is through interviews, which can be structured, semi-structured, or unstructured. Semi-structured interviews provide a loose framework while still allowing the conversation to flow naturally. According to Bazen et al. (2021), interviews can maximize elicitation of rich responses from the study subjects, as simple yes or no questions or questions often used in quantitative methods that usually ask how much or how many are avoided. By following an interview guide composed by the research team and listing questions to be asked, consistency of data collection is boosted, and interview answers can reveal unexpected insights, especially when participants feel comfortable and heard.

### ***Observations***

Another valuable method is observation, particularly in classroom-based studies. Events, interactions, processes or settings can be documented in order to answer research questions. Observations can be conducted using two common approaches: nonparticipant observation and participant observation. As participant observers, researchers observe and at the same time also interact with the participants, thus the researchers' own actions are also considered data (Leko et al., 2022). In an education setting, teachers or classroom instructors get to experience how students interact, how teachers respond, and how learning unfolds in real time can offer layers of understanding that go beyond what people say in interviews.

### ***Document analysis***

Basically content analysis, document analysis refers to analysis of content including words, pictures, symbols, ideas or messages that can be communicated (Muzari et al., 2022). Documents and artifacts are permanent products, materials or objects, such as texts, photographs, reports, websites, letters, emails, policies and records. Research in education utilizes this method to involve studying existing materials that provide a silent but powerful narrative of how education is enacted and experienced. Some qualitative methods such as content or document analysis rely on documents and artifacts exclusively, but more often documents and artifacts are collected in conjunction with other data sources like interviews and observations (Leko et al., 2021).

## **Qualitative Data Analysis**

Qualitative studies seek to answer 'how' and 'why' rather than 'what' or 'how often' questions (Mattimoe et al., 2021). The analysis of qualitative data is where patterns begin to emerge. This

involves coding, theme development, and techniques such as thematic analysis or the constant comparative method. Analysis is not a linear process but includes a back-and-forth journey of reading, reflecting, comparing, and refining. In phenomenological research, using strategies such as phenomenological reduction and having an interpretive attitude to discover structure and meanings of an experience are mainly used when data analysis is being conducted. (Alhazmi & Kaufmann, 2022).

What makes the qualitative data analysis process especially meaningful is the role of reflexivity. Qualitative researchers often bring their own perspectives, assumptions, and experiences into the study. However, White and Davis (2023) assert that reflexivity itself can introduce a layer of subjectivity and potentially influence research findings. Thus, being reflexive means acknowledging biases and continually checking how they may shape interpretations. In essence, researchers need to be honest with both the participants and also themselves.

Qualitative research in education is a deep human endeavor. It values the voices of those often unheard, seeks meaning in everyday experiences, and prioritizes understanding over measurements. Whether exploring a teacher's struggle, a student's triumph, or a classroom's hidden culture, qualitative research is a reminder that education is not just a system, but a story, unfolding one voice at a time.

### **Challenges Faced while Conducting Qualitative Research in a School Setting during the COVID-19 Pandemic**

Conducting qualitative research with school students can be both a rewarding and humbling experience. Reflecting on an investigation of how school students engaged with online learning platforms during the pandemic, several obstacles emerged with substantial methodological, logistical and ethical challenges. Some obstacles were anticipated while others were unforeseen. Both shaped this researcher's development in terms of flexibility, sensitivity and reflexivity.

#### ***Ambiguity in research design selection***

Selecting an appropriate qualitative research design proved to be a significant initial hurdle. A case-study approach was first considered as a way to obtain detailed perspective on a particular class or school environment. According to Thomson and Lindo (2024) narrative interviewing is an appropriate scaffolding communication technique for youths as it is conducted in the form of storytelling which is a safe and familiar modality for children and adolescents. However, preliminary informal conversations with students revealed that the main interest lay in their personal narratives, including their struggles, emotions and motivations while learning from home. This discovery led to a shift towards a phenomenological approach which centers on individuals' lived experiences and the meanings they make of them. The shift provided a deeper engagement with the philosophical underpinnings of phenomenology, particularly the notion that meaning is co-constructed between researcher and participant. It was not just about gathering data, but about truly listening and making sense of students' perspectives in their own words.

### *Adapting data collection techniques*

The data collection stage required considerable adaptation in response to pandemic-related constraints. Originally planned face-to-face focus groups in a school setting were rendered impossible, necessitating a rapid transition to online platforms. Several complications followed including inconsistent student access to stable internet or personal devices, the need to coordinate with the school for alternative arrangements such as shared devices during break periods, and challenges in building rapport online, given student reluctance or discomfort with camera-based interactions. As stated by Newman et al. (2021), online platforms have the potential to provide a false sense of privacy and security to participants and researchers, so both need to be more mindful than in a face-to-face setting. To respond, the interview protocol was modified to be more conversational and less rigid, and allowances were made for written responses as an alternative. These adaptations reflect the importance of methodological flexibility, especially when engaging adolescent participants in constrained environments.

### *Time and resource constraints*

The demands of conducting a qualitative research in a school context frequently exceeded initial estimations. Scheduling interviews proved to be the most logistically challenging as students are constrained to school hours, co-curricular commitments and different comfort levels within the research process. Furthermore, after recording, the process of transcribing the content of the interviews which also included code-switching between English and the students' native languages proved to be time-consuming. Attention to linguistic nuances, such as tone, pauses, extended silences and connotations from word-choices, was integral to preserving authenticity but increased the intensity of the analysis. This aligns with research regarding qualitative methods which are deemed more time consuming with data collection and analysis often requiring more time due to the in-depth nature of the data (Mohanasundari et al., 2023).

### *Subjectivity and researcher bias*

Working closely with school students can heighten awareness of researchers' own biases. In this research, the researcher's previous teaching experiences unintentionally led to interpreting students' responses through the lens of what teachers thought learning should look like. It had to be reminded that the role of a researcher in qualitative research was not to evaluate but to understand emerging phenomena through the findings. To manage this, a research journal was kept where reflections of reactions after each interview were recorded. Preliminary findings were also shared with peers and mentors for peer debriefing, which helped keep interpretations in check. These reflective practices are consistent with recommended strategies in qualitative inquiry (Goodman-Scott et al., 2024) and as an ongoing self-reflection for qualitative researchers to be more mindful and respectful of participants' voices.

### *Ethical dilemmas*

Conducting research with minors brought serious ethical responsibilities. Gaining informed consent from both students and their parents was a lengthy process, and some were

understandably hesitant. Researchers need to be transparent about how the data would be used and reassure participants and their parents that identities would remain confidential. Montreuil et al. (2021) state that certain context or mechanisms undertaken during research with children participants might lead to power differentials between the children (the participants) and adults (the researchers) that might not be conducive to meaningful participation. During interviews in the study conducted, some students shared emotional stories, like feeling invisible during online classes or being overwhelmed by household responsibilities. In such moments, the researcher's role shifted towards that of a compassionate listener and witness. However, boundaries had to be maintained and the researcher needed to abstain from intervening or offering advice or comments outside the scope of the study in order to keep the research findings objective. These moments underscored the emotional weight that comes with qualitative research.

### ***Data overload***

An often unexpected challenge usually observed with qualitative research is the volume and richness of data that can be generated. In this research conducted, each student's story was rich and layered, and during analysis it is often difficult not to want to leave anything out. But multiple interviews, extensive field notes from observation, memos and transcripts quickly became difficult and too overwhelming to manage. Debates in qualitative research continue to revolve around determining adequate sample sizes, since "too few data cannot support convincing conclusions, whereas too many can produce too much materials to analyze effectively and expeditiously" (Bryman, 2012, as cited in Bekele & Ago, 2022, p. 49). While manual coding had been planned initially, the volume of the collected data required the inclusion of NVivo, a qualitative analysis software, which in itself required a learning curve to use. Even so, thematic interpretation remained labor-intensive, requiring the process of sifting through unstructured data requiring judgement, patience and careful interpretation. Every quote included in the final report had to serve a purpose and every theme identified was ensured to have resonated with the real experiences of participants.

## **CONCLUSION**

Qualitative research in educational settings, especially with school students, is deeply human, unpredictable, and often emotionally charged. It demands not just academic skill, but also compassion, adaptability, and integrity. Through a qualitative research experience at a school during the pandemic, it was discovered that qualitative inquiry is not about finding quick answers but about asking the right questions and being willing to listen deeply. The challenges faced, whether in design selection, data collection, ethical negotiation, or analysis, pushed the researcher to grow academically but also personally.

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