

Qualitative Research in Higher Education Main Features

*¹Dr. Chingozha Misheck P, ²Ruvengo Leonard, ³Mapindu Innocent and ⁴Dr. Shava George

^{*1,2}Lecturer, Department of Business Studies, SARPCCO Centre of Excellence: Associate College of the University of Zimbabwe, Zimbabwe.

³Lecturer, Department of Industrial and manufacturing Engineering, National University of Science and Technology, Zimbabwe.

⁴Lecturer, Department of Faculty of Science and Technology Education, National University of Science Education, Zimbabwe.

Abstract

The literature review in this paper reconnoitres the major features of qualitative research in higher education. The paper addresses various characteristics of qualitative which makes it important in achieving dependable and trustworthy research outcomes. Qualitative research has influenced the research landscape in the past few years such that it became a torch bearer in most social sciences research. It can be used in qualifying behaviour in relation to the problem understudy within a community or organisation. This paper seeks to guide, encourage, motivate, inspire and acquaint new researchers in qualitative research with the basics in qualitative research with the view to improve the quality of their research outcomes. The paper looks at the research philosophy, the research design, population, sampling, analysis of data in qualitative research.

Keywords: Qualitative research, features of qualitative research, importance of qualitative research

Introduction

The major aim of qualitative research in higher education is to enable the research to allow the research to get a better understanding of a phenomena under study in its natural setting. This enables the researcher to derive meaning from the participants, surroundings and first-hand experience. The paper wishes to demystify social sciences widespread debate in concerning the characteristics qualitative approaches to research. The paper scrutinises and reconnoitres the main features of qualitative research in higher education.

Defining Research

Research is a “buzz” word in the academic arena. It has its origin from the French word ‘recherchier’ which means to search and search again (Brinkmann, Jacobsen and Kristiansen, 2014) [2]. This solidifies that in research one has to repeatedly search for something and relate the finding to previous literature in order to be conclusive. The major aspect of research is to come up with new knowledge and findings that will improve lives.

Shava and David (2019) [17] defined qualitative research as the type of research that arrives at its findings not by means of manipulation of statistics or any other mathematical calculations. In qualitative research, the researcher seeks to understand a phenomena in its specific natural settings. Pierre (2012) [14] defined it as a scientific and systematic search for important and relevant information on a particular area understudy. Research searches for new facts in different fields. Thus, Tong., Flemming., Oliver and Craig (2012) [14] defined research as a structured, organised and schematised effort to gain new knowledge in an area understudy. It addresses the objectives understudy by answering some research questions which help to problems in the society by coming up with new knowledge by collecting raw data in its

natural settings, organise it, analyse it and reporting the outcome with the view to enhance decision making. Research can be undertaken in any field and this paper takes special interest in qualitative research in higher education.

Educational Research

Educational research is a prearranged, planned, focused process of undertaking a scientific method of study. Its main purpose is to provide solutions in the academic arena. Williams (2007) [26] notes that research in education is focused towards scientific investigation and seeks to add value in higher education by producing relevant information needed to enhance the planning, controlling, leading, directing, decision making of a teaching and learning processes (Silverman, 2010) [18].

Research in education assisted and enhanced development of responsive and progressive curriculum that caters for learners of diverse background and capabilities. It also immensely contributed to the availing of information about culture, norms and values dynamics the world-over. Researchers in higher education have contributed immensely to the generation of new knowledge, skills, and understanding of human as individuals, in a group, understanding leadership and administration, improvement of classroom management, motivation of learners in a classroom, development of self-concept and provision of solution to community problems (Wolcott, 2009) [27]. Tuffour (2017) [25] believe that research is of paramount importance as assist education achieve its aims, goals and objectives. It is also assist in acknowledging diversity in a college or university setup, help learners to appreciate self and the environment around them.

Benefits of Research in Education

Research is of paramount importance to the higher education

arena. It provides a moral or scientific compass to problem solving and help individuals to understand the subject understudy in a much better way. It provides the researchers with relevant theories in the subject area. In researcher, the researcher identifies a new way of doing things other than the traditional way. In an educational set up, a properly carried out research should assist in the identification of the different needs by the learners. This would assist the lecturer to come up with tailor made programs to suit both the slow learners and gifted learners. Choy (2014) ^[3] concurs that research is predominantly an important of any task or function, especially in higher educational institutions. Therefore, researchers in the education fraternity should always keep on learning, collecting data, analysing information, adjusting their conduct in accordance to the information received, with the view to improve and familiarize with the changing trends. How the researcher uses a particular research method depends with on the type of the research, what is required in that research and the researcher's knowledge on the particular method in relation to the area under study.

Types of Research Approaches

There are many types of research approaches that can be used in higher education. These are action research, quantitative research, qualitative research and applied research among others (Pieree, 2012) ^[14]. All research approaches are of paramount importance in the research world if used properly and appropriately. This paper seeks to dwell much of a qualitative research approach. A qualitative research approach is a type of research approach that does not use numerical data and is usually undertaken using interviews as data collection instrument. Qualitative research approach respects diversity in participant's opinion. This calls for the researcher to adhere to all the ethical principles in research such as taking all the precautions during data collection and reduce bias, sort the data carefully, analyse the data with precision in a manner that avoids misstatements, misinterpretations or fraudulent analysis. In qualitative research, it is the responsibility of the researcher to interpret the data and present evidence so that other users of the research findings can make a decision to what extent the interpretation is believable. Wolcott (2009) ^[27] observed that the quest for meaning in qualitative research is like a lamp, illuminating the passages and turning points as the researchers make their way through multifaceted and diverse settings, questions, methods and knowledge.

Key Features of Qualitative Research Methodology

Qualitative research provides an opportunity for the researcher to collect raw data from its natural settings. It respects values and norms of the study area and participants. It is humanistic in nature and it focuses on the personal, subjective and experiential basis of knowledge and practice (Williams, 2007) ^[26]. It addresses all the things in the research as it seeks to deduce meaning from the participants' response and behaviour. In qualitative research, the research gets a chance to deduce meaning from the participants cues and relate it to area under study. It gives the researcher a chance to probe further and make meaning of the participants' mannerisms and replies. Tuffour (2017) ^[25] agrees that qualitative researchers would always try to make sense of what they hear and see with special reference to the objectives of the research. To the qualitative researcher, any behaviour, words, cues has a meaning and if the researcher could not deduce the meaning he/she can probe further or undertake a

programed or guided observation. How the researcher extract information from the data in qualitative research depends on the researcher's theoretical suppositions, beliefs, deductions and background.

Qualitative researchers are particular about how they deduce meaning from the provided data. Creswell (2012) ^[5] noted that quantitative researchers usually take a deep and thoughtful position in relation to the available data in to their research. The past experience and culture of the researcher has an influence to the research process and research outcome. Saunders., *et al.*, (2007) ^[39] concur that participants in qualitative research are clear about how their personal history and biography influence the interview questions that are asked and the framing of the research and the presentation of data.

Qualitative research can be undertaken using different methodological approaches. These methods range from: open ended, in depth, unstructured interviews and naturalistic. In open ended and unstructured methods, the researcher asks some research questions which allow the researcher participants to answer using their different experiences in the particular phenomena. Open ended questions allow participants to add more information providing the researcher with more contextual feedback. That allows for the researcher to better understand the respondent's true feelings and attitudes about the area under study (Creswell, 2012) ^[5]. An unstructured interview assists the researcher to collect data orally from the participants on the area under study. It usually does not have a guided set of questions before hand in advance (Choy, 2014) ^[3]. Unstructured interviews are useful exploratory research tools which can be used to focus on personal experiences in humanities. In this way, the research participant is not guided what to say.

In-depth interviewing is most relevant when a research seeks to deepen and improve his/her understanding of the study issue at hand. In this methodology, the researcher gradually guides a conversational partner in an extended discussion thereby simultaneously leading the way with well-prepared, thought-through questions, and following the interviewee through active, reflective listening (Khan, 2014) ^[10]. In naturalistic research, the researcher studies behaviour and participants beliefs in their natural settings such as their homes, work places or any other area of study (Wolcott, 2009) ^[27]. Studying a particular phenomenon in its natural settings may use several ways to examine and explore the same question or area under study. Naturalistic research is most common in anthropology and sociology or covert observation. Using such different methods to improve the trustworthiness of the datasets in qualitative research is called triangulation. Triangulation can be done in: convergence, complementary and divergence/dissonance

Research Ethical Principles

Research is not done haphazardly. It is guided by some ethical principles which a researcher has to adhere to in order to address the research objectives on the issue under study. In qualitative research, there are a number of ethical principles that the researcher need to observe. The basic ethical research principle seeks to do good and no harm to the research participants. Therefore, the researcher is obliged to seek informed consent from the participants, strive to minimize any risk of harm to the research participants, protect the identity of the research participants, avoids misleading research participants at any level of the research process, analyse data objectively and report research findings as they

are. Arksey and Knight (1999) ^[30] suggest that a researcher is expected to analyze data in a manner that avoids misstatements, misinterpretations, or fraudulent analysis. This ethics guides the researcher to use data to fairly represent what he/she sees and hear during data collection. Furthermore, Dodd (2004) ^[32] maintains that a researcher is obliged to interpret the data responsibly and present evidence so that others can decide to what extent that interpretation is believable.

Research Instruments in Qualitative Research

In collecting data in research, the researcher may use the following research data collection instruments. In qualitative research, the data collection instruments may range from: focus groups, interviews, observation, and collection of documented material such as letters, diaries, photographs, collection of narrative and open ended questions in questionnaires.

Interview in Qualitative Research

An interview is a data collection instrument in which the researcher orally asks questions to the research participants in a face to face situation (Creswell, 2012) ^[5]. During the interview, the researcher has an opportunity to clarify some research interview questions, probe for more information from the research participants and deduce some meaning from the research participants' physical gestures such as cues and mannerisms. Interviews allow the researcher to seek opinions and perception of a wide sample. Qualitative research usually uses semi-structured interviews. This type of an interview technique most uses open ended questions.

In qualitative research, open ended questions provides an opportunity for the researcher get a detailed convergence and divergent ideas about an area under study. In an event that the research participant has a difficult in answering some interviews question, the researcher may complement it by observing the cues from the participant and probe further. Williams (2007) ^[26] concurred that in open ended and semi-structured interviews, the researcher can probe further by following up a line of inquiry introduced by the researcher. This allows the researcher to reframe or modify his/her interview question if the research participant seems failing to comprehend it. Sem-structured interviews provide an opportunity to clarify some research interview question that may appear unclear to the research participants and probe more for answers. Strauss (2012) ^[21] observed that during semi-structured interviews, the researcher has an opportunity to probe further and make some follow up on areas of interest with the view to get a better understanding of the research participants' opinions.

However, semi-structured interviews are not immune to challenges. If research precautions are not taken, semi-structured interviews may be a source of bias. For example, if a researcher is conducting research at an organisation, the organisation staff may lie on their answers with the view to improve or maintain their organisation image. The research participant may provide the answers which they assume that the researcher wants to hear. Furthermore, on probing the participants for answers, the researcher may run a risk of misinterpreting the participants' clues. Cues are sometimes subjective. They may mislead the researcher. Thus, Choy, 2014) ^[3] warned that the researcher should be on the lookout for all forms of bias throughout the research process and minimise or eliminate them where possible.

An interview process in qualitative research is not a walk in

the park. A lot of effort should be put in it from the planning, interview process, analysis of data and reporting the research outcome. During the interview, the researcher should be prepared to what they see and hear (Zohrabi, 2013) ^[29]. Not everything that the research participants say in response to the research semi-structured interview question are positive. The researcher should not react to the assumed negativity of the response, but rather he/she should probe further with the view to at least understand the participant even better. The researcher should be sensitive to the participants, any negative reaction by the researcher to the participants may injure the feelings of the participants thereby violent the basic ethical principle of "do no harm" (Creswell, 2011) ^[4]. Never the less, Tong., *et al.*, (2012) ^[24] warned that in as much as the researcher should protect the participants, he must guard against digression of the research process, which is prone in qualitative research due to non-standardisation of interviews in research.

With the view to overcome the weaknesses caused by non-standardisation of interviews in qualitative research, it is important for the researcher to prepare some semi-structured interviews beforehand. This is done by drawing up the themes of interest to the researcher. Tuffour (2017) ^[25] suggested that the researcher should draw up a topic guide with a list of topics which the interviewer wishes to discuss in the interview. The guide should not be a cast in stone. It should not be treated like a list of interview questions which can should be followed religiously. Rather, it should assist the researcher to focus on the research process sensitively. The guide should allow for flexibility in following up on areas of interest to the researcher or research participants. Furthermore, the researcher may start an interview with an interview prompts. The interview prompts assist that researcher to cover the interview preliminary ground such as switching on the voice recorder and getting the consent forms signed.

A good interviewer should be able to make interviewees relax, attentive and concentrate throughout the interview process, he/she should be a good listener who appreciates diversity. The interviewer should identify a comfortable place away from any distractions to conduct the interview. The interviewer should have a pleasant personality, approachable and trustworthy so that interviewees can open up on sensitive information that may be required in the interview. To ensure that the interview is captured as it is, the interviewer may use an audio recorder. This sustains that interview up to data analysis and the audios will be a referral point during data analysis. Zohrabi (2013) ^[29] agrees that digital voice recorders may enhance the dependability of the data in qualitative research.

Focus Group Discussion in Qualitative Research

One of the frequently used data collection approach in qualitative research is a focus group discussion. Its main purpose in qualitative research is to gain a better understanding of social issues in a community. Focus group discussion seeks to obtain data from a purposively selected sample (Saunders., *et al.*, 2007) ^[39]. It offers an opportunity for research participants with diverse opinions to provide their views during the discussion. Never the less, focus group discussions run a risk of participants influencing each other's expressed ideas. The convenor/moderator/researcher of a focus group discussion also uses the topic guides similar to those used in semi-structured interviews. The maximum number of participants for a focus group discussion should be

kept minimal. The number of participants should be between eight to ten participants (Cresswell, 2012) [5]. The number of participants should be kept minimal to enhance easy controllability of the participants, ensuring all participants are given equal opportunities to contribute to the discussion. The role of the researcher in focus group discussion is to prepare a non-interruptive venue with accessible ablution facilities, prepare for some refreshments if any, prepare the seating arrangement if necessary, introduce the discussion, moderate during the discussion and take notes (Gentles., *et al.*, 2015) [8]. Before conducting a focus group discussion, it is important to lay down some ground rules (Silverman, 2010) [18]. In laying out some ground rules, the convenor/moderator/researcher should involve the participants in setting up such rules. That way the research participants will respect the ground rules well knowing that they contributed to their proclamations. Thus participants will take ownership of the rules which they participate to make and strive to respect them.

During the focus group discussion one of the dilemmas which the researcher/facilitator faces is on how to confidentiality of the participants. This is so because, the focus group discussion involves more than one person. The more the number of participants the higher the risk of the discussion leaking to the unintended users before the official research reporting of the research. Therefore the convenor/moderator/researcher of the focus group discussion should put some precautionary measures to protect the confidentiality of the participants (Silverman, 2010) [18]. All participants should be encouraged indicate that the discussion should be only known by the participants and the facilitator only. This increases the confidence of the participants to speak openly knowing that their contributions will be treated confidentially. (Strauss and Corbin, 2016) [22].

During the focus group discussion, the facilitator/researcher must encourage all participants to make some contributions freely and openly. The facilitator/researcher should ensure that one person speaks uninterrupted all the time. This enables the facilitator/researcher to easily identify the speakers for the purposes of transcription and analysis (Creswell, 2011) [4]. During the focus group discussion, it is always to have a back in terms of data collection. For example, it is important for the researcher/facilitator to involve an observer or use of video recording. This assist to ensure that all the participants say is recorded or noted. To protect the anonymity of the research participants, the participants can be labelled with some numbers or letters (Gentles. *et al.*, 2015) [8]. The number or letter will depict the identity of the research participant.

Observation in Qualitative Research

Observation is a data collection instrument in which the researcher gathers data by watching behaviour, noting physical characteristics in their natural settings (Punch, 1994) [36]. Observations can be undertaken with the participants aware that there are being watched (overt observation) or with the participants not aware that there are being watched (covert observation). Usually there researcher has a dilemma on choosing which type of observation should he/she use between covert and overt observation. The advantage of using covert observation in qualitative research is that participants are likely to behave naturally if there are not aware that there are being watched (Creswell, 2012) [5]. If the researcher decides to use an overt observation, there is a risk for the research participants to adjust and modify their behaviour. Once the participants modify and adjust their behaviour, there

are likely to introduce bias to the research, which will badly affect the research outcome.

Silverman (2010) [18] noted that by using observation, the researcher is able to watch and monitor a process, situation or behaviour and would be able to deduce meaning from it as it occurs. It also assist the researcher to collect data in its natural setting. This gives the researcher a chance to relate the behaviour being produced by the participants to the environment in which the participants live, work or spend their time at. However, the weakness of using observation in qualitative research is that the researcher/observer can't certain variables such as attitudes, motivation, customers/consumers state of mind, their buying motives and their images (Saunders., *et al.*, 2007) [39]. Furthermore, it is time consuming as it requires the observer/researcher to wait for a particular action to take place. It also requires the presence of the observer/researcher when the action of interest takes place.

Collection of Narratives in Qualitative Research

Collection of narratives is a qualitative research method in which stories are used to collect raw data. For example, narratives are used in history to collect data on culture, historical experiences, identity and life style of the narrator (Wolcott, 2009) [27]. Collection of narrative can be done on individuals or small groups through interviews and observations. However, there is no universal in the analysis of narrative data as the data analysis process is guided by the purpose of the research and research questions (Punch, 2013) [15]. There are several benefits of using the narrative approach in qualitative studies. The major advantage of narratives is that human being can easily tell stories and it is easy to encourage them to tell a story about a particular phenomenon as it provides a chance to collect an in-depth meaning of the stories (Maxwell, 2013) [35]. However, the disadvantage of narratives is that it cannot be feasible for studies involving a large number of participants. Furthermore, critics argue that a single story may not capture diverse human experiences as there is a risk of misrepresentation fact during the translation of some speech which may which introduce some bias on the research.

Open Ended Questions in Qualitative Research

Open ended questions are used in qualitative research to solicit data from the respondents. It allows the respondents a chance to exhaust their experience in answering the research from their experience, knowledge, feelings and understanding (Berg, 2012) [1]. In this case the respondent is not guided or limited on how to answer the question posed to him/her. It provides the respondent with a variety of opinions in answering the research questions. The respondent to an open ended question actively answer the research questions with creativity. Open ended questions are most suitable in situations where the respondent is expected to describe something and seeks to justify his/her answer. It provides the researcher with an opportunity to understand the respondent better. However, Critics are of the view that open ended questions are subjective, time consuming to answer, difficult to analyse and provides an opportunity for the responded to provide unnecessary data which may be of no value to the research (Saunders. *et al.*, 2007) [39].

Sampling in Qualitative Research

Sampling in qualitative research is a continuous event. It starts before data collection, during data collection and at data

interpretation, data analysis and reporting on the data (Creswell, 2012) [5]. In qualitative research, the researcher makes a contribution on who should be in the sample unlike in quantitative research where the researcher is guided by the probability effect. Khan (2014) [10] suggested that probability sampling techniques such as random sampling was therefore argue that probability-based sampling such as random sampling is unsuitable for qualitative research. Continuous sampling process in qualitative research depends on the research approach being used in the research. The common theoretical sampling used in qualitative research is: purposive, convenience, critical case sampling, intensity sampling, typical case sampling and snowball (Creswell, 2012) [5].

Theoretical Sampling Techniques

Theoretical sampling is the process of data collection, coding and analysing in a simultaneous manner in order to generate a theory (Streubert and Carpenter, 2002) [23]. It is used to generate and develop theoretical data in qualitative research (Khan, 2014) [10]. The advantage of theoretical sampling is that provides the researcher with structure on data collection and analysis. However, there are no clear processes on the application of theoretical sampling in qualitative research and it is time consuming and expensive to undertake as compared to other sampling techniques.

Convenience Sampling Technique

Convenience sampling is a sampling technique in which the researcher collects data from the sample available. For example, in an event that a researcher visits a police station for data collection, the researcher collects the data from the police officers he/she finds available at the police station on his/her visit at the police station. This type of sampling technique is most feasible when data is needed immediately, when the required data is general, when there is no need for additional input and when the researcher has a limited budget for the research (Strauss, 2012) [21]. In convenience sampling, the researcher chooses the sample based on his/her proximity to the person. The closer the person is to the researcher the higher the chance of being sampled for the research. In this type of sampling technique, the researcher is not worried about how the sample represent the population in terms of age, gender and colour. There is little diversity in convenience sampling as the sample is determined by the availability of the person when the researcher visits.

the advantages of using convenience sampling is that it is that it does not require much time to collect data as the researcher collects data from the available sample (Berg, 2012) [1]. It is a simple sampling technique that does not require a lot of formalities (Creswell, 2012) [5]. It allows the researcher to attend to a larger sample as he/she will have access to all the available people. However, Drobot, (2012) [7] warned that convenience sampling may not be feasible to use on complex researches which requires generalisation of the results to the population. The sampling technique lacks diversity and has high probability of introducing bias to the research since the sample will be guided by immediate availability, accessibility and proximity.

To improve the use of convenience sampling and enhance its effectiveness, the research may use it in conjunction with other sampling techniques. The researcher may blend it with a probability sampling technique (Khan, 2014) [10]. By fusing it with a probability sampling technique, the researcher would be able to reduce convenience sampling technique related bias.

Typical Case Sampling Technique

Typical case sampling is a sampling technique that is used when a researcher is interested in the normality (Yeh and Inman, 2007) [28]. A typical-case sample is made by identifying and including people whom the researcher regard as knowledgeable about a phenomena under study (Zohrabi, 2013) [29]. This is done to improve the credibility, dependability, conformability and transferability of the research outcome. It improves quality on research outcomes.

Critical Case Sampling Technique

Critical case sampling is a sampling technique in which a researcher purposively select participants that have higher chances of bringing to the fore the phenomenon of interest under study (Wolcott, 2009) [27]. For example, in critical case, a researcher prioritises to study a case that he/she believes has some paramount importance in the operation of the organisation and explore it.

Maximum Variation Sampling Technique

Maximum variation sampling is a sampling technique in which the researcher collects data from a wide range of sources on a particular area under study (Punch, 2013) [15]. This brings diversity in understanding the area under study as the sample would be from different background in terms of age, sex, region among other things (Maxwell, 2013) [35]. For example a fertiliser researcher may experiment with a new type of a fertiliser on a particular crop in different regions with the view to understand the effectiveness of the fertiliser in terms of regions, different patterns of rainfall and climatic conditions. This enhances the researcher to understand communalities in the particular type of fertiliser and the difference of the particular fertiliser in different regions, under different climatic conditions and rainfall patterns.

Intensity Sampling Technique

Intensity sampling is a sampling technique in which the researcher samples the sample subjects, characteristics repeatedly to get a deeper understanding of the subjects in terms of the phenomena under study (Gentles, *et al.*, 2015) [8]. In this type of sampling technique, the researcher the sample that strongly experiences the same phenomena. It is commonly used in interpretive phenomenological analysis (Khan, 2012) [33].

Snowball Sampling Technique

Snowball sampling is a sampling method whereby the researcher identifies one sample of interest and use the identified sample to reach to the other participants through referrals and recommendations. The referrals will be based on the particular traits and characteristics of interest to the researcher. It is more of a network sampling whereby the first identified participant assist the researcher to recruit more participants for the researcher. In snowball sampling, the existing subjects in the study recruit future research participants from their acquaintances who exhibit the traits of interest for the study (Williams, 2007) [26].

The advantage of snowball sampling is that enables the researcher to get research participants in challenging complex sensitive studies such as sex workers (Maxwell, 2013) [35]. Use of snowball sampling in research saves money and time since the researcher will be directed by other subjects where to get other participants. Less time is spend on planning and sampling since the sample will be by referral (Punch, 2013) [15].

There are high chances for the existing subjects to refer the researcher to participants who are less experienced in the area under study thereby introducing bias to the study. Participants who are approachable have higher chances of being recruited than introverts (Shava and Nkangbeza, 2019) ^[17]. Since the sampling is by referral, the researcher has little control over the sample and there are high chances that the sample would not be the representative of the sample (Punch, 2013) ^[15].

Collection of Narratives

Collection of narratives is a qualitative research method in which stories are used to collect raw data. For example, narratives are used in history to collect data on culture, historical experiences, identity and life style of the narrator (Khan, 2014) ^[10]. Collection of narrative can be done on individuals or small groups through interviews and observations. However, there is no universal in the analysis of narrative data as the data analysis process is guided by the purpose of the research and research questions (Strauss, 2012) ^[21]. There are several benefits of using the narrative approach in qualitative studies. The major advantage of narratives is that human being can easily tell stories and it is easy to encourage them to tell a story about a particular phenomenon as it provides a chance to collect an in-depth meaning of the stories (Williams, 2007) ^[26]. However, the disadvantage of narratives is that it can not be feasible for studies involving a large number of participants. Furthermore, critics argue that a single story may not capture diverse human experiences as there is a risk of misrepresentation fact during the translation of some speech which may which introduce some bias on the research (Wolcott, 2009) ^[27].

Determinant of Sampling Strategy

Sampling strategy is determined early in the research by coming up with a sampling frame that has to be used (Silverman, 2010) ^[18]. The sampling include among other things: age, level of education and the type of research participants that the researcher is interested in.

Gradual Definition of Sample Structure

Sample structure is of paramount importance in any type of research. Sample structure is defined gradually as the researcher decides on the sampling technique he/she needs. This is determined by the easy accessibility of the research participants, cost attached to sampling, time frame for the research. However, the researcher should strive as much as possible to gradually define a sampling structure that reduces bias to the as much as possible (Maxwell, 2013) ^[35].

Adequacy of Sample Size in Qualitative Research

In terms of qualitative research, one aspect in which the researcher may know that he/she has adequate sample is when the researcher has reached a theoretical saturation (Drobot, 2012) ^[7]. That means, in such a situation, any new data from new cases does not contribute any new idea to the research outcome.

Data Analysis in Qualitative Research

In qualitative, data analysis is a process of gathering, structuring and interpreting qualitative data to understand what it represents Grbich, (2007) ^[7]. Various data analysis techniques can be used based on the research objectives and the type of data gathered. Some of the data analysis approaches that can be used in qualitative research are:

discourse analysis, conversation analysis, qualitative content analysis, narrative analysis and using qualitative software.

Discourse Analysis

Discourse analysis is a data analysis approach used in qualitative research to analyse language in social contexts (Williams, 2007) ^[26]. It is used by researcher to understand the meaning of the words the researcher said in response to some research questions, interviews and focus group discussions. The advantage of discourse analysis is that it can be used to understand language semantics and contribute positively to the study (Strauss, 2012) ^[12]. However, discourse analysis requires a lot of time and it may not be feasible to answer questions on scientific research (Maxwell, 2013) ^[35].

Conversation Analysis

Conversation analysis is an approach commonly used in the study of social discussions and social dialogue (Grbich, 2007) ^[9]. Its advantage in qualitative research is that it pays attention to detail. However, it may not be used for other types of data except recorded videos and audios data.

Qualitative Content Analysis

This is a popular approach to qualitative data analysis. Other analysis techniques may fit within the broad scope of content analysis. Thematic analysis is a part of the content analysis. Content analysis is qualitative data analysis that identifies the patterns that come out of the text (Creswell, 2014) ^[6]. This is done by putting together content into words, concepts and themes (Drobot, 2012) ^[7]. The most common types of content analysis used in qualitative research are: conceptual analysis and relational analysis. The advantage of content analysis is that it provides closeness of data and the disadvantage of content analysis is that it is time consuming (Williams, 2007) ^[26].

Narrative Analysis

Narrative analysis pays attention to the stories the research participant as well as the language in the view to make sense out of it. It provide a chance for the research participant to express his/her experience. The advantage of narratives is that, it allows the researcher to identify and acknowledge transitional stages leading to a given situation (Drobot, 2012) ^[7]. However, it is prone to bias as information may be subjectively distorted.

Using Qualitative Software

Use of software in qualitative research assist in the easy of interpretation and analysis of data. This saves time for the researcher as he/she does not have to labour much with manual and clerical work traditionally common with research (Zohrabi, 2013) ^[29]. It assists the researcher to interpret a large amount of data with easy and flexibility. It reduces bias to the research at analysis stage. However, critics argue that use of software in analysis of data is rigid and it does not take into account depth of meaning of the data. Software such AS n6, Nvivo or Ethnograph can be used to store, organise and analyse data in qualitative research (Shava and Nkangbeza, 2019) ^[17].

Challenges in Qualitative Research

Sampling-Related Problems

1. Limited Sample Size

In contrast to quantitative data, where there is typically a

large quantity of data accessible, one of the issues with qualitative data is sample size.

If you search the internet, you will discover that there is no broad consensus on the optimal sample size for qualitative research. Extensive qualitative study with hundreds of individuals is quite expensive (Zohrabi, 2013) [29]. Is it really necessary to question so many individuals in order to gain significant insights?

2. Sampling Bias

Sampling bias is a statistical bias that occurs when a sample is obtained in such a way that some members of the target population are less likely to be included than others.

In other words, your qualitative sample will never comprise a representative sample of everyone who is affected by the area of research you are conducting. It's critical to remember this while evaluating test findings (Drobot, 2012) [7].

3. Self-Selection Bias

Not everyone enjoys filling out surveys. It is entirely up to you whether or not to engage in a research project. On the other hand, quantitative data is collected from the majority of individuals whether they like it or not. The biases associated with sampling and self-selection restrict the use of qualitative data (Maxwell, 2013) [35].

Observation Biases

1. Hawthorne Effect

The Hawthorne Effect is when participants in behavioural experiments alter their behaviour or performance in reaction to being watched. For example one's view of a certain website may alter when you are aware that you are being watched vs when you are unaware that you are being watched (Marshall and Rossman 2011) [34].

2. Observer-Expectancy Effect

Assuming one is conducting a survey and acting as an observer in the research room, strolling around observing the participants, they most likely have an influence over the outcome of the observation (Maxwell, 2013) [35]. It is well established that a researcher's opinions or expectations cause him or her to unconsciously influence experiment participants. This is referred to as the observer-expectancy effect (Creswell, 2013) [31].

3. Artificial Scenarios

Most experiments have pre-determined aims in a certain context. You can't obtain feedback on something you don't ask for. For instance, suppose you run an experiment for an ecommerce website. Your purpose is to determine whether the form (where individuals enter their personal information) works well and whether anything needs to be improved (Maxwell, 2013) [35]. In this scenario, the purpose is so narrow that you won't learn anything else useful from this research. The participant may have a lot more to say, but you won't know unless you ask them (Marshall and Rossman 2011) [34].

Apart from these Challenges, there are other Additional Challenges that Include

- Inconsistency between research topic and technique, a lack of methodological understanding, and a disregard for the philosophical underpinnings of qualitative methodology
- The researcher and participants take for granted some of the common social activities researched on. The

fundamental issue with qualitative data analysis is that, in the study of social life, the data is frequently involved with "daily activities." Reading through the transcripts might frequently elicit the responses of indifference.

- During qualitative data analysis sometimes, researchers face a problem of not been able to influence the quality of the data (production).

Quality in Qualitative Research

Due to the challenges aforementioned, the issues of quality is of paramount importance in qualitative research. The researcher should strive to increase the credibility, dependability, conformability and reflexivity (Creswell, 2013) [31].

In terms of credibility, the researcher should ensure that he/he present the findings of the research outcome drawn from the participants' actual data (Marshall and Rossman 2011) [34]. The findings should reflect the participants' original views. Richardson (2008) [38] equated credibility in qualitative research to internal validity in quantitative research. This is so because credibility concerns itself with the truth-value (Streubert and Carpenter, 2002) [23]. To improve credibility in qualitative research, the researcher can embark on a prolonged engagement, persistent observation, triangulation and member check.

The researcher should provide a detailed description of the research process and participants. This provides an opportunity to other users of the research to establish if the research findings are transferable to their own settings (Richardson 2008) [38]. In terms of transferability, the reader of the research findings is the one making the determination of the transferability of the research findings.

The research analysis should be consistent for it to be dependable. It must meet the accepted standards for the particular design (Creswell, 2013) [31]. To increase the dependability of the research, the interpretation of the research should be grounded in the data (Marshall and Rossman 2011) [34]. To improve dependability and conformability in qualitative research, the researcher needs to have an audit trail. Depending on the research, the audit trail include among other things: permission to carry out the research from the responsible authorities (where necessary), notes or audios taken during data collection, research team meetings (for example focus groups), data presentation and analysis tools.

Conclusion

Qualitative research enables researchers to have a better understanding and deriving meaning from a natural setting. Research has great importance especially in higher education. It provides an understanding on a subject that is broad supported by theories formulated. Qualitative research helps in the collection of data based on personal, subjective and experiential knowledge and practice. There are ethical principles that seek to protect the participants of the research such as protecting the identity of the participants as well as recording, reporting and analysing the collected data at it is. Some of the research instruments used in qualitative data include focus groups, interviews, observation, and collection of documented material such as letters, diaries, photographs, collection of narrative and open ended questions in questionnaires. However just like in any other research methods, there are always challenges associated with it which includes sampling-related problems and observation biases. In order to curb these potential problems, the researcher must

ensure the quality of the research is maintained by striving to increase the credibility, dependability, conformability and reflexivity.

References

- Berg BL. *Qualitative Research Methods for the Social Science* (8th Ed.). Long Beach: Allyn and Bacon, 2012.
- Brinkmann S, Jacobsen MH, Kristiansen S. Historical Overview of Qualitative Research in the Social Sciences. Patricia Leavy (Ed.). *The Oxford Handbook of Qualitative Research*. Chapter 2, Oxford: Oxford University Press, 2014, 17-42.
- Choy LT. The Strengths and Weaknesses of Research Methodology: Comparison and Complimentary between Qualitative and Quantitative Approaches, *IOSR Journal of Humanities and Social Science*, 2014; 19(4):99-104.
- Creswell JW. *Research Design: Qualitative, Quantitative and Mixed Method Approaches*, 2nd edition. Thousand Oakes, CA: Sage Publications, 2011.
- Creswell JW. *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Thousand Oakes, CA. Sage Publications, 2012.
- Creswell JW. *Qualitative Inquiry & Research Design: Choosing among Five Approaches* (4th Ed.). Thousand Oaks, CA: SAGE, 2014.
- Drobot L. Qualitative Research in Social Sciences and Education-Basic Paradigms and Research Methods. *Research in Pedagogy*. 2012; 2(2):11-20.
- Gentles SJ, Charles C, Ploeg J, McKibbin K. Sampling in Qualitative Research: Insights from an Overview of the Methods Literature. *The Qualitative Report*, 2015, 20(11).
- Grbich C. *Qualitative Data Analysis: An Introduction*. London: SAGE Publications, 2007.
- Khan SN. Qualitative Research Method: Grounded Theory. *International Journal of Business and Management*. 2014; 9(11):224-233.
- Leedy P, Ormrod J. *Practical Research: Planning and Design* (7th Ed.). Upper Saddle River, NJ: Merrill Prentice Hall. Thousand Oaks: SAGE Publications, 2001.
- Maxwell JA. *Qualitative Research Design: An Interactive Approach*. Thousand Oakes, CA. Sage Publications, 2001.
- Ospina S. Qualitative Research. In G. Goethals, G. Sorenson, & J MacGregor (Eds.). *Encyclopedia of Leadership*, London: SAGE, 2004; 1279-1284.
- Pierre EAS. A Brief and Personal History of Qualitative Research. *Journal of Curriculum Theorizing*. 2012; 30(2):1-19.
- Punch KF. *Introduction to Social Research: Quantitative and Qualitative Approaches*. SAGE Publications, 2013.
- Reeves S, Peller J, Goldman J, Kitto S. Ethnography in Qualitative Educational Research: AMEE Guide No. 80, *Medical Teacher*. 2013; 35(8):e1365-e1379.
- Shava GN, Nkangbeza D. Qualitative research paradigm, a design for distance education researchers. *The Namibia CPD Journal for Educators*. 2019; 5:237-258.
- Silverman D. *Qualitative Research*. London: SAGE. 2010.
- Spencer L, Ritchie J, Lewis J, Dillon L. *Quality in Qualitative Evaluation: A Framework for Assessing Research Evidence*. A Quality Framework. National Centre for Social Research, Cabinet Office, London. 2003.
- Starman AB. The Case Study as a Type of Qualitative Research. *Journal of Contemporary Educational Studies*, 2013; 1:28-43.
- Strauss A. *Qualitative Research for Social Scientists*. Cambridge: Cambridge University Press, 2012.
- Strauss A, Corbin J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (3rd Ed.). Thousand Oaks, London, New Delhi: SAGE Publications, 2016.
- Streubert HJ, Carpenter DR. *Qualitative Research in Nursing: Advancing the Humanistic Imperative* (3rd Ed.). Philadelphia: Lippincott Williams & Wilkins, 2002.
- Tong A, Flemming K, McInnes Oliver ES, Craig J. Enhancing Transparency in Reporting the Synthesis of Qualitative Research: ENTREQ. *BMC Medical Research Methodology*. 2012; 12:181.
- Tuffour I. A Critical Overview of Interpretative Phenomenological Analysis: A Contemporary Qualitative Research Approach. 2017; 2(4):52(1)-52(5).
- Williams C. Research Methods. *Journal of Business & Economic Research*. 2007; 5(3):65-71.
- Wolcott H. *Writing up Qualitative Research* (3rd Ed.). Thousand Oaks, CA: SAGE, 2009.
- Yeh JC, Inman A.G. Qualitative Data Analysis and Interpretation in Counseling Psychology: Strategies for Best Practices. *The Counseling Psychologist*. 2007; 35(3):369-403.
- Zohrabi M. Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*. 2013; 3(2):254-262.
- Arksey H, Knight P. *Interviewing for Social Scientists*. Sage, London, 1999.
- Creswell JW. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 4th Edition, SAGE Publications, Inc., London, 2013.
- Dodd. *Qualitative methods in social research*. Boston: McGraw-Hill, 2004.
- Khan SN. Qualitative Research Method-Phenomenology. *Asian Social Science*. 2012; 10:298-310.
- Marshall C, Rossman GB. *Designing Qualitative Research* (5th ed.). Thousand Oaks, CA: Sage Publications, 2011.
- Maxwell JA. *Qualitative research design: An interactive approach* (2nd ed.). Thousand Oaks, CA: Sage, 2013.
- Punch M. Politics and ethics in qualitative research. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research*. Newbery Park, CA: Sage, 1994.
- Khujan Singh, Komal Verma and Chand Kiran. Determinants Regarding Corporate Social Responsibility (CSR): A Review. *Int. J. Res. Acad. World*. 2022; 1(10):31-37.
- Richardson MJ. Dynamics of Interpersonal Coordination. In A. Fuchs, & V. K. Jirsa (Eds.), *Coordination: Neural, Behavioral and Social Dynamics* (pp. 281-308). Berlin: Springer, 2008.
- Saunders M, Lewis P, Thornhill A. *Research Methods for Business Students*. 4th Edition, Financial Times Prentice Hall, Edinburgh Gate, Harlow, 2007.