

# Demystifying qualitative research design for final year undergraduate students in education and social sciences

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## Abstract

In this paper we distinguish between qualitative research and quantitative research design. Quantitative research is based on positivist approaches that originated in the natural sciences such as biology, chemistry, physics, geology, and many others. These early forms of research were concerned with investigating things which we could observe and measure in some way. Such observations and measurements can be made objectively and repeated by other researchers. Much later along came researchers working in the social sciences: psychology, sociology, anthropology and many other human studies. They were interested in studying human behaviour and the social world inhabited by human beings. They found increasing difficulty in trying to explain human behaviour in simply measurable terms. Measurements tell us how often or how many people behave in a certain way but they do not adequately answer the question 'why?' Research which attempts to increase our understanding of why things are the way they are in our social world and why people act the ways they do is 'qualitative' research. Qualitative methods are more interpretative, historical, and ethnographic than are quantitative approaches. There are many methods of qualitative research designs, but in this paper we explore three specific types of qualitative research design: phenomenology, ethnography, and case study.

**KEYWORDS:** quantitative research, qualitative research, ethnography, phenomenology, case study, education, social sciences.

## 1. Introduction

There are broadly two approaches to research design: quantitative research and qualitative research (Musingafi and Hlatywayo, 2013). Quantitative research design (based on positivism) was the generally accepted research design until the early 1980s, when the 'paradigm wars' between advocates of quantitative and qualitative research reached a new peak (Guba, 1990; Tashakkori and Teddlie, 1998). During the 1980s, many quantitative and qualitative researchers argued that their approach was superior. Some of these researchers were 'purists' in the sense that they argued that the two approaches could not be used together because of differences in the worldviews or philosophies associated with the two approaches. The problem with this purist thesis is its failure to recognise that creative and thoughtful mixing of assumptions, ideas, and methods can be very helpful and offers a third paradigm based on pragmatism with the argument that both quantitative and qualitative research are very important and often should be thoughtfully mixed in single research studies. According to pragmatism, what is ultimately important is what works in practice and what promotes social justice.

This article focuses on qualitative research and its use in educational research. The paper starts by defining important concepts before giving an exposition and applicability of qualitative research design to educational research.

## 2. Definition of terms.

**Quantitative research:** Research based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity.

**Qualitative research:** According to Bolarinwa (2006) qualitative research verbally describes or tells what is done or what has been done. It is concerned with phenomena relating to or involving quality or kind.

## 3. Qualitative research.

Qualitative research is based on qualitative data and tends to follow the exploratory mode of the scientific method. Bolarinwa (2006) observes that qualitative research verbally describes or tells what is done or what has been done. It tells the story around events, occurrences and practices. In qualitative designs, theory arises from the investigation. Theory and conceptual insights derive from data collection rather than prior to it. Such approaches generate hypotheses, as opposed to testing them (McCandless, *et al*, 2007): Qualitative methods are more interpretative, historical, and ethnographic than are quantitative approaches.

There are many methods of qualitative research designs, some of which include participant-observation, ethnography, photography, ethnomethodology, dramaturgical, interviewing, sociometry, case study, grounded theory, content analysis, historiography, action research and secondary analysis of data. This paper looks at three specific types of qualitative research designs and their use in educational research: phenomenology, ethnography and case study.

### ***3.1 Phenomenology and its use in educational research***

Phenomenology literally means the study of phenomena (Musingafi and Hlatywayo, 2013). It is a way of describing something that exists as part of the world in which people live. Phenomena may be events, situations, experiences or concepts. As human beings, we are surrounded by many phenomena, which we are aware of but not fully understand. Our lack of understanding of these phenomena may exist because the phenomenon has not been overtly described and explained or our understanding of the impact it makes may be unclear. Phenomenological research begins with the acknowledgement that there is a gap in our understanding and that clarification or illumination will be of benefit. Phenomenological research will not necessarily provide definitive explanations but it does raise awareness and increases insight.

When conducting a phenomenological research study, a researcher attempts to understand how one or more individuals experience a phenomenon. For example, you might conduct a phenomenological study of elementary school students who have lost a parent to understand better how schoolchildren experience bereavement. The key element of a phenomenological research study is that the researcher attempts to understand how people experience a phenomenon from the person's own perspectives. Your goal is to enter the inner world of each participant to understand his or her perspectives and experiences. Phenomenological researchers have studied many phenomena, such as what it is like to participate in a religious group that handles serpents as part of the worship service (Musingafi and Hlatywayo, 2013).

In educational research phenomenological research can be used in studying family life styles of students of different abilities. What is it that makes them perform differently than others? One can also use it to explain why different schools perform differently. Why do other schools excel in art while others excel in scientific subjects? It is, however, important to note that simply studying the why and how of a phenomenon is not enough. Some factual information on quantities and ages affected may be required. How many students perform poorly as a result of their family background? This explains the need for mixed approaches in educational research.

### ***3.2 Ethnography and its use in educational research***

According to Musingafi and Hlatywayo (2013), ethnography has a background in anthropology. The word ethnography literally means writing about people. The term means portrait of a people and it is a methodology for descriptive studies of cultures and peoples. The cultural parameter is that the people under investigation have something in common. Examples of parameters as identified by Musingafi and Hlatywayo (2013) include:

- geographical - a particular region or country;
- religious;
- tribal; and
- shared experience.

When ethnographers conduct research, they are interested in describing the culture of a group of people and learning what it is like to be a member of the group from the perspective of the members of that group. That is, they are interested in documenting things like the shared attitudes, values, norms, practices, patterns of interaction, perspectives, and language of a group of people. They may also be interested in the material things that the group members produce or use, such as clothing styles, ethnic foods, and architectural styles. Ethnographers try to use holistic descriptions; that is, they try to describe how the members of a group interact and how they come together to make up the group as a whole. In other words, the group is more than just the sum of its parts.

Ethnographic studies entail extensive fieldwork by the researcher. Data collection techniques include both formal and informal interviewing, often interviewing individuals on several occasions, and participant observation. Because of this, ethnography is extremely time consuming as it involves the researcher spending long periods of time in the field (Hancock, 1998).

In educational research ethnographic research is most appropriate in studying gender, language, racial and other related issues. The focus here will be on different cultural backgrounds and lifestyles. A classic example is the much talked about Hoffstede studies on different nations. In a classroom situation one may study characteristics that make students from different tribal or language groupings behave the way they behave or even perform differently.

Ethnographic research can be problematic when researchers are not sufficiently familiar with the social mores of the people being studied or with their language. Interpretation from an outsider perspective may be a misinterpretation causing confusion (Hancock, 1998). Most importantly ethnographic studies are easily affected by what Cateora and Graham (1999) call self-referencing criterion (using one's own cultural background as standard measure of people's behaviour). Thus, there is high probability of subjectivity in ethnographic studies. Also as in phenomenological research above, on its own ethnographic research may not be enough. Some experiment and other forms of quantitative research may be required to test objectivity. In a classroom situation one may put pupils in the same background environment and then test their attitudes and behaviour at some later date. The findings are then compared with those that are not put in this background environment.

### **3.3 Case study and its use in educational research**

In case study research, the researcher provides a detailed account of one or more cases. Although case study research usually relies on qualitative data, multiple methods are also used. Case study research can be used to address exploratory, descriptive, and explanatory research questions (Stake, 1995; Yin, 1994). Case study research is more varied than phenomenology, which focuses on individuals' experience of some phenomenon; or ethnography, which focuses on some aspect of culture. What all pure case studies do have in common, however, is a focus on each case as a whole unit (i.e., case study research is holistic) as it exists in its real-life context.

Case study research ranges in complexity (Hancock, 1998). The most simple is an illustrative description of a single event or occurrence. More complex is the analysis of a social situation over a period of time. The most complex is the extended case study which traces events involving the same actors over a period of time enabling the analysis to reflect changes and adjustments.

As a research design, the case study claims to offer a richness and depth of information not usually offered by other methods. By attempting to capture as many variables as possible, case studies can identify how a complex set of circumstances come together to produce a particular manifestation. It is a highly versatile research method and employs any and all methods of data collection from testing to interviewing (Hancock, 1998).

One of the criticisms aimed at case study research is that the case under study is not necessarily representative of similar cases and therefore the results of the research are not generalisable. This is a misunderstanding of the purpose of case study research which is to describe that particular case in detail (Hancock, 1998). It is particularistic and contextual. For example, the usefulness of an outreach teenage health service would be determined by a number of local factors and an evaluation of the service would take those factors into account. If the service works well it does not automatically mean that the service would work equally well in another part of the country but the lack of generalisability does not lessen the value of the service in the area where it is based. Generalisability is not normally an issue for the researcher who is involved in studying a specific situation. It is an issue for the readers who want to know whether the findings can be applied elsewhere. It is the readers who must decide whether or not the case being described is sufficiently representative or similar to their own local situation (Hancock, 1998).

In educational research one may study one school or a cluster of schools as case study. As already shown above, case studies use a multiplicity of study methods from both qualitative and quantitative research designs.

## **4. Conclusion**

In conclusion therefore, qualitative research is of great use in social sciences and educational research although it needs to be complemented with some aspects of quantitative research. Qualitative research tends to use the exploratory scientific method to generate hypotheses and develop understandings about particular people, places, and groups. In most cases, qualitative researchers typically are not interested in making generalisations. Qualitative research is discovery oriented and is conducted in natural settings.

In this paper, we have defined qualitative research as research that describes or tells what is done or what has been done. It tells the story around events, occurrences and practices. In qualitative designs, theory arises from the investigation. Theory and conceptual insights derive from data collection rather than prior to it. Such approaches generate hypotheses, as opposed to testing them. Qualitative methods are more interpretative, historical, and ethnographic than are quantitative approaches.

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