Qualitative Inquiry in Practice: Introduction to Qualitative Research[1]

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Introduction

Etymologically, the word qualitative is derived from the Latin word *qualitas*, which refers to focusing on the qualities and features of entities (Hammersley, 2012). The entities could be an individual, a group/community, or an organization. In qualitative research, the researcher explores these entities in their natural setting to understand the meaning of the social processes, the people and their perspectives, and the context in which social action, reactions, and interactions occur (Saldaña & Omasta, 2016). Qualitative researchers use their knowledge and experiences to interpret social processes and make meaning of the things occurring in natural settings, which is why researchers are called "research instruments" in qualitative research. Historically, qualitative research developed as an effort to document different cultures while people voyaged to different locations for research and missionary work (Erickson, 2018). Qualitative tools, such as interviews, observations, success stories, and archival materials, were used to describe the cultural aspects and lifestyles in places unfamiliar to the researcher (Bhattacharya, 2017). Over the years, qualitative research has evolved as a systematic inquiry to understand cases, people, phenomena, and

different kinds of social situations; it has been widely used in fields such as anthropology, education, management, marketing, sociology, public health, and agriculture, among many others (Erickson, 2018; Esposito & Evans-Winters, 2021; Hogg & Maclaran, 2008; Morgan & Smircich,1980; Yilmaz, 2013). The evolution of qualitative research has not only been characterized by a transformation of its foci and contexts of inquiry but also of its methods and philosophical purposes. This publication provides a brief overview of qualitative research to a broader audience including Extension professionals, students, early-career researchers, educators, and many others. Details on the sampling process, research methods, and data analysis process in qualitative research will be explained in the upcoming Ask IFAS publications in the *Qualitative Inquiry in Practice* series.

Features of Qualitative Research

Qualitative research helps in exploring "why" and "how" questions, explaining how systems function and affect people's lives, and understanding various contexts and processes of individuals, groups, and organizations. This includes capturing stories, perspectives, and experiences

(Patton, 2015). Yin (2016) described that qualitative research possesses five distinguishing features: "(1) Studying the meaning of people's lives, in their real-world roles; (2) Representing the views and perspectives of the people in a study; (3) Explicitly attending to and accounting for real-world contextual conditions; (4) Contributing insights from existing or new concepts that may help to explain social behavior and thinking; and (5) Acknowledging the potential relevance of multiple sources of evidence rather than relying on a single source alone" (p. 9).

Yin's description emphasizes exploring the meaning of people's lives. However, qualitative research can also be used to understand the meaning of a group, a community, or an organization. Some forms of qualitative research explore historical documents, artifacts, and other available resources to make meaning of their explicit and implicit content. All types of qualitative research occur in real-world settings, also called natural settings, where interference by the researcher is minimum. During the research process, researchers should consider the personal, social, cultural, and institutional factors that shape the experiences of their participants (Yin, 2016). This provides an understanding of the views and perspectives of those who lived those experiences (Yin, 2016). Collecting data from multiple sources helps qualitative researchers gather rich information about the context and explain the complexity of real-world settings (Patton, 2015; Yin, 2016).

To better understand the nuances of qualitative research and its uses, let us consider an example. An Extension agent in Florida conducted training on Florida-Friendly Landscaping™ (FFL) and received positive feedback from the participants. Pre- and post-training surveys showed a significant increase in knowledge about the benefits of Florida-Friendly Landscaping™. However, in a subsequent training a few months later, the Extension agent found that most of the participants who attended the initial training and were knowledgeable of FFL were not adopting the FFL principles in their yards.

In this context where there is little or no explanation for why participating residents are not applying FFL in their yards, the Extension agent can use formal (e.g., case studies using structured interviews) or informal (e.g., spontaneous discussions) qualitative approaches to understand the reasons behind this phenomenon/process:

1. Formal: Collecting data using structured interviews with the participants to understand why they did not use FFL practices in their yards. The interview process continues until the researcher has fully captured the different perspectives (i.e., until data saturation).

2. Informal: Talking directly to the participants present in the subsequent training to understand their reasons for not adopting FFL principles.

Alternatively, the Extension agent can interview participants who have adopted FFL and those who did not to understand the difference between the two groups. This also provides information about factors influencing the decision to engage in FFL.

Attributes of a Qualitative Researcher

Qualitative research takes place in real-world settings, requiring researchers to interact with people in their everyday lives. Qualitative researchers need to have both technical and interpersonal skills to understand the various processes present in real-world settings. This requires capturing actions (i.e., the activities of individuals), reactions (i.e., responses to actions and circumstances), and interactions (i.e., the collective sequence of actions and reactions) (Saldaña & Omasta, 2016). Yin (2016) describes six general attributes of a qualitative researcher: good listening, the ability to ask good questions, knowledge about the topic of study, being careful with data, the ability to do parallel tasks, and persevering.

A qualitative researcher should be a good listener who is capable of absorbing large amounts of information from the participants of a study and their surrounding environment. This includes a visual component, such as observing the surroundings to notice actions, reactions, gestures, and body language (Yin, 2016) that provide nonverbal information. Additionally, asking good questions is a critical skill for a qualitative researcher, as there is always a possibility of missing some information or collecting extraneous data (Yin, 2016). While asking questions, researchers should be courteous to participants, avoid interrupting them while they speak, and refrain from steering their responses (Yin, 2016). Moreover, a qualitative researcher should be well-informed about past studies on the research topic to understand the field setting, participants, and research methods. This knowledge helps minimize the chance of misinterpreting data (Yin, 2016). They should also be able to perform parallel tasks: listening, being attentive to the conversation, thinking about follow-up questions, and taking notes simultaneously. Perseverance, or the ability to move forward with study despite dealing with uncertainties and challenges of the real world, is another crucial attribute

of a qualitative researcher (Yin, 2016). Additionally, researchers must be very careful to protect their data from loss or misuse.

Challenges of Qualitative Research

While qualitative research has its strengths and significance for exploring subjects of interest in great depth, it comes with limitations, such as intersubjective replicability, exactness of research process and results, and reliability of results over time, among others (Lüders, 2004). Below are some common limitations that are associated with qualitative studies.

1. Qualitative research is not feasible with large sample sizes because it requires more resources, particularly for data collection and analysis (Kapoulas & Mitic, 2012). Qualitative data collection is time-consuming and may involve extensive fieldwork and/or transcriptions.

2. Individual researchers' backgrounds (e.g., education, race, religion, values, culture, etc.) and perspectives could influence their interpretation of the findings (Miles & Huberman, 1994; Morgan & Smircich, 1980).

3. Vague guidelines exist for data analysis. Overinterpretation of the qualitative data may occur when researchers draw conclusions beyond the actual data (Hogg & Maclaran, 2008; Kapoulas & Mitic, 2012). To make qualitative studies more credible and trustworthy, researchers should employ strategies such as triangulation (Miles & Huberman, 1994).

4. Replication of qualitative research poses unique challenges because of context orientation and subjectivity, which compromises its generalizability (Lüders, 2004; Kapoulas & Mitic, 2012). To enhance the trustworthiness of the qualitative research and its findings, the study's credibility, transferability, dependability, and confirmability as described by Lincoln and Guba (1985) should be addressed.

Differences Between Qualitative and Quantitative Research

Qualitative and quantitative research and their differences can be broadly categorized into four major aspects of the research process, which include philosophical foundations and worldviews, theoretical perspectives, methodologies, and methods (Crotty, 1998; Yilmaz, 2013). Additionally, they differ in the purpose of the study design, the researcher's role in the study process, the research methods, the nature of data collected, sampling approaches, and data analysis. Quantitative research explains phenomena of interest using numerical data that are subjected to mathematical and/or statistical analysis (Yilmaz, 2013). It is also interpreted as a form of empirical study that involves testing a hypothesis to predict or explain cases, people, or social phenomena (Creswell & Creswell, 2017). In contrast, qualitative research is exploratory and aims to understand the process rather than testing a hypothesis quantitatively or using statistics (Strauss & Corbin, 1998). Furthermore, while generalizability is the aim of quantitative research (i.e., extrapolating the findings of a study to a larger population), qualitative research aims for transferability, which means that while the findings of the study are specific to its participants and context, they can still be applicable and relevant in other contexts (Saldaña & Omasta, 2022).

Philosophically, researchers should consider their views on ontology, or the nature of being, and epistemology, how people acquire knowledge, as well as their worldviews when designing studies (Merriam-Webster, n.d.-a; Merriam-Webster, n.d.-b). Traditionally, quantitative research embraces realism and objectivism, which are grounded in the idea that an objective reality exists independent of human interpretations. Alternatively, qualitative research often uses relativism as its ontology, which implies that multiple realities may coexist, and those realities are products of human experience. As epistemologies, qualitative research often embraces subjectivism or constructivism, which implies that understanding of a phenomenon is created by humans and can be influenced by individual and/or social factors (Saldaña & Omasta, 2022). Finally, quantitative researchers tend to view the world with a positivist or objective lens, seeing things as is, and searching for physical, concrete evidence (Denzin & Lincoln, 1996). Qualitative researchers, on the other hand, tend to approach the world with an interpretative or constructive view, seeing things through multiple interpretations, and viewing participants as constructing their knowledge.

Preferred methods of data collection also differ in quantitative and qualitative research. In quantitative research, data are quantifiable, and the variables of interest are assigned numerical values. In contrast, in qualitative research, data are collected through conversations with participants, observations, and/or artifact analysis (e.g., reviewing documents, digital materials, pictures, etc.). The sampling process for data collection is typically non-probabilistic (e.g., purposive, convenience, snowball, etc.) for qualitative research. In comparison, quantitative research normally uses probability (e.g., simple random sampling, systematic

sampling, stratified sampling, etc.) sampling approaches (Yilmaz, 2013). Despite their features and differences, quantitative and qualitative research should be viewed as complementary to each other rather than incompatible (Malterud, 2001).

Deciding Whether or Not Qualitative Research Is Right for You

Qualitative research can be used in various situations, and its application usually depends on the nature of research questions. Some situations where its application is suitable are (Creswell, 2013; Järvinen & Mik-Meyer, 2020; Yin, 2016):

- Areas that are evolving and dynamic. The flexibility of qualitative research approaches makes them suitable for understanding and exploring an evolving topic.
- Topics that are novel and have minimal existing literature. Qualitative research helps to obtain an in-depth understanding of a particular issue.
- Exploration of "why" and "how" questions. As described in our example above about FFL adoption, qualitative research helps to explore and capture reasons for why the practices were not adopted and how it can be improved.
- When the sample size is small. Since qualitative research focuses on the depth of the information rather than the number of informants, sample size is not a huge concern for qualitative research. Some forms of qualitative approach prefer smaller sample sizes to process rich information in detail.
- Analysis of texts or images.
- Efforts to understand the context in which a process is occurring.
- Efforts to understand the interactions and relationships between or among people.
- When researchers want to have individuals share their stories and present them in a literary format without the limitations of formal academic structure.
- Efforts to develop theories when existing theories do not adequately explain the complexity of the problem.

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