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Critical Analysis of Phenomenological Research Design in a Qualitative Research Method

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Abstract


The research method and design have close relationships and are contained in each other. This study critically analyses phenomenological research design in a qualitative research method, intending to expose scholars in management, humanities, business, and social sciences to the dynamics of qualitative research methods and phenomenological research design, especially when conducting phenomenological research. A qualitative phenomenological research design is used to describe previous and present experiences of participants. This study further explains the research design, data collection methods, sample size, data analysis techniques, and roles of researcher, among other areas within the qualitative phenomenological research design, such that the outcome of qualitative phenomenological research will be credible, trustworthy, and dependable.


Keywords: Phenomenology, Research design, Research method, Qualitative research.

1 | Introduction

Researches in management, humanities, business, and social sciences are achieved by applying the right methodology. Globally, scholars from all these identified disciplines often shy away from the fundamentals of research methods when embarking on original research. The beauty of every study is the reproduction or replication of such similar research based on a clearly defined methodology [1]. This study critically analyses phenomenological research design in a qualitative research method, intending to expose scholars in management, humanities, business, and social sciences to the dynamics of qualitative research methods and phenomenological research design, especially when conducting phenomenological research. In addition, the study will explain the research design, data collection methods, sample size, data analysis techniques, and researchers' roles, among other areas within the qualitative phenomenological research design, such that the

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outcome of qualitative phenomenological research is credible, trustworthy, and dependable. It is believed that this study is capable of giving a plausible result.

2 | Literature Review

2.1 | Research Methods

According to Earl et al. [2], research is a systematic inquiry that involves inductive and deductive methods to describe, explain, predict, and control the observed phenomenon. It is a thorough consideration of a study concerning a particular issue or problem employing scientific methods [3], which is best achieved by narrowing specific issues or issues into questions or questions to provide answers to them.

Furthermore, research methods are the approaches, techniques, or processes employed to collect and substantiate data analysis to discover new insights, information, and robust understanding of a particular topic [4]. They are specific procedures for data collecting and analysis [5]. There are three types of research methods, they are:

- I. Qualitative research method.
- II. Quantitative research method.
- III. Mixed research method [6].

The qualitative research method is usually employed to understand a phenomenon better. In this case, Creswell and Poth [7] noted that researchers subject the phenomenon to open discourse and open-ended questions to find out what is happening or has happened. Also, qualitative research is suitable when the research questions in a study deal with the aspect of "what question" in an inquiry manner. Qualitative research is adopted in studies that deal with awareness, insights, knowledge, experience, and policy strategy implementation.

For quantitative research, Jasti and Kodali [8] noted that researchers employ closed-ended questions to elicit numeric data and to test hypotheses (statistical analysis) among variables (dependent and independent variables). According to Stone and Miller [9], the research questions involved in a quantitative research method do not give enough room for respondents' perceptions. It is connected to applying some socio-economic and demographic variables such as experience, gender, profession, age, and income.

For mixed-method, Delvin and Steven [3] noted that researchers employ the components present in both qualitative and quantitative research methods. According to Fetter et al. [10] and Yin [6], a mixed research method is an option of integrating qualitative research method (explorative technique) and quantitative research method (analytical technique) to realize effective results.

A qualitative research method is suitable if a study does not involve hypothesis testing. In a situation where a study will adopt hypothesis testing, a quantitative research method will be suitable. A mixed research method will be suitable if a study involves both components of qualitative and quantitative research methods. A disadvantage of qualitative research is the lack of statistical generalization of the findings. The types of research methods are summarized in *Table 1*.

Table 1. Summary of research methods.

Indices	Qualitative research method	Quantitative research method
Nature of research questions	“What” question	Not “what”
Nature of questionnaire	Open-ended	Closed-ended
Nature of study	Awareness, knowledge, insight, experience, policy strategy implementation	Examination, relationship, numerical explanation
Tools or Data collection	Interview, focus group (discussion), observation, oral history, life history, and interrogation based on document analysis	Surveys and questionnaires, document screening (policy), meta-analysis, and experiment.
Sampling	Non-probability	Probability
Statistics	Descriptive	Inferential
Technique	Non-parametric	Parametric

The beauty of quantitative research methods is that they can be employed to analyze and describe large collections systematically and to generate statistical analysis, which can be generalized to form a basis for knowledge and replication if and only if the samples are randomly sampled in case of a large population. However, it may not be easy because it requires larger samples. Likewise, the beauty of the qualitative research method is its flexibility (often adjustable when developing new knowledge), and is conducted with small samples. However, it cannot be analyzed statistically or generalized to larger populations.

2.2 | Research Design

Research design is a framework or structure for planning research and answering or justifying research questions [11]. A research design implies the decision-making regarding the type of data measurement, timescale and location of data gathering, nature of participants or respondents, data sources, variables, and methods of data collection and analysis. To identify the most suitable research design, there is a need to x-ray the merits and the demerits, the study's objectives, the availability of data, and the costs linked with the study. All these should be considered when determining the research methods [12], [6]. It is essential to note that the research design used in a quantitative research method differs quite from the research design used in a qualitative research method.

2.2.1 | Research designs used in quantitative research method

The research designs used in the quantitative research method are experimental and non-experimental; they are explained below.

Experimental research design

According to Brown and Lord [13], this is done in a laboratory environment where variability is controlled. The significant advantage of experimental design is its potential to establish causality. It is possible to infer that an activity produces the resultant condition when one variable affects another. The setting that experimental techniques create allows for the study and measurement of variables' distinctive features or qualities. The potential bias that might arise in natural situations when variables function as components of a more extensive system is reduced in laboratory settings.

It becomes challenging to separate specific contributions and measures for some variables while operating within a system. However, it has been noted that experimental methods exclude the variable from its native environment, where it may not respond correspondingly. By lessening or eliminating the interaction between other factors, experimental designs have the potential to skew the behavior of the variables.

Non-experimental research design

Observation, surveys, and other non-laboratory techniques for gathering numerical data fall under the category of non-experimental designs. Quantitative research methods are useful for measuring processing time, supply chain efficiency, product supply and demand, and price elasticity. As an illustration, the shift from typical linear supply chain processing to Internet-based ordering was measured [14].

Utilizing surveys, one may get data on variables from a population's members. Surveys have been used to gather marketing data, political polling behavior, and other helpful data. When field surveys are used to collect data, external validity improves. Because the results are relevant to different situations and people, external validity suggests that the findings will be generalized to a broader population [15]. In surveys, data is gathered through questionnaires and organized interviews. Structured interviews, which ask the identical questions of every participant without exception, are employed in quantitative research methods. Structured interview questions aim to prevent prejudice and preserve consistency [16].

2.2.2 | Research designs used in qualitative research method

The research designs used in the qualitative research method are narratives, ethnography, grounded theory, case study, and phenomenology research designs; they are explained below.

Narratives

This form of research involves asking individuals to share stories about their lives and experiences regarding a particular issue [17], [16]. Combining the chronological events of the tale with the researcher's own experience is the aim of the narrative research method. Documents, media, and historical research may be used to enhance narratives. Regarding counseling, Berrios and Lucca [17] noted that notable individuals' oral histories add significantly to the field's historical record.

Ethnographies

The ethnographic method is the collection of observational data for a particular time from a set cultural group in their natural environment [16]. According to Rudkin and Deo [18], such a method is the study of human cultures. Rudkin and Deo [18] opined that ethnographic research design involves non-numerical and context-specific data in an unrepeatable manner. However, observable data alone does not have to be the exclusive focus of ethnographic research. An ethnographic choice model developed by Christensen et al. [19] was used to forecast at least 80% of participants' behavior using data from 20 to 60 interviews with small samples of people. The ethnographic model entails five processes, which are:

- I. Identify and select the behavior to be examined, and then a convenience sampling method should be used to target participants.
- II. Select the decision criteria.
- III. Create a hierarchical decision model using the data from the previous two steps.
- IV. Test the model on an independent sample.
- V. Validate the model by asking why people behaved in the manner that they did [19].

When "if-then" statements and judgments requiring a "yes" or "no" response were used, the ethnographic model will perform best. The fact that ethnographic studies do not rely on representative samples is one of its disadvantages, as responses obtained from a few participants cannot be used to determine the entire population. However, it has been identified that individuals are not the same, and as such, the narratives and interviews gathered through ethnographic research depict reality [20].

Grounded theory

Grounded theory is employed to develop theory by drawing on new patterns that emerge from the perspective of research participants [16]. In this case, the researcher does not complete the literature review before starting

the investigation, unlike the quantitative technique. The literature is consulted as part of an iterative data-gathering process [21]. Instead of following some guidelines and protocols, data analysis, in this case, will determine the next process. Based on the findings of previous data collection, the researcher has to conduct many survey waves or interviews to get the necessary information [22].

According to Creswell [16], two major characteristics of grounded theory are collecting data from various groups to emphasize similarities and contrasts between data and the gathering process. The researcher must actively introduce personal prejudice. Grounded theory researchers choose informants most likely to contribute early information to define population sample and survey questions, as many approaches predefine sampling populations [23].

Case studies

This requires thoroughly comprehending the individuals involved, including occasions, actions, emotions, and sentiments that arise throughout certain experiences and times. A case study is an empirical inquiry investigating a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not evident [24]. A case study is connected with triangulation. Woodside & Wilson [24] employed many techniques that facilitated triangulation. The triangulation methodology comprised the researcher’s firsthand observation of the case in its natural setting, participant questioning for clarity and interpretation, and document analysis to support and elucidate conclusions. These procedures and techniques help participants thoroughly understand the questions and topic under discussion [24].

Phenomenology

Phenomenology is primarily a way of thinking that uses perception to find meaning. It is not a type of research design that offers a set of norms and regulations for investigation. Based on phenomenology, experience extends beyond what can be seen by the senses [25]. Perception, intuition, and thought processes are used to interpret experience. It is thought that human awareness is the only thing that gives the world meaning and that consciousness has direction and purpose. According to Budd [25], phenomenology explains intentionality because the perception of humans is usually guided and tends towards a particular direction.

The researcher becomes a participant in the phenomenological research by employing self-perceptions of the world. Phenomenology is never considered finished since every human being is alive, and their life is always changing. Phenomenology can also be attained through narrative sharing. Kuper [26] asserts that stories can be a vehicle for communicating, processing, and presenting concepts, structures, and implicit knowing-acting experiences. The pictorial summary of the research method and research design is shown in *Fig. 1* below.

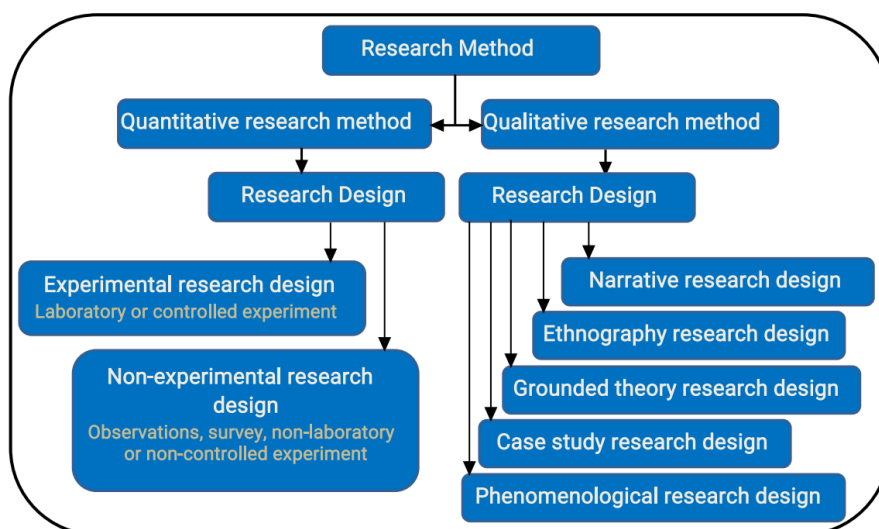


Fig. 1. Pictorial summary of research method and research design.

As shown in *Fig. 1*, the research design that falls under the quantitative research method can also be referred to as quantitative research design. In addition, the research design that falls under the qualitative research method can also be referred to as qualitative research design. For instance, qualitative phenomenological research design implies that the research method is qualitative while the research design is phenomenology. This applies to other categories.

3 | Critical Analysis of Qualitative Phenomenological Research Design

3.1 | Principle of Phenomenology

Phenomenology is a Western cultural philosophy that emerged in response to the notion that scientific methods may be used to manipulate human behavior [27]. The phenomenological research design is typically used since behavioral data are difficult to quantify because human behavior cannot always be predicted [28]. This study is deeply rooted in the critical analysis of qualitative phenomenological research design.

Wehei [29] claims that qualitative phenomenology research delves deeper into reality to unearth common life experiences and examines the researcher's viewpoint as an obvious event. This type of research design also enables the researcher to perceive a particular phenomenon freshly [29].

3.2 | Sample Size

In qualitative research, there are no restrictions on sample size [30]. Depending on what the researcher hopes to investigate as the aim [31]. Because the qualitative study aims to characterize, comprehend, and elucidate a human experience, participants who might potentially add to the research will be chosen [32]. Purposive sampling is usually employed in phenomenological studies [33].

3.3 | Researchers' Role in a Study

The major role of a researcher in qualitative research is to act as the key instrument for gathering data and data analysis [34]. Pens, laptops, digital mobile phones, and audio recorders are a few tools utilized for data collection in a qualitative study. Participants' information is appropriately collected in a setting that is devoid of distraction [28].

3.4 | Data Collection

Initially, a comprehensive analysis of previous research should be carried out. The American Education Research Association's high ethical requirements for human research study will be ensured by requesting ethical permission from the school [7]. Immediately after the ethics approval, the recruitment of potential participants commences.

Audio or video tape is typically used in data-collecting procedures that align with phenomenological methodologies. A consent form is given following a potential participant's expression of interest in a study. The study's objectives, advantages and disadvantages, and any hazards are all included in the permission form. There will also be guarantees of secrecy and privacy. Email correspondence and the audio recording of the in-person interview provided means of participant identification [34]. This is needed to identify the response of each participant.

3.5 | Data Analysis

Determining themes and characterizing information elicited are part of qualitative data analysis [29]. The qualitative research method aims to accurately interpret the data and sectionalize the data to produce themes. Data contributions to knowledge are made possible by identifying themes [35]. Given that human behavior

is not always predictable regarding numerical data, a phenomenological qualitative research method is suitable to comprehend human experience [28].

Responses in the form of audio or video are usually analyzed thematically. Some could use an application called NVivo that requires a password to access. This application organizes, examines, and identifies recurring themes in qualitative data for academics working in this field. It supports collecting, analyzing, and discovering insights in unstructured or qualitative data, such as open-ended survey responses, journal articles, social media posts, and online content. Deep levels of analysis on small or large volumes of data, such as open-ended interviews, are necessary [36].

After audio-taped interviews are transcribed, the data may be coded and categorized to identify themes using content analysis [36]. When analyzing data from audio-taped and transcribed chats, the process often entails grouping similar statements or themes and calculating the number of declarations made in the assigned categories.

3.6 | Trustworthiness

Qualitative research is uniquely positioned to provide research directly tied to human experience through process-based, narrative, and storied data [16]. Even if the tale is linked to the extent of a person's faith in another, people nonetheless learn a great deal from the experiences of others [37]. Similarly, developing trust is essential in qualitative phenomenology research to communicate accurate results to study participants and readers [38].

The various ways to justify factuality, accuracy, honesty, and truthfulness in a research process is through trustworthiness.

Crowe and Sheppard [39] established four criteria of trustworthiness for a qualitative study, they are:

- I. Credibility.
- II. Transferability.
- III. Dependability.
- IV. Confirmability.

Credibility

The ability to be believed, trusted, and persuaded is referred to as credibility [40]. According to Creswell and Poth [7], validation is synonymous with believability in qualitative research. In qualitative research, triangulation is typically used with several approaches or data sources to understand phenomena [41] entirely. According to Lincoln and Guba [42], triangulating uses multiple field-based information sources or procedures to identify patterns consistently.

According to Bialon and Coke [41], one of the main drawbacks of qualitative research is that conclusions are often drawn based on the researcher's opinions and lack of rigor. As a result, it is essential to carry out several tasks to ensure that a certain study is reliable, accurate, and valid [35]. Credibility, also known as internal validity, is maintained by actively participating in the data collection; this will guard against misunderstandings [7].

Credibility can be employed in the interview questions and responses from participants in a qualitative study. This can be achieved through review and re-evaluation. The use of inclusion and exclusion criteria also enhances credibility. The use of audio tape also enhances credibility [41].

Dependability

Peer debriefing is needed to verify the reliability and dependability of the study [41]. The services of peers should be sought to ensure quality regarding overall research, methodology, data, interpretations, and final report. The methodology of a study should be able to reproduce another study [41].

Transferability

Descriptions and patterns of a study context may apply to further similar studies [40]. Literature sources should be analyzed to understand other qualitative studies [40]. Transferability can be realized through evidence that findings apply to other contexts, findings, and situations [37].

Confirmability

According to Stanfors et al. [40], this is the extent to which more people might verify, concur, or corroborate the findings. Researchers working on a specific study should record practical methods that may be utilized to double-check and verify research data [39]. Subjectivist viewpoints should also be disregarded. The findings should be based solely on information elicited from participants; this is needed to avoid bias.

3.7 | Ethical Considerations

Respondents participating in a phenomenological study may be volunteers with or without compensation, as the researcher decides. Before initiating or interacting with participants, they will self-identify and ascertain whether they meet the requirements. One of the criteria for self-identifying is age (depending on the nature of the study). Informed consent should be made available to all participants, and the merits and demerits of participating in the study should be clearly outlined. The informed consent should also include the study's purpose and any possible confidentiality risks. Lastly, the data elicited from participants should remain confidential without access to intruders.

4 | Conclusion

The research method and research design were critically analyzed in this study. The study explained the application of research designs within the quantitative and qualitative research methods, specifically emphasizing phenomenological research design in a qualitative research method. The Western cultural philosophy of phenomenology emerged in response to the notion that scientific methods might manipulate human behavior. The phenomenological technique is typically used because it is difficult to quantify behavioral data, and human behavior cannot always be predicted. The critical examination of qualitative phenomenological research design forms the foundation of this investigation.

Qualitative phenomenology research design delves deeper into reality to reveal common life experiences while exploring the researcher's view of the event as evident. Additionally, this kind of study methodology does allow a researcher to view a certain occurrence in a new light. Trustworthiness in qualitative research indicates the researcher's ability to guarantee quality and rigor. Transferability (generalizability or external validity), credibility (internal validity), dependability (reliability), and confirmability (construct validity or objectivity) are examples of qualities that make something trustworthy.

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Author Contribution

AOA: Conceptualization, Writing – original draft, Supervision.

OTL: Resources, Writing – review & editing.

The authors read and approved the final manuscript.

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Data Availability

Not applicable.

Conflicts of Interest

The author declares that there is no competing interest.

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