

BACK TO BASICS: QUALITATIVE RESEARCH METHODOLOGY FOR BEGINNERS

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Abstract

This paper is devoted to a detailed discussion of the qualitative research methodology. The sections which follow cover the research design, the target population, sampling techniques, the research instruments and some of the procedures which are to be taken into consideration when collecting and analysing the qualitative data. Some of the methods used to store the data are described and the ethical standards, which apply to all professional research in the social sciences, are enumerated and explained in this paper. Researchers are required to be acutely aware of the ethical implications of their studies and to safeguard the rights of those who agree to participate in them at all times, even after their studies have been concluded. In the final section of the paper, some of the procedures by means of which the data can be verified are described.

Key words Research Ethics. Research Method. Sample. Research Instrument. Target Population Data Analysis

1.1 Introduction

Research is both a systematic and creative process of gathering information and a means of answering questions or creating knowledge, in order to advance and increase existing bodies of knowledge (Inglesi-Lotz, 2017). From a similar standpoint, Masukume et al (2018) view research as the original contribution which follows the pursuit of truth, through observation, experiments and studying. Research refers to a critical investigation or a scientific study of a subject which can result in reaching new conclusions, the discovery of new knowledge, or a new collation of old facts (Creswell, 2009). From the definitions which have been provided, it can be concluded that research entails a process of discovery which allows the unknown to become known, through a systematic method which consists of articulating a research problem, formulating a hypothesis, collecting the relevant facts, analysing them, and arriving at conclusions in the form of a way forward to the research problem (Strydom, 2014). It needs to be emphasised that the value of a research study is entirely dependent upon how it has been designed. Consequently, the formulation of an appropriate research design represents a crucial factor for conducting meaningful research (Chivanga, 2018).

A research design is a procedure for collecting and analysing data from relevant information which has been obtained from the sources which individual researchers have identified as meeting the requirements of their proposed studies (Tashakkori and Teddlie, 2010). An example of a qualitative research design is the phenomenological. Research which has a phenomenological basis prioritises the meanings which the participants ascribe to the events, occurrences, or phenomena which are of interest to individual researchers. Meanings are derived from the active participation of both researchers and the participants in research studies (Ward, 2007; Grant, 2017). According to De Vos (1998) and Creswell (2008), a research design should accord with the nature of a study, the results which are intended to be obtained from it, and the nature of the human interactions which occur while it is being conducted. Accordingly, the adoption of a phenomenological research design permits an understanding of the variables under study to be gained through the meanings, which individual participants give to the variables from their own subjective experiences.

Access to the socially constructed reality of the participants is provided through the medium of language and shared meanings. Another essential feature of phenomenological research designs is that knowledge, meaning, and access to reality are derived from interpretations, because the world is interpreted through reasoning and the meanings, which are attributed to particular phenomena. Implicit in a phenomenological research design is the premise that objective reality does not have an existence, which is independent of the sensory perceptions of reasoning human beings (Paley, 2016). Conducting the study from a phenomenological stand point enables the researcher to elicit finely nuanced responses from the participants, which enables their perceptions, beliefs, and opinions concerning the variables under study.

While a research methodology comprises all of the processes by means of which information is collected, a research design defines the type of study, which is to be conducted in order to answer research questions and achieve its objectives (Kumar, 2014).

1.2 Research methodology

A research methodology comprises the procedures, which are followed by individual researchers to find answers to the research problems which they have identified (Creswell, 2009). A research methodology is defined as representing the point at which methods, facts, and epistemology amalgamate and coalesce in an overt manner (Rajasekar, *et al.* 2006; Chivanga and Monyai, 2019). From the definitions which have been cited, it follows that a research methodology for a study which is to be conducted in any of the social sciences entails a process of investigating specific events, occurrences, or phenomena in the social worlds of people who are of particular interest to individual researchers. As not all research methods are appropriate for particular research methodologies, researchers need to pay particular attention to selecting research methods, which will yield the types of results which they desire.

1.2.1 Research methods

Research methods refer to planned, scientific, and value-neutral procedures, schemes, or algorithms which are used to collect and analyse data in the process of finding a solution to particular problems (Vaismoradi, *et al.*, 2013). Shah and Corley (2006) and Silverman (2015) define research methods which are used in the social sciences as arrays of interpretative techniques which are used to find meanings behind particular phenomena in the social world. The research methods should be selected in accordance with the research problem in order to develop appropriate research instruments, in order to generate data, which is meaningful within the context of the research topic. The difference between a research method and a research methodology is that research method entails the technique employed by the researcher to conduct research whereas research methodology refers to the way of understanding a phenomena.

1.2.2 Differences between quantitative and qualitative research methodologies

The essential differences between qualitative and quantitative research methodologies lie mainly in the ways in which data is analysed. Quantitative methodologies are predicated upon replicability, in that it is assumed that different researchers who use the same data under similar conditions will obtain similar results. By contrast, replicability is not an essential criterion for qualitative research, as qualitative studies prioritise obtaining results which are representative of the perceptions, beliefs, or opinions of the participants in relation to the phenomena which are being investigated (Kumar, 2010).

In addition, quantitative research methodologies are based upon the ontological assumption of objectivity, whereas, qualitative research methodologies acknowledge the existence of multiple interpretations of reality, in the sense that every person who participates in a research study will have his or her own interpretation of the event, occurrence, or phenomenon which is being investigated (Kumar, 2010). Although individual people are likely to interpret phenomena differently, quantitative methodologies are based upon the assumption that the world exists independently of those who observe it, while the notion that the appearance of the world is dependent upon the perceptions of individual observers is inherent in qualitative research methodologies.

In qualitative research, it is the responsibility of each researcher to gather data in a rigorous manner and to make systematic interpretations of particular events, occurrences, or phenomena from the experiences of the participants in their studies. The application of qualitative research methodologies entails researchers placing themselves within the contexts of the events, occurrences, or phenomena which they are investigating, whereas in quantitative research, in the interests of maintaining objectivity, researchers position themselves as outside observers (Shah and Corley, 2006; Chivanga and Monyai, 2020). While qualitative research methodologies are based upon contextualisation, interpretation, and understanding the perceptions, beliefs, and opinions of participants in research studies, quantitative research methodologies are developed in order to generalise, predict and explain causal relationships (Creswell, 2009; Chivanga, 2016). Another significant difference lies in the aim of quantitative research methodologies to test and to prove or disprove the correctness of theories by commencing with clearly articulated hypotheses. By contrast, qualitative research methodologies are developed in order to enable theories and insights to emerge after data has been analysed, without endeavouring to prove or disprove any particular hypotheses (Schoeborn, 2012).

1.2.3 Reasons why researchers choose qualitative research methodology

Qualitative research methodology is a subjective and descriptive means of discerning in-depth meanings of events, occurrences, or phenomena from the perceptions of participants (Vaismoradi *et al.*, 2013). A qualitative research methodology is used for conducting studies not because the researchers believe that qualitative methodologies are necessarily always superior or more appropriate than quantitative ones, but because they are

considered to represent an optimal means of providing in-depth information from the subjective perceptions, beliefs, and opinions from the subjects under study.

A qualitative research methodology enables the researcher to obtain a comprehensive understanding of the meanings, which the participants ascribe to the phenomena upon which the research topic is centred, in a natural setting. As Vaismoradi *et al.* (2013) explain, conducting enquiries in a natural setting has the advantage of enabling researchers to study particular phenomena within the context in which they occur, rather than under laboratory conditions.

Unlike quantitative research methodologies, in which there is an inherent assumption that reality is stable, objective, and measurable and that phenomena which cannot be measured empirically are beyond the scope of research, the basis of qualitative research is subjective, in the sense that it acknowledges the multifaceted nature of reality (Vaismoradi *et al.*, 2013). Qualitative research methodologies enable researchers to make use of inductive reasoning in order to interpret the responses and comments of participants. In addition, as qualitative research methodologies enable researchers to conduct their studies in the settings in which the phenomena in which they are interested occur and to interpret the phenomena on the basis of their own direct experiences and those of the participants who are affected by them, researchers have access to insights which are often not possible to gain through using other research methodologies.

1.3 Target population

A target population is the totality of people, sampling units, or elements with which a particular research problem is concerned (Strydom, 2005).

1.4 Research samples and sample sizes

A research sample comprises a small but representative portion of a target population. One of the criteria which determine the size of the sample is provided by the objective of obtaining in-depth information until saturation is reached. As Shepherd (2002) explains, a very large sample can become unmanageable.

Many factors are taken into consideration during the selection of the sample, such as the lengths of time in which the participants had worked at an organization, the positions which they held in the organisations in which they were employed, and the degrees of seniority which their positions conferred upon them. The intention behind considering the times for which individual participants had worked at an organisation enables the researcher to have access to a degree of institutional memory. The assumption is that people who have worked at an organisation for long periods are likely to be able to provide relevant information, which would not be easily accessible to newly employed members or not yet documented. Consequently, the assumption is that senior members of organisations are likely to be less afraid of disclosing relevant information. The assumption is that people in senior positions are more able to speak openly and are likely to have wider knowledge of the realities than people who are more lowly ranked in their organisations.

1.4.1 Sampling procedure

Sampling refers to a process of selecting participants who are representative of entire target populations in respects in which particular researchers are interested, in order to obtain relevant and detailed information pertaining to particular research topics. Purposive non-probability sampling is an example of a qualitative sampling technique. When researchers use purposive sampling, they select participants whom they judge to be most able to provide the information, which they require (Alston & Bowles, 2003; Van Wyk, 2016). The advantage of non-probability purposive sampling technique is that it enables the researcher to eliminate potential participants who will not provide relevant data, reduce the costs of conducting the study, and concentrate upon participants who will be judged to be particularly suitable for the purposes of the research.

1.5 Research instruments

Research instruments are devices which researchers develop to collect data in order to answer the research questions upon which their studies are premised (Babbie, 2013). The interview guides are formulated to enable the interviewer to maintain the lines of questioning, while at the same time permitting the participants to express their own perceptions, beliefs, and opinions. They also enable the researcher to cover all of the ground, which they had been formulated to cover and to manage time effectively. Patton (2002) explains that interview guides function as checklists, which enable researchers to cover all of the topics, which they consider relevant to their studies during interviews.

1.6 Collecting the data

Face-to-face interviews, focus group discussions, and reviewing relevant documents are examples of data collection methods in qualitative research. Face-to-face interviews enable researchers to collect richly detailed qualitative data from participants by asking relevant questions which yield valid and reliable information (Paley,

2016). In addition, face-to-face interviews enable all of the questions put to participants to be answered to the satisfaction of individual researchers, who are able to ask participants to clarify their responses. The interviews permit the researcher to mine a rich seam of first-hand information which will be relevant to the research topic. In-depth interviews permit qualitative data to be collected from intensive individual question and answer sessions with relatively small numbers of participants through in-depth investigations of their subjective perceptions, beliefs, opinions, and experiences in relation to events, occurrences, and phenomena which are relevant to particular research topics (Denscombe, 2003). They also permit questions to be asked and answered in private settings and enable information pertaining to potentially sensitive topics to be obtained. They can yield crucial, and sometimes even unanticipated, insights and permit follow-up questions to be asked and enable researchers to probe for additional information, without the distractions which can sometimes result in focus group discussions deviating from their intended topics for discussion. As Babbie (2010) explains, owing to their exploratory nature, in-depth interviews permit large volumes of additional qualitative information to be obtained from observations of non-verbal behaviour, such as gestures.

Focus group discussions enable qualitative data to be collected from group interviews in which the members are asked to express their opinions concerning particular topics, with the discussions being guided by a moderator (Creswell, 2008; Silverman, 2015). Among the chief advantages of focus group discussions is their ability to generate a great deal of data in a short space of time. They also permit responses to be clarified and elaborated upon. By putting open-ended questions to the participants in the focus group discussions, the researcher will be able to obtain a diverse range of responses to 'why?' and 'how?' questions in their own words. The discussions also encourage participants who do not wish to be interviewed alone to provide invaluable information. Wilson (2016) explains that focus group discussions are able to generate, at a relatively low cost, crucial and more richly detailed data from groups of participants than interviews with individual participants are able to yield, in some instances.

Document analysis is another way of collecting data. Document analysis entails the use of information which is already available and which may have been used for other purposes (Shepherd, 2002). Books in the university library, government records, newspapers, the websites of NGOs, journals, and reports can be consulted and used to augment the data which the field research generates, in order to corroborate the findings and to provide clarification when it was needed.

1.7 Analysis and recording of the data

Analysing data entails a process of bringing order, structure, and meaning to a large volume of collected data (Silverman, 2015). In short, analysing the data entails organising it, breaking it down into manageable units, coding it, and interpreting it, in order to obtain an in-depth understanding of the phenomenon. Thematic analysis can be used to analyse the data obtained from the interviews, by identifying, recording, and analysing the themes emerging from the data (Vaismoradi *et al.*, 2016).

As Bloor and Wood (2006) explain, by enabling researchers to search for, discern, and identify common themes in the data which interviews have generated, the procedure enables them to probe for reasons behind the phenomena in which they are interested, by analysing the remarks which individual participants make, to whom they are made, and the effects which they produce. Thematic data analysis enables the researcher to answer 'how?' and 'why?' questions. As Braun and Clarke (2006) explain, thematic analysis provides a flexible and useful means of analysing richly detailed data. The thematic analysis has to be performed in accordance with the steps which are enumerated by Vaismoradi *et al.* (2013), namely:

1.7.1 Familiarisation with the data

The researcher must commence with the familiarisation with all of the data, asking relevant questions, and writing down initial ideas. Creswell (2009) explains that the step is an essential one for determining the underlying meanings which are to be discerned in sets of data.

1.7.2 Generating initial codes

The second step entails coding the data, by labelling the entire data set. The researcher should list the topics which are relevant to answering the research questions, cluster them together into columns, and group them into major topics, unique topics, and leftovers.

1.7.3 Searching for themes

The researcher should review the data once more, to identify significant broader patterns of meaning, and assign a code to each relevant topic, collate the codes into potential themes, gathering all of the data which is

relevant to each potential theme in the manner which is suggested by Braun and Clarke (2006). The data which is relevant to each potential theme should then be collated in order to assess its viability as a theme. The data should be reviewed once again in tandem with the lists which had been compiled for each potential theme and appropriate segments of the texts should be written next to each. The preliminary scheme for organising the data should be used to determine whether new categories and codes emerged.

1.7.4 Reviewing themes

The researcher must assess whether the developing themes accords with the coded data and whether they provide answers to the research questions.

1.7.5 Defining and naming themes

The researcher must analyse, refine, and determine the implications of each theme and assign a name to each to convey its import.

1.7.6 Reporting

The researcher should conclude the process by weaving together an analytic narrative with extracts of data. The analysis has to be contextualised in relation to the research questions and relevant extracts from the literature review, which had informed the study to produce a report.

1.8 Ethical considerations

Research ethics are guidelines which enable researchers to uphold the ethical standards of professional research in the social sciences. They are applied to avoid harming participants or violating their rights and require the researcher to be honest in their interactions with the participants in their studies and to treat any information which they provide as strictly confidential (Strydom, 1998). Beecher was among the pioneers in introducing professional ethical standards for research circa 1966 (Pimple, 2017). Confidentiality refers to the guarantee which should be given to the participants that the data which they will provide will not be made available to any unauthorised person. The researcher must provide the research participants with all necessary information, to enable them to make informed decisions to participate in research studies of their own free will. The researcher should give research participants assurance from the onset that their participation would not result in any harm to them or anyone in accordance with both the protocols and the stipulation of Bless and Higson-Smith (2000) that researchers should not harm the people who choose to participate in their studies. It is also essential to maintain the anonymity of the participants and to treat the data, which they provide as being confidential. In order to uphold the rights of the participants, the principle of informed consent must be rigorously adhered to. Informed consent requires potential participants to be adequately informed of the nature of research studies before they agree to participate in them (Thackray, 2018). In order to uphold the principle of informed consent, the researcher has to provide a comprehensive explanation of the nature and purpose of the study and the approximate likely duration of their participation. Participants need to be informed that they have the right to withdraw their participation at any time during the conducting of the study, without incurring penalties of any sort whatsoever.

1.9 Methods employed to verify the data

All forms of human inquiry are prone to error, data has to be appropriately verified to minimise the possibility of error. The verification of qualitative data entails a process of checking the truthfulness of findings by following procedures to apply criteria such as truth value, applicability, and neutrality. Truth values are tested by assessing the truth of data against the understanding of the subjective perception, beliefs, and opinions of participants which individual researchers have acquired during the course of conducting their studies. The applicability of findings is evaluated by determining whether the findings which are obtained from research samples are applicable to and representative of the target populations from which they have been drawn. The criterion of neutrality requires researchers to set aside personal biases and concentrate solely upon the data which they have obtained from participants and to take all reasonable measures to avoid influencing it (Krefting, 1991; Johnson & Rasulo, 2017). The researchers must maintain a strictly neutral stance and avoid any possible forms of personal bias at all times during the conducting of the study. The possibility of errors tainting the findings can be precluded by comprehensively documenting the processes by means of which the data was analysed to enable the logic of the analysis to be evaluated at any point.

1.10 Conclusion

In an endeavor to provide a precise and sufficiently comprehensive description of the qualitative research methodology, the researcher provided a reasoned justification for conducting a qualitative study. The concepts of target populations, research samples and the technique for selecting the qualitative research sample were elucidated. The ethical standards which should be adhered to at all times during conducting of the qualitative research were covered in detail, before the paper concluded with a discussion of the criteria which should be

applied in order to minimise the possibility of the findings being rendered unreliable owing to unanticipated sources of error.

1.11 References

- Alston, M., and Bowles, W. (2003). *Research for social workers*. London: Routledge
- Babbie, E. (2010). *The practice of social research*. London: Wadsworth Cengage Learning.
- Babbie, E. (2013). *The practice of social research*. London: Wadsworth Cengage Learning.
- Bless, C. and Higson-Smith, C. (2000). *Fundamentals of social research methods: An African perspective*. 3rd Edition. Capetown: Juta.
- Bloor, M. and Wood F. (2006). *Keywords in Qualitative Methods: A Vocabulary of Research Concepts*. London: Sage Publications.
- Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research Psychology*, 3: 77–101.
- Chivanga, S. Y. (2016). Qualitative research methodology and numbers. *Journal of Social Sciences*, 47(2), 119-122.
- Chivanga, S. Y. (2018). The implementation of the Millennium Development Goals (MDGs) and poverty reduction in Zimbabwe: the role of Official Development Assistance (ODA)
- Chivanga, S. Y., & Monyai, P. (2019). From the darling of the superpowers to a pariah state: Zimbabwe's Official Development Assistance journey. *African Journal of Democracy and Governance*, 6(4), 51-76.
- Chivanga, S. Y., & Monyai, P. B. (2020). Scramble for mutual partnerships? The case of China and Zimbabwe. *Journal of African Foreign Affairs*, 7(2), 7-20.
- Creswell, J.W. (2008). *Educational research: planning, conducting and evaluating quantitative and qualitative research*. New Jersey: Upper Saddle River.
- Creswell, J.W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Thousand Oaks: Sage Publishers.
- Denscombe, M. (2003). *The good research guide for small scale research projects*. Maidenhead: Open University Press.
- De Vos, A. S., & Van Zyl, C. G. (1998). The grounded theory methodology. *Research at grass roots: A primer for the caring professions*. Pretoria: JL van Schaik Publishers, 265-276.
- Grant, J. (2017). Education Studies and the uses of Literary Form: towards student engagement with educational theory. *Education*, 8(1):19-34.
- Inglesi-Lotz, R. (2017). Social rate of return to Research and Development on various energy technologies: Where should we invest more? A study of G7 countries. *Energy Policy*, 101:521-525.
- Johnson, S., and Rasulova, S. (2017). Qualitative research and the evaluation of development impact: incorporating authenticity into the assessment of rigour. *Journal of Development Effectiveness*, 9(2) 263--276.
- Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of occupational therapy*, 45 (3): 214-222.
- Kumar, P.A. (2010). *Modern research methodology: New trends and techniques*. Paradise Publishers.
- Kumar, R. (2014). *Research methodology: A step-by-step guide for beginners*. Sage.

- Masukume, P. M., Makaka, G., & Mukumba, P. (2018). Optimization of the Power Output of a Bare Wind Turbine by the Use of a Plain Conical Diffuser. *Sustainability*, 10(8), 2647.
- Paley, J. (2016). *Phenomenology as Qualitative Research: A Critical Analysis of Meaning Attribution*. London and New York: Routledge.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. (3rd ed.). London: Sage.
- Pimple, K.D. (2017). *Research ethics*. Hampshire: Ashgate. Routledge
- Rajasekar, S., Philominathan, P., and Chinnathambi, V. (2006). *Research methodology*
- Schoenborn, J. (2012). *A case study approach to identifying the constraints and barriers to design innovation for modular construction* (Doctoral dissertation, Virginia Tech).
- Shah, S., & Corley, K. (2006). Building Better Theories by Bridging the Qualitative-Quantitative Divide. *Journal of Management Studies*, 43(8).
- Shepherd, J. (2002). *Sociology*. Wadsworth: Belmont.
- Silverman, D. (2015). *Interpreting qualitative data*. London: Sage.
- Strydom, H. (2005). Ethical aspects of research in the social sciences and human services professions in De Vos, A.S. *Research at grass roots: for social sciences and human services professions*. Pretoria: Van Schaik .
- Strydom, H. (2014). An evaluation of the purposes of research in Social Work. *Social Work/Maatskaplike Werk*, 49(2):149-164
- Thackray, L. (2018). Anonymity, Confidentiality and Informed Consent: Exploring Ethical Quandaries and Dilemmas in Research with and About Disabled Children's Childhoods. In *The Palgrave Handbook of Disabled Children's Childhood Studies* (pp. 299-313). London: Palgrave Macmillan
- Van Wyk, J. and Carbonatto, C. (2016). The social functioning of women with breast cancer in the context of the life world: a social work perspective. *Social Work*, 52(3):439-458.
- Vaismoradi, M., Turunen, H., and Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and health sciences*, 15:398-405.
- Ward, T. (2007). Regendering data: quantifying qualitative. *Paper presented at the annual forum of Association for Institutional Research*. Atlanta, Georgia.
- Wilson, V. (2016). Research Methods: Focus Groups. *Evidence Based Library and Information Practice*, 11, 1(S): 44-46.