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International Digital Organization for Scientific Research
IDOSR JOURNAL OF COMPUTER AND APPLIED SCIENCES 8(1):20-35, 2023. ISSN: 2579-0803

Qualitative Research

Ugwu, Chinyere. N. and Eze Val, H. U.

Department of Publications and Extension Unit, Kampala International University Uganda.
Email: ugwun@kiu.ac.ug; chinyerenneomaugwu@gmail.com; udoka.eze@kiu.ac.ug

ABSTRACT

Qualitative research is concerned with feelings, ideas, or experiences. Finding insights that can result in testable hypotheses is the main goal of the data collection, which is frequently done in narrative form. During the exploratory phases of a study, educators use qualitative research to find patterns or fresh perspectives. A methodology called qualitative research is created to gather non-numerical data to produce insights. It is not statistical and is either semi-structured or unstructured. It is predicated on data gathered using a research methodology that provides an answer to the why. This article discussed the approaches to qualitative research, qualitative data collection methods, advantages and disadvantages of qualitative research and tools for analyzing qualitative data.
Keywords: Qualitative, research, data analysis

INTRODUCTION

Based on its definition, qualitative research is the study of the nature of phenomena, which includes their quality, different manifestations, the context in which they appear, or the perspectives from which they can be perceived, but excludes their range, frequency, and place in an objectively determined chain of cause and effect [1]. A more practical guideline can be added to this formal definition: qualitative research typically includes data in the form of words instead of numbers [2].

To better understand ideas, opinions, or experiences, qualitative research involves gathering and analyzing non-numerical data (such as text, video, or audio). It can be used to uncover intricate details about a situation or to spark fresh research concepts. Quantitative research, which involves gathering and analyzing numerical data for statistical analysis, is the opposite of qualitative research [3]. The humanities and social sciences frequently employ qualitative research in fields like anthropology, sociology, education, the health sciences, history, etc.

The aim of qualitative research is to gain a comprehensive understanding of social phenomena in their natural environments. It relies on the direct experiences of people as meaning-making agents in their daily lives and focuses on the why rather than what of social phenomena [4]. For the study of human phenomena, qualitative researchers employ a variety of systems of inquiry, such as biography, case study, historical analysis, discourse analysis, ethnography, grounded theory, and phenomenology, as opposed to logical and statistical methods.

Approaches to Qualitative Research

Qualitative research is used to comprehend how individuals perceive their surroundings. Although there are numerous approaches to qualitative research, they all share a tendency to be adaptable and a focus on preserving rich meaning when interpreting data. Grounded theory, ethnography, action research, phenomenological research, and narrative research are examples of common methodologies. Despite some similarities, they emphasize various goals and viewpoints [3].

Figure 1: qualitative research methods

1. Ethnography

In order to closely observe people's behavior and interactions, ethnography is a type of qualitative research that entails becoming fully immersed in a particular community or organization. The written report of the research that the ethnographer produces afterward is also referred to as ethnography [5].

It is possible to gain a comprehensive understanding of a group's shared culture, traditions, and social dynamics through the flexible research method of ethnography. But there are also some moral and practical difficulties with it.

Advantages of ethnography

- The main benefit of ethnography is that it allows the researcher to observe a group's customs and culture up close. It is a helpful strategy for learning first-hand about how people behave and interact in a specific context.
- By immersing yourself in a social setting, you may have access to more accurate information and acquaint yourself with dynamics that you could not have learned about by asking.
- Ethnography is a method that is also adaptable and open. It seeks to provide a rich narrative account of a particular culture, allowing you to explore a variety of aspects of the group and setting, rather than to verify a general theory or test a hypothesis.

Disadvantages of ethnography

- Ethnography is a labor-intensive technique. You should plan to spend at least a few weeks, but probably several months, immersing yourself in the environment and compiling enough observations to create a comprehensive picture. This prolonged immersion can be difficult and calls for careful planning.
- Observer bias is a possibility in ethnographic research. It can be challenging to maintain the necessary distance to analyze a group that you are embedded in when writing an ethnography because it involves subjective interpretation.
- Ethics are frequently another important factor to take into account, such as how you disclose your role to group members or how you observe and report sensitive information.

2. Grounded theory

A qualitative method known as grounded theory enables you to investigate a specific

phenomenon or process and develop new theories that are founded on the gathering and examination of empirical data. Grounded theory is an inductive approach to research where new theories are deduced from the data as opposed to conventional hypothesis-deductive approaches, where you formulate a hypothesis and then attempt to prove or refute it [6]. Iterative processes are used for data gathering, data analysis, and theory development. Data is collected and analyzed iteratively until theoretical saturation is reached, which is the point at which more data provide no new insight into your new theory [7].

Benefits of using grounded theory:

a. **Results are true to settings in the real world**: Since the theories you create using grounded theory are derived from actual real-world participants in actual real-world settings using techniques like in-depth interviews and observation, your results will more closely reflect the real world. In contrast, other research methods take place in settings that are less natural, like research labs or focus group tables.
b. **Results are closely related to the data**: The conclusions are closely related to the collected data because grounded theory primarily depends on it to determine the outcome. This contrasts with other research methodologies that depend more on theoretical or frameworks from outside the field of study that are farther removed from the data.
c. **Great for making new discoveries**: For inductive research to find new theories, grounded theory is a powerful tool. You enter the experiment with no preconceived notions about the results and are not focused on validation or description. Instead, you create theories and analyses based on the data you have collected, which leads to new discoveries.
d. **Provides analysis techniques**: The method of grounded theory outlines specific analytic techniques that can be very beneficial. Despite the fact that grounded theory is a very open-ended methodology, the analysis strategies give you the ability to maintain a structured and analytical approach to your research.
e. **Data gathering and analysis are simplified**: Data gathering and analysis are closely related processes. Data is gathered, analyzed, and then more data is collected as you gain knowledge from analysis. This makes it more likely that the data you gather will be adequate to support the conclusions drawn from your analysis.
f. **Provides protection from confirmation bias**: You are actually observing what is emerging from the data because data collection and analysis are closely entwined. This serves as a fantastic barrier against the confirmation of existing biases regarding your subject.

Limitations of grounded theory

a. **Recruiting challenges**: Grounded theory is based on an iterative recruitment procedure called theoretical sampling, in which you continuously seek out new participants and conduct interviews with them while you analyze data. Based on what you learn, the hiring criteria also develops and changes. It can be difficult to consistently find the right participants for your study because the recruiting is not predefined.
b. **Data collection takes a long time**: Because the amount of data you will need to gather cannot be predicted in advance, you must be adaptable with your schedule. Once you reach theoretical saturation, or the point at which new data no longer adds new insight to your developing theory, you can stop collecting and analyzing data in grounded theory. Because of this, it's likely that you'll need to gather a lot of data before your theory is fully developed.
c. **Difficulties with analysis:** Continuous comparisons between various data snippets are made during data analysis, which is a continuous process. Keeping track of your

comparisons and conclusions as you go can be difficult.

3. Action Research Studies

A type of qualitative research known as action research aims to improve practice while examining the effects of the action that was taken [8]. In a specific hospital or healthcare setting, solutions are sought for practice issues. As is the case with quantitative research studies, there is no attempt to generalize the study's findings. The application of solutions takes place as a real step in the research process in action research. The solutions are being implemented right away. In the 1940s, action research gained popularity. Action research was popularized by Kurt Lewin, who was born in 1946. He came with the intention of assisting social workers in doing their jobs better. Lewin's involvement in action research is less well known, despite the fact that many of you may be familiar with him and his contribution to change theory [9].

4. Phenomenological research

A qualitative research strategy called phenomenological research aims to comprehend and characterize a phenomenon's fundamental elements. The methodology examines human experience in daily life while putting aside the researchers' preconceived notions about the phenomenon. In other words, phenomenological research investigates actual experiences to learn more about how individuals perceive those experiences [10].

Researchers who employ phenomenological research design make the assumption that individuals use a common framework or essence to interpret their experiences. They analyze the participants' emotions, perceptions, and beliefs to determine the core of the phenomenon they are studying. The researcher must set aside any preconceived notions they may have regarding the experience or phenomenon when using a phenomenological research design [11].

In layman's terms, phenomenological research designs are used by academics to examine the perspectives of those who have encountered a phenomenon in order to better understand its universal nature. This method is widely employed to investigate lived experience, learn more about how people think, and increase a researcher's understanding of a phenomenon [12]. A researcher might, for instance, look into issues like workplace antisocial behavior, the effects of a specific disease on women, and many other things.

Characteristics of phenomenological research design.

- Descriptive research design is used in phenomenological research. An accurate description of a phenomenon's structure is what the researcher strives for.
- The purpose of qualitative phenomenological research design is to understand the significance of a particular experience for a group of people and how they felt about it.
- Researchers who use this method must put aside their preconceptions and presumptions in order to concentrate primarily on the present moment.
- It necessitates that the researcher first provide an unbiased account of the lived experiences before considering how well the account fits with the phenomenon's pre-existing theories.

5. Narrative research

One of the more recent qualitative methodologies that emphasizes life stories as the essence of people-oriented sciences is narrative research or inquiry [13]. Narrative approaches aim to pay attention to the ways a story is constructed, for whom, and why, as well as the cultural discourses it draws from, as a research inquiry [14]. The foundation of narrative research is the idea that people gain understanding of and meaning from their lives through the stories they tell [15]. People use narratives to organize and organize their life experiences in this way. People account for and give meaning or significance to their lives through the use of story forms [16]. Because of its special ability to represent social phenomena in all of their richness and complexity and

because it offers a particularly generative source of knowledge about the meaning people attribute to their everyday social contexts, narrative research is being used more and more in studies of health, education, and the social sciences [17].

Table 1: Qualitative research approaches in summary

Approach	What does it involve?
Grounded theory	Researchers gather extensive data on a chosen subject and then develop theories deductively.
Ethnography	To comprehend the cultures of groups or organizations, researchers immerse themselves in them.
Action research	To promote social change, researchers and participants work together to connect theory to practice.
Phenomenological research	In order to better understand a phenomenon or event, researchers describe and analyze participant experiences.
Narrative research	In order to better understand how participants interpret and make sense of their experiences, researchers look at how stories are told.

Qualitative Data Collection Methods

The primary goal of qualitative data collection techniques is to gather textual data for research and analysis, such as thematic analysis. Some of the most popular techniques for gathering qualitative data in Observations: writing down in-depth field notes what you have observed, heard, or come across.

- **Interviews:** one-on-one conversations in which questions are directly asked of participants.
- **Focus groups:** are a way to get a group of people talking and asking questions.
- **Surveys:** sending out questionnaires with open-ended questions.
- **Secondary research:** gathering already-existing data, such as texts, images, audio or video recordings, etc.

Figure 2: qualitative data collection methods

a. Observation

By keeping an eye on individuals, events, or taking note of physical traits as they occur in the wild, observation is a method of gathering data. Overt (subjects are aware that they are being watched) or covert observations are both possible (do not know they are being watched).

Participant Observation

- The researcher participates in the context or culture being studied.
- For a study to be successful, the researcher needs to be accepted as a member of the culture being studied.

Direct Observation

- In order to avoid influencing the observations, the researcher tries to be as unobtrusive as possible; they are more impartial.
- Technology is sometimes beneficial (i.e video, audio recording).

Indirect Observation

- The outcomes of a process, interaction, or action are seen (for example, measuring the amount of plate waste left by students in a school cafeteria to determine whether a new food is acceptable to them).

Three types of observational research

Three different methodologies are available for observational research: controlled observations, naturalistic observations, and participant observations.

a. Controlled observation

In a psychology lab, controlled observations are typically structured observations. Many of the variables, including participants, observation sites, study times, study-related circumstances, and more, are under the researcher's control and are related to a specific research question. In this kind of study, the researcher frequently develops codes to represent various behavioral types. Instead of writing a detailed report, they can categorize behavior in this way to make it easier to analyze the data.

The advantages of controlled observation include:

- You can create an observation schedule for your sampling and ask other market researchers to replicate the study using the same codes. This aids in testing for dependability.
- Analyzing and quantifying the coded data is simple.
- Controlled studies don't take as much time.

Limitations of a controlled observation include:

- If participants are aware that they are being observed, it may be difficult to assess the study's validity.

b. Naturalistic observation

Another type of observation research technique is naturalistic observation. When conducting this kind of observation, researchers look at participants' actions in their natural environment. Typically, there are no established behavioral codes. The researcher will instead take meticulous notes and code the information later.

Naturalistic observation has the following advantages:

- When participants are in their natural environment, the study ensures validity.
- This kind of study can also spark new concepts and questions for further investigation.
- It exposes researchers to ideas they may not have previously considered.
- By collecting real data, researchers can avoid any potential issues that could arise from using self-reported data.

Naturalistic observational limitations include the following:

- Because different variables are uncontrollable, it is challenging to repeat the study and assess its reliability.
- Carrying out this kind of study on a large scale might be difficult.
- You must employ qualified researchers in order to avoid the

chance of overlooking crucial behavioral data.
- There are no variables that you can change.

c. Participant observation

Participant observation is the final category of observation technique. Because participants will be observed in their natural environment, this is a type of naturalistic observation. The distinction is that researchers will ingratiate themselves with the surroundings.

Advantages of Participant observation include:

- By being a part of the natural environment, you can influence some of the variables.
- Even when participants are aware that you are a part of the study, you can still observe them in their natural environment.
- By using this technique of observation, you can also prevent inaccurate self-reported data.

Limitations of Participant observation include:

- Taking notes in public without exposing your researcher identity can be difficult.
- If you can't take notes out loud, you'll have to take notes from memory, and memory can be unreliable.
- A researcher may lose objectivity if they become overly involved in the research. This might compromise the study's reliability.

b. Interview methods

There are various approaches you can take to conduct successful research interviews, including interview methods. As part of their research process, many researchers interview their participants. You can learn more about people's behaviors, attitudes, and opinions by conducting interviews. Most often, qualitative research that is, research that places a greater emphasis on ideas and experiences than on numbers finds interviews to be most helpful. You can select from a variety of interview techniques if you want to include interviews in your research and want to use a strategy that is appropriate for your particular research.

Interview Methods in Research

a. Focus group

Focus group interviews, which involve a number of people being interviewed simultaneously, are a common technique for research interviews. Focus group moderators typically encourage participant interaction while watching the group to gain understanding of actual attitudes and viewpoints.

Focus group settings tend to feel more authentic than other interview settings, so participants often respond more at ease and naturally.

b. Structured interview

Another choice is structured interviews. Structured interviews frequently include closed-ended questions, to which respondents can only respond yes or no. The interviewer typically asks each interviewee the exact same questions in the same order. Because structured interviews adhere to a predetermined format, researchers can frequently finish them quickly.

c. Unstructured interview

The opposite of a structured interview is an unstructured interview, also known as an informal interview. The interviewer doesn't pose the same questions to every interviewee in an unstructured interview. Unstructured interviews, on the other hand, rely on open-ended questions, which are inquiries that invite a more in-depth response than a simple yes or no.

The interviewer has the option to ask follow-up questions and let interviewees elaborate on their responses in unstructured interviews. An unstructured interview therefore resembles a real conversation more.

d. Semi-structured interview

Another option is to conduct interviews using a semi-structured approach, which combines elements of both structured and unstructured interviews. Interviewers frequently have the flexibility to make changes, even though they might stick to a general plan and set of questions. Because of this, interviewers may be more creative in gathering the information they require for their studies.

e. Personal interview

A personal interview is a one-on-one conversation between the interviewer and the interviewee that takes place in person. Personal interviews are the best option if you want to talk to someone one-on-one and tailor your questions to them.

To learn more, you can also follow up with more inquiries. Personal interviews are the best if you need to collect a significant amount of accurate data because they typically have higher response rates than other interview options.

f. Phone interview

Interviews can also be conducted over the phone. The use of telephone interviews can make gathering data simple. This interview technique is also reasonably priced, making it the best choice if you want to gather data quickly without using a lot of resources.

g. Online interview

Another option for research interviews is online interviews. Online interviews may include surveys or programs for video chat. The interviewers and interviewees don't have to be present at the same time or place when using this method. You may be able to quickly gather information from a large number of subjects in this way.

c. Surveys

Surveys are a common way to collect data in a variety of fields. They are a wise choice if you want to learn more about a group of people's traits, preferences, viewpoints, or beliefs.

Common uses of survey research include:

- **Social research:** studying the traits and experiences of various social groups
- **Market research:** obtaining feedback from customers on products, services, and businesses
- **Health research:** data gathering about symptoms and treatments from patients
- **Politics:** evaluating the public's perception of parties and policies
- **Psychology:** study of behavioral patterns, preferences, and personality traits

d. Secondary Research

A research technique called secondary research, also known as desk research, uses data that has already been collected. To improve the overall effectiveness of research, existing data is compiled and summarized.

Research that has already been published in research reports and other similar documents is considered secondary research. These documents may be made available through online resources, public libraries, surveys that have already been completed, etc. Some governmental and non-governmental organizations also keep data that can be retrieved and used for research.

Secondary research is much more affordable than primary research because it uses data that is already available, as opposed to primary research, which collects data from organizations or businesses directly or through the use of a third party.

Secondary Research Methods

One factor that makes secondary research a preferred method for many businesses and organizations is its low cost. Not all businesses have the resources to spend a significant amount of money on research and data collection. Therefore, secondary research is also known as desk research since information can be obtained while seated at a desk.

Popularly used secondary research methods are:

A. **Data available on the internet**: Utilizing the internet is one of the most common methods for gathering secondary data. On the internet, data is easily accessible and can be downloaded with a single click. This information is essentially free, or one might need to pay a small fee to download data that is already available. Businesses and organizations can use websites' wealth of information to meet their research needs. Organizations must, however, only use reliable, authentic websites when gathering data.

B. **Government and nongovernment agencies**: Some government and

non-government organizations are another source of secondary research data. Businesses and organizations can use the useful and pertinent data provided by sources like the US Government Printing Office, the US Census Bureau, and Small Business Development Centers. To download or use the data offered by these agencies, there is a certain fee. These organizations provide accurate and reliable data.

C. **Public libraries**: Another excellent place to look for information for this research is public libraries. Copies of significant earlier research that was conducted are available in public libraries. They are a repository for crucial data and documents from which data can be gleaned. Each of these public libraries offers a different set of services. Libraries frequently have a sizable collection of government publications with market statistics, as well as sizable collections of business directories and newsletters.

D. **Educational Institutions**: Secondary research frequently overlooks the value of gathering data from educational institutions. Colleges and universities, however, are the places where research is done the most frequently in all of business. University researchers primarily use the data they collect for primary research. The request for data from educational institutions can, however, be made by businesses or other organizations.

E. **Commercial information sources**: Local radio, TV, newspapers, journals, and magazines are excellent places to find information for secondary research. These commercial information sources provide first-hand information on topics like demographic segmentation, market research, political agenda, and economic developments.

Table 2: Key Differences between Primary Research and Secondary Research

Primary Research	Secondary Research
To gather data, research is done on-site. The collected data belongs to the researcher.	Data gathered from prior studies is the basis for research.
On raw data, primary research is based.	Secondary research is built on well-proven, previously analyzed, and filtered data.
The collected information is tailored to the needs of the researcher. The absolute needs of organizations or businesses are taken into account when gathering data.	The data may or may not meet a researcher's requirements.
To gather data for primary research, researchers are heavily invested in their work.	Secondary research is quicker and simpler than primary research. It seeks to gain a deeper comprehension of the subject.
The process of conducting primary research is costly, and the data collection and analysis take a lot of time.	The availability of data makes secondary research a quick process. The best places to look for information should be known to researchers.

The steps involved in conducting secondary research:

1. **Identify the topic of research**: Decide what needs to be researched before you start your secondary research. List the characteristics of the research and its goal after that.

2. **Identify research sources**: Next, focus on the information sources that will offer the most pertinent information and data for your research.

3. **Collect existing data**: Once the sources for the data collection have been selected, look for any previously collected

information that is relevant to the subject. Numerous sources, including newspapers, public libraries, governmental and non-governmental organizations, etc., can be used to find research-related data.

4. **Combine and compare**: Once data has been gathered, combine it with other data to check for duplicates, then put it all together in a format that can be used. Make sure to only gather information from reliable sources. Research can be severely hampered by inaccurate data.

5. **Analyze data**: Analyze the information gathered to see if all the questions have been addressed. If not, repeat the procedure if you need to delve deeper into practical insights.

Advantages of Secondary Research

- The majority of the data used in this research is available. In contrast to primary research, where data must be gathered from scratch, there are numerous sources from which pertinent data can be gathered and used.
- Since the data needed is readily available and doesn't cost much if extracted from reliable sources, this process is less expensive and time-consuming. The cost of obtaining data starts at a minimum.
- Organizations or businesses can determine the effectiveness of primary research using the information gathered through secondary research. As a result, organizations or companies can formulate a hypothesis and assess the expense of carrying out primary research.
- Due to the availability of data, secondary research can be completed more quickly. Depending on the business's goals or the volume of data required, it may take a few weeks to complete.

Disadvantages of Secondary Research

- Even though data is easily accessible, credibility assessment must be done to determine the veracity of the information available.
- Not all secondary data sources provide the newest statistics and reports. Even when the information is correct, it might not have been updated frequently enough to take recent timelines into account.
- Secondary research draws its conclusions from the results of all primary research. The effectiveness of the research that has already been done through primary research will have a greater impact on the outcome of your study.

e. Focus group

Focus groups are a type of research technique where a small group of participants are gathered to respond to questions in a controlled environment. The group is chosen based on predetermined demographic characteristics, and the questions are created to shed light on an interesting subject. Qualitative research includes focus groups. Future research on consumer choices, goods and services, or divisive topics can be influenced by observations of the group dynamics, their responses to focus group questions, and even their body language.

Focus groups are frequently used in the user research, marketing, library science, and social science fields. Compared to individual interviews, they can offer more nuanced and organic feedback, and they are simpler to plan than experiments or extensive surveys.

Advantages of focus groups

- They are reasonably easy to organize, and the findings have good internal consistency.
- Even when participants are compensated, they are frequently affordable.
- Focus groups take much less time to conduct than surveys or experiments, and the results are available right away.
- Focus group findings are frequently easier to understand and apply than raw data.

Disadvantages of focus groups

- Putting together a truly representative sample can be challenging. Due to their small sample sizes, focus groups are

typically not regarded as having external validity.

- The respondents' anonymity cannot be guaranteed due to the small sample size, which may affect their willingness to speak candidly.
- The depth of the analysis can be problematic because it can be difficult to find sincere opinions on contentious issues.
- The data analysis has a lot of room for error, and there is a lot of potential for observer dependence when drawing conclusions. You must be careful not to cherry-pick answers to support a preconceived notion.

Qualitative Data Analysis

The analysis of qualitative data can be done in a variety of ways. Although these methods use similar processes, they focus on different ideas.

Table 3: Qualitative data analysis approaches

Approach	When to use	Example
Content analysis	To define and classify typical terms, expressions, and concepts in qualitative data.	To determine the language used in descriptions of therapeutic apps, a market researcher could conduct a content analysis.
Thematic analysis	To locate, recognize, and interpret themes and patterns in qualitative data.	To investigate how tourism affects self-identity, a psychologist may use thematic analysis of travel blogs.
Textual analysis	To analyze the composition, organization, and design of texts.	To comprehend how celebrity news coverage has changed over the past ten years, a media researcher could use textual analysis.
Discourse analysis	To research communication and how language functions in different contexts to produce different effects.	Discourse analysis could be used by a political scientist to investigate how candidates build support during campaigns.

Tools to Analyze Qualitative Data are:

a. MAXQDA

MAXQDA is a tool for analyzing data using mixed, qualitative, and quantitative methods. It allows you to enter information from many different sources, including surveys, interviews, and focus groups, to name a few. The data can then be tagged and categorized for analysis. MAXQDA was "created by researchers, for researchers" in the fields of commercial, nonprofit, and educational institutions. It is simple to use and has support for numerous languages. Additionally, it makes use of Artificial intelligence and machine learning to assist users with audio transcription [18,19,20]. Since this software was established in 1989, it has been around for a while, and you can rely on the dependability of its products.

b. Nvivo

Similar to MAXQDA, NVivo is a piece of software that enables users to prepare and store qualitative data for analysis. Word documents, PDFs, audio, visual files, and more can all be imported. Researchers or academics looking for software with autocoding should consider this program. Many users find the interface to be immediately intuitive and simple to use because it is similar to Microsoft and is easy to use. It offers automated transcription and autocoding and is much more powerful than some other options.

c. ATLAS.ti

Large-scale collections of textual, graphical, audio, and video data can be supported by ATLAS.ti, a potent qualitative data analysis software tool. The software has incorporated Artificial Intelligence (AI) technology as it has developed, unlike other programs in this category like Quirkos. Due to the additional AI features and the increased cost, this is best for research organizations, businesses, and academic institutions. Collaboration is simpler than in MAXQDA and has a cleaner, more elegant interface than Nvivo. Additionally, it is more potent because it incorporates sentiment analysis and autocoding.

Advantages and Disadvantages of Qualitative Research

Open-ended questions are the foundation of qualitative research. It gathers data in a unique way. In qualitative research, participants are free to be who they are throughout the research process as opposed to being asked questions with only predetermined answers, as in a poll. In exchange, researchers are better able to investigate methodologies [19,21,22,23]. To find fresh information, they can search through recordings.

The benefits and drawbacks of qualitative research are able to offer a special data relationship. To produce accurate results, it is necessary to combine the participant's perspective with the perspectives of those who collected the data.

Advantages of Qualitative Research

a. It becomes possible to understand attitudes: Qualitative research's methods offer a potential explanation for why a person's attitude might change. Qualitative research improves our collective understanding of attitudes.

b. It is a content generator: The qualitative research methodology enables the collection of real ideas from particular socioeconomic demographics. These concepts are then transformed into information that can be used to produce worthwhile content that reflects the offered brand messaging. Everyone wins when this process is carried out correctly because the value proposition is improved and advantageous.

c. It saves money: A smaller sample size is used in qualitative research than in other types of research. This is as a result of the fact that more data is gathered from each participant. Research costs are lower when sample sizes are smaller. This research methodology not only saves money, but it can also yield quicker results. This is among the best research options at hand right now if data is required quickly for a crucial decision.

d. It allows creativity to be a driving force:

Research frequently prefers facts to opinions. It prefers observations to originality. The methodology of qualitative research is distinct from that of conventional research. Due to respondents' attempts to answer questions in a way that pleases the researcher, this format eliminates the bias that frequently enters data collection. People are urged to be authentic in their responses. Their originality becomes a valuable resource. As a result, the information that can be gathered from the respondents usually has more accuracy.

e. It is a process that is always open-ended: Researchers can delve deeper into these behaviors to uncover the real data that a subject can offer by using the qualitative research process. It has access to the emotional information that influences how we make decisions. There is no right or wrong response because it is an open-ended process, which makes gathering data much simpler.

f. It incorporates the human experience: Facts are crucial. Statistics can reveal patterns. The human experience, however, cannot be disregarded. Two people will each perceive the same event differently as a result of their unique human experiences. The complexity of this kind of data can be incorporated into the conclusions drawn from the gathered research by using qualitative research. Every viewpoint becomes significant. The process ultimately benefits everyone because it produces conclusions that are more accurate.

g. It has flexibility: The process of conducting qualitative research is not rigidly structured. Instead, it looks for real

information and feelings. This flexibility allows for trained researchers to follow up on any response they choose, adding depth and complexity to the data being gathered. The qualitative research can go off on any tangent and gather data from the responses, unlike quantitative research formats that allow for zero deviation.

h. It can be based on available data, incoming data, or other data formats: There is no set pattern or format necessary for collecting data using the qualitative research method. Information reporting is determined by the type and volume of data gathered. Researchers can modify their procedures right away if they believe their efforts are not yielding useful results. Using this method offers more chances to collect fresh data.

i. It allows for detail-orientated data to be collected: The data-collection process in the majority of research methods includes a number of restrictions. By doing this, it is possible to produce measurable results quickly. Qualitative research emphasizes the nuance of data rather than a particular metric. Whether or not the information fits into a particular framework, it wants as many details as it can. True insights are frequently discovered within those specifics.

Disadvantages of Qualitative Research

a. It is not a statistically representative form of data collection: Statistics are not represented in qualitative research in any way. It will only offer research information based on viewpoints. Typically, this type of research cannot measure responses. Only comparisons are feasible, which over time tends to result in data duplication. Qualitative research is not the type of research that should be used if statistical data is needed.

b. It relies upon the experience of the researcher: The experience of the researchers involved in the process will determine the quality of the data gathered through qualitative research. A researcher who is knowledgeable about the industry must gather data that is specific to that industry. For the data to be accurate, researchers must also be skilled at conducting effective interviews, brave enough to follow up with participants, and able to establish rapport with them on a professional level.

c. It can lose data: For data to be collected in qualitative research, it must be understood by the researchers. This indicates that the data collection process involves a level of trust that is not necessary for other types of research. Researchers will lose important data if they are unable to recognize it when they are observing it, which reduces the accuracy of the findings from qualitative research efforts. That might even cause some research projects to draw incorrect conclusions.

d. It may require multiple sessions: Although the small sample size of the study can be problematic, the qualitative research may be successful in gathering real data. Multiple viewpoints are frequently needed to make a significant decision in order to prevent costly errors. To gather all the information required to make such a difficult decision, it might be necessary to conduct several research periods. If that's the case, a larger follow-up sample might result in more expenses rather than fewer if a fork in the road is reached.

e. It can be difficult to replicate results: Since each participant has a unique perspective, it is nearly impossible to reproduce the findings of qualitative research. It's possible that tomorrow, even the same person, will see things differently than they do today. Because of this, some people may question the conclusions that researchers draw from qualitative research because the data they gather may be challenging to verify.

f. It can create misleading conclusions: Although like-minded individuals frequently act, feel, and think similarly, this isn't always the case. In the United States, Donald Trump may have received the support of 80% of evangelical Caucasian Christians. 20% did not vote in the 2016 presidential election, however. A small qualitative research sample that only consists of participants in the 80% would totally disregard the perspectives of participants in the other 20%. It is impossible to know for sure whether

conclusions drawn from qualitative research can be applied to a whole demographic.

g. It can be influenced by researcher bias: In qualitative research, the researcher's bias, whether conscious or unconscious, may influence the results. This bias may even have an impact on the findings of the research. To avoid results being impacted by researcher bias, controls must be a part of the data collection process.

h. It may not be accepted: Qualitative research has an element of objectivity, despite having an element of authenticity. The collected data might not be accepted as a result of its nature. The data that was initially gathered may even be disregarded if subsequent qualitative research efforts cannot yield comparable results.

i. It creates data that is difficult to present: The responses to qualitative research findings can frequently fall into one of two categories because people have varying perspectives. People who agree with the findings will exist as well as those who disagree with them. Both groups will value the information being gathered, but their respective decisions about how to proceed will depend on how they see the situation. As a result, it is challenging to present the data to audiences with wide ranges of interests because it can lead to two very different outcomes.

j. It creates data with questionable value: Due to their diverse viewpoints, even researchers occasionally disagree on the importance of data that is being gathered. The researcher involved determines what is included in the qualitative research process and what is excluded. Because of this, the data collection process is extremely subjective. It is always possible to present detailed data, but only if the researcher can put aside their bias and viewpoint in order to present the data they have collected in their unprocessed state.

k. It can be time consuming: Data collection takes longer because researchers go off in many different directions. Additionally, sorting through all of that additional data takes time. The value of every data point is never certain because it is evaluated subjectively. In contrast to data gathered through qualitative research, data gathered through other research formats is subject to strict guidelines and expectations that enable it to be evaluated and applied more quickly [20,21,22,23].

l. It has no rigidity: The qualitative research approach is based on unique viewpoints. The information collected is only accurate at the time it is gathered because those perspectives are subject to change. Positive things are more likely to stick in the human memory. Bad memories are pushed to the back of our minds, while happy memories are kept close at hand. Finding the positive aspects of what has happened to each of us is a natural instinct. As a result of this characteristic, it may be challenging for researchers to infer conclusions from the data that hold true from a long-term standpoint.

CONCLUSION

Information that aims to describe a topic rather than measure it is collected using qualitative data. Instead of using precise numbers that would be displayed in a graph or chart, this type of research evaluates opinions, views, and characteristics. The majority of qualitative research techniques, like focus groups or interviews, involve direct observation. Market research is typically carried out in natural settings, which means that there aren't any experiments or control groups involved; instead, things are just observed as they are. To learn more about people's motivations, thinking, and attitudes, qualitative researchers aim to delve deeply into the subject at hand. While using a qualitative approach can help you better understand your research questions, it can also make it more difficult to interpret the findings.

REFERENCES

1. Philipsen, H. and Vernooij-Dassen, M. (2007). Qualitative research: useful, indispensable and challenging. In: Qualitative research: Practical methods for medical practice. In L. PLBJ & H. TCo (Eds.), 5–12.
2. Punch, K. F. (2013). Introduction to social research: Quantitative and qualitative approaches. London: Sage.
3. Bhandari, P. (2022). What Is Qualitative Research? | Methods & Examples. (Retrieved). Scribbr. https://www.scribbr.com/methodology/qualitative-research/
4. Fossey, E., Harvey, C., McDermott, F. and Davidson, L. (2002). Understanding and evaluating qualitative research. Australian and New Zealand Journal of Psychiatry, 36, 717–732.
5. Caulfield, J. (2022). What Is Ethnography? | Definition, Guide & Examples. Scribbr, Retrieved November 5, 2022. https://www.scribbr.com/methodology/ethnography/
6. Delve, H. and Limpaecher, A. (2021). The Practical Guide to Grounded Theory. Practical Guide to Grounded Theory Research. https://delvetool.com/groundedtheory
7. Charmaz, K. (2006). Constructing Grounded Theory: A practical guide through Qualitative Analysis. Thousand Oaks, California: Sage.
8. Streubert, H. J. and Carpenter, D. R. (2002). Qualitative research in nursing: Advancing the humanistic imperative. Philadelphia: Lippincott Williams & Wilkins., 3rd ed.
9. Lewin, K. (1946). Action research and minority problems. Journal of Social Issues, 2(4), 34–46.
10. Delve, H. and Limpaecher, A. (2022). What is Phenomenological Research Design? Essential Guide to Coding Qualitative Data. https://delvetool.com/blog/phenomenology
11. Groenewald, T. (2004). A phenomenological research design illustrated. International Journal of Qualitative Methods.
12. Bliss, L. (2016). Phenomenological Research: Inquiry to Understand the Meaning of People's Experiences. International Journal of Adult Vocational Education and Technology.
13. Trahar, S. (2009). Beyond the story itself: narrative inquiry and autoethnography in intercultural research in higher education. Forum Qual Soc Res.
14. Bochner, A. (2007). Notes toward an ethics of memory in autoethnographic inquiry. Ethical futures in qualitative research: decolonizing the politics of knowledge. 197–208.
15. Andrews, M., Squire, C. and Tamboukou, M. (2013). Doing narrative research. London: Sage.
16. Bleakley, A. (2000). Writing with invisible ink: narrative, confessionalism and reflective practice. Reflective Pract. 1(1), 11–24.
17. Clandinin, D. (2013). Engaging in narrative inqui. Walnut Creek: Left Coast Press.
18. Corti, L. (2006). End of award report to ESRC for qualitative data tools (SQUAD). Final report
19. Brandon, G. (2018). Advantages and Disadvantages of Qualitative Research to the ESRC on SQUAD.
20. RS Aruho, B Nuwatuhaire, M Manyange, A Bateyo (2022). Socio-demographic Distribution of Persons with Small and Medium Enterprises in Uganda: A Case Study of Kabale Municipality South, Western Uganda. *INOSR Arts And Management*,8(1): 1-7
21. CE Eze (2023). The Need for Inclusivity in Nigerian Higher Education System. I*AA Journal of Communication* 9 (1), 26-31
22. VB Gerthrude, kimwise Alone, TB Generous (2023).The Effect of E-resource Use by Staff and Students

for Teaching and Learning in Kampala International University, Western Campus. *IDOSR Journal of Applied Sciences* 8 (1), 64-71.

23. VB Gerthrude, K Alone, TB Generous (2023). Availability and Awareness of E-resources Utilization in Supporting Teaching and Learning in Kampala International University Western Campus. *IDOSR Journal of Applied Sciences* 8 (1), 72-83.