

The Social Science Research Process: A New Model

Werner de Klerk*, Megan C. Barnard, Elinda de Klerk, Ryan E. du Toit, Jessica Daniel-Smit

School of Psychosocial Health, Community Psychosocial Research (COMPRES), Faculty of Health Sciences, North-West University, Potchefstroom, South Africa Email: *12998699@nwu.ac.za

How to cite this paper: de Klerk, W., Barnard, M. C., de Klerk, E., du Toit, R. E., & Daniel-Smit, J. (2023). The Social Science Research Process: A New Model. *Open Journal of Social Sciences, 11*, 156-173. https://doi.org/10.4236/jss.2023.1111010

Received: October 4, 2023 Accepted: November 13, 2023 Published: November 16, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/

CO Open Access

Abstract

Scholars, researchers, and practitioners across various fields of study have collectively come to recognise and prioritise the research process. However, students, researchers, and practitioners often confuse, if not neglect, important elements of the research process. Therefore, it is the purpose of this paper to propose a basic model that will guide one's research process in the Social Sciences. This proposed model is aimed at creating a foundation from which to understand and implement the research process. The authors of this paper hope that the proposed model will provide social science researchers with a clear and simple plan on how to approach any research study enabling them to conduct sound scientific research.

Keywords

Social Science, Research Process, Research Question, Ontology, Epistemology, Methodology, Methods, Rigour, Ethics

1. Introduction

The significance of research in acquiring and advancing knowledge cannot be overstated (Umar & Usman, 2015). Scientific research processes are vital in the development and continuity of scientific inquiries and theory development (Umar & Usman, 2015). Resultantly, scholars, researchers, and practitioners across various fields of knowledge have collectively come to recognise and prioritise the research process (Umar & Usman, 2015). However, students, researchers, and practitioners often confuse, if not neglect, important elements of the research process. Therefore, it is the purpose of this paper to propose a basic model that will guide one's research process in the Social Sciences, highlighting many elements of the research process and the importance of their interconnectedness (Grix, 2002).

2. Conceptualization of Social Science Research

Gerring (2001) highlights that Social Science is not merely the sprout of the natural sciences or humanities, but rather, it is a unique realm of inquiry with a somewhat distinctive set of norms and practices. Social Science research is concerned with the study of individuals, society, and human interaction. However, this goes beyond the simple observation of these entities. As highlighted by Umar and Usman (2015), research in the Social Sciences is initiated with an observable phenomenon and then a topic that captures the essence and intention of the researcher.

In contradiction to what is believed, Social Science research is more than simply the observation of individuals, society, and human interaction (Bryman, 2012). It speaks to the scientific approaches that are employed by Social Science researchers when conducting research in all its phases such as formulating research aims, choosing research methods, securing research participants, collecting-, analysing-, and interpreting data, and disseminating the findings or results to others (Bryman, 2012; Gerring, 2001). As with the Natural Sciences, Social Sciences also employ a scientific and empirical research process. Therefore, it would be biased to assume that Social Science research lacks a scientific foundation when applying scientific methods to investigate and explore human behaviour. Even though Social Science research may not be a mirror image of other sciences, this in no way diminishes its scientific foundation. It is only by following systematic and scientific procedures that Social Science researchers can objectively study social reality and gain a valid understanding of it (De Vos & Strydom, 2011; Lawal, 2019). To illustrate these systematic and scientific processes, the authors of this paper would like to propose a basic model of the research process in the Social Sciences. This model is aimed at creating a foundation from which to understand and implement the research process (see Figure 1).

In the next section of this paper each phase of the proposed model will be discussed.

2.1. Worldview

The worldview of a researcher offers different beliefs about what can be known and how it can be known (Wright et al., 2016). This influences and shapes the type of research question that one is inclined to ask. As a result of the interconnectedness of the research process, this then consequently influences the data collection and analytic methods one utilises (Wright et al., 2016). As researchers, it is important to examine one's philosophical assumptions as well as the philosophical assumptions that underpin one's research question before proceeding with the research process (Wright et al., 2016). Our philosophical assumptions refer to the coloured glasses we wear that influence how we view the world and how we structure our thoughts about what we see in the world (Bryman, 2012). Therefore, our philosophical assumptions, and our worldview, are comprised of

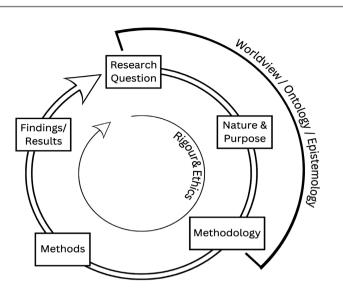


Figure 1. Proposed basic model of the research process in the Social Sciences.

our ontology and epistemology (Wright et al., 2016).

2.1.1. Ontology

Ontology is the point in every research study from which one's epistemological and methodological viewpoints logically follow (Grix, 2002). Ontological claims are assumptions about the nature of social reality (Sefotho, 2022): what exists, what it looks like, what units compose it, as well as how these units interact with one another (Grix, 2002). Our ontology ultimately aims to answer the question: *What can we know*? (Wright et al., 2016). As stated by Wright et al. (2016), ontological viewpoints can be placed on a continuum. On one hand, a researcher may believe that an observable reality exists independent of our knowledge of it (Wright et al., 2016). Where on the other hand a researcher may believe that reality is subjective and socially constructed with no universal truth to be discovered (Wright et al., 2016). What should be noted, however, is that any ontological lens the researcher uses to study people participating in some social reality, has an influence on the research study (Sefotho, 2022).

2.1.2. Epistemology

Hereafter, we need to consider our epistemology which speaks to our knowledge-gathering process (Grix, 2002) to answer the question: *How can we know*? Epistemology is interested in the methods for acquiring knowledge of social reality (Grix, 2002). In essence, it speaks to the claims regarding how something that is presumed to exist can be known (Nieuwenhuis, 2016). Wright et al. (2016) also state epistemology is directed by the ontology and that one can place epistemological positions on a continuum.

2.1.3. Putting Ontology and Epistemology into Context

To conduct, interpret, explore, predict, and/or explain Social Science research, it is necessary to have a basic understanding of the philosophical principles and theoretical assumptions immersed in the discipline (Moon & Blackman, 2014). The research process is directional, meaning that every step in the process is logically aligned with another (Moon & Blackman, 2014). Thus, our ontology and epistemology have a direct impact on what we choose to study and how we go about studying it (Al-Ababneh, 2020; Grix, 2002; Grix, 2018; Moon & Blackman, 2014; Scotland, 2012). These principles and assumptions are directly embedded in the methodology of Social Science research (Moon & Blackman, 2014). The principles and assumptions we use to organise our reasoning and observation influence our research approach and design and how we conduct research (Moon & Blackman, 2014). Therefore, it remains necessary and crucial to become closely acquainted with the philosophical assumptions surrounding Social Science research.

2.2. The Research Question: The Starting Point and Ultimate Destination

The nature and complexity of a research problem directly impacts the chosen topic and ultimately the direction of the research process (Umar & Usman, 2015). The topic of one's research and the statement of the problem are inherently connected (Umar & Usman, 2015). With one being a direct consequence of the other (Umar & Usman, 2015), resultantly, both aspects provide a clue and direction for the research journey (Umar & Usman, 2015). It is from our topic and problem statement that our research question, and the resultantly, research process, arises. Therefore, it can be said with certainty that our research question forms the foundation from which we will embark on our research journey (Umar & Usman, 2015).

Developing a research question, and subsequently hypothesis, are a prerequisite to defining the purpose of the research, as well as its specific objectives (Barroga & Matanguihan, 2022). It is therefore important to highlight that the research question is defined as "what a study aims to answer once data analysis and interpretation" have been completed (Barroga & Matanguihan, 2022: p. 2). The research question acts as the point of orientation (see Figure 1) which emphasises the different parts and variables of the research study needed to address the problem highlighted by the research question (Barroga & Matanguihan, 2022). A research question demonstrating high quality should clarify the research writing as well as provide an understanding of the research topic, objective, scope, and limitations of the research study (Barroga & Matanguihan, 2022).

A research hypothesis, on the other hand, is an educated prediction of an expected outcome that is based on background research and current knowledge (Barroga & Matanguihan, 2022). The research hypothesis either provides a precise prediction about a novel phenomenon or makes a formal statement about the predicted relationship between an independent variable and a dependent variable (Barroga & Matanguihan, 2022). It offers a preliminary solution to the research issue to be tested or explored (Barroga & Matanguihan, 2022). Hypothes-

es utilise reasoning to make predictions about outcomes that are based on theories (Barroga & Matanguihan, 2022). These predictions can also be derived from existing theories by focusing on aspects that have not yet been observed (Barroga & Matanguihan, 2022). The validity of hypotheses often depends on the testability of the prediction through reproducible experiments (Barroga & Matanguihan, 2022). On the other hand, hypotheses can also be restated as research questions (Barroga & Matanguihan, 2022). To answer a research question, multiple hypotheses based on existing theories and knowledge may be necessary (Barroga & Matanguihan, 2022).

Developing ethical research questions and hypotheses establishes a research design that establishes logical connections between variables (Barroga & Matanguihan, 2022). These relationships serve as a strong foundation for conducting the research study (Barroga & Matanguihan, 2022). In contrast, poorly constructed research questions can lead to inadequately formulated hypotheses and improper research study designs, resulting in unreliable outcomes (Barroga & Matanguihan, 2022). Therefore, formulating relevant research questions and verifiable hypotheses is crucial when embarking on scientific research (Barroga & Matanguihan, 2022).

As much as our research questions mark the beginning of our research journey, it is also the destination that we aim to reach. As can be seen in Figure 1, the model presented begins and ends with the research question. This is due to the fact that our research question begins this process, however, by the end of the process one should take a step back and ask: "Did I answer the research question?" The research question is the first and most important step in the research process which serves to orientate the investigation (Bryman, 2007). It is from our research question that important decisions regarding approach, design and methods are made to address the research question (see Figure 1). As emphasised by Grix (2002) a researcher cannot simply choose a method based on familiarity or favouritism and then resultantly force the other elements of the research process to align with this method. Instead, researchers should be directed by the research question (Grix, 2002). It is the research question that will directly influence the nature and purpose of the research, the methodology, methods, and sources of the research study (Grix, 2002). As emphasised by Bryman (2007), the research question plays a pivotal role in the research process and prevents a researcher from conducting undisciplined data collection and analysis.

The research question plays an important role in guiding researchers in identifying the nature and purpose of their investigation. It is the research question that informs one as to the nature of their research: *deductive or inductive*? Additionally, it aids the researcher in identifying the purpose of their research: *exploratory, descriptive, interpretive/explanatory, or predictive.*

2.3. The Nature and Purpose of Social Science Research

2.3.1. The Nature of Social Science Research

Once the research question has been determined, the proceeding step is to estab-

lish whether the research is deductive or inductive in nature. This step is often overlooked, resulting in research projects that lack methodological alignment. Additionally, many also hold common misperceptions such as: *quantitative research is deductive*, and *qualitative research is inductive*, often forcing a person in a specific direction instead of allowing the research question to guide the decision. All research approaches (quantitative, qualitative, mixed-methods, multi-method, literature reviews) can have either deductive or inductive reasoning behind them, it all depends on the identified problem informing the researchers' research question and/or hypothesis. In addressing this, let's begin by defining these terms (see Wagner, 2012).

1) Deductive Reasoning

Deductive reasoning involves developing a hypothesis from a theory and then collecting evidence that will confirm or deny this hypothesis (Wagner, 2012). Hence, deductive research is theory-driven (Wagner, 2012). In using a deductive form of scientific inquiry, the researcher will begin the process with a theory, after which they will then use data to test the theory. In other words, they will take the same steps as inductive researchers but in reverse order, resultantly moving from general to specific conclusions. The researcher examines previous work, reads existing theories about the phenomenon under investigation, and then tests hypotheses that emerge from those theories. The researcher can then deny or confirm these hypotheses (DeCarlo, 2018). Figure 2 depicts the steps involved in conducting deductive research.

Regarding inductive reasoning, one would first gather information from a sample of individuals and then draw general conclusions (Wagner, 2012).

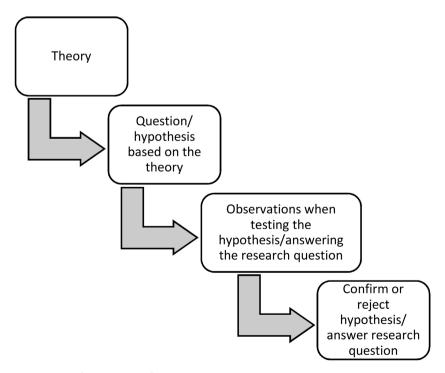


Figure 2. Deductive scientific reasoning.

2) Inductive Reasoning

When conducting research through the use of inductive scientific reasoning the researcher will begin by collecting data that is relevant to their research (DeCarlo, 2018). Once the required amount of data has been acquired, the researcher takes a step back and considers a bird's eye view of the data to find a pattern in the data (DeCarlo, 2018), resultantly, aiming to develop a theory that could explain these patterns (DeCarlo, 2018). An inductive research approach begins with a set of observations, after which, researchers proceed from those specific experiences to a more general set of assertions about those experiences (DeCarlo, 2018). Resultantly, researchers move from the specific to the general (DeCarlo, 2018). Figure 3 depicts the steps involved in conducting inductive research.

The nature of one's research study will be informed by the research question and should not be established based on which approach is used. Therefore, the nature of research is not strictly dependent on the approach one utilises but should rather be guided by the research question that is being posed. It is of note to recognise that *all* scientific research can be either deductive or inductive in nature.

2.3.2. The Purpose of Social Science Research

Often, scholars and academics overlook the importance of the purpose for which the research study is being conducted that is: exploratory, descriptive, interpretive/explanatory, or predictive. Thus, perpetuating the misconception of *starting at the finish line*, jumping straight ahead try to neatly fit all other research aspects into their preferred methodology without any consideration for the purpose of one's research. It is crucial to recognise and understand that all Social

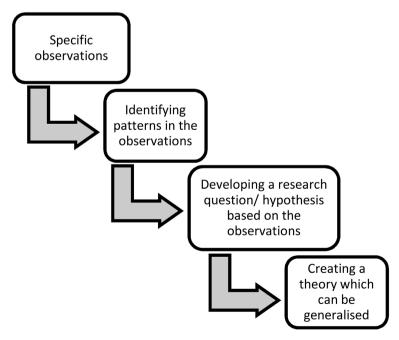


Figure 3. Inductive scientific reasoning.

Science research is guided by a purpose and depending on this purpose, scientific research can be grouped into exploratory, descriptive or interpretative/explanatory (Bhattacherjee, 2012; Wagner, 2012). Interestingly, another category has also come to light within Social Science research. That is Social Science research which is predictive in nature (Lawal, 2019).

A common trend identified by the authors of this paper is that often some training practices and published work refer to these concepts (exploratory, descriptive, interpretive/explanatory, predictive) as their approach or design within the research study. However, the authors of this paper propose that it is the purpose of one's research study that will inform and determine the approach and design of the research study. Therefore, how one's research is formulated (the wording used) will indicate the nature of the research study which will then allow you as a researcher to select the most appropriate approach and design (basically your methodology).

1) Exploratory

Exploratory research aims to generate questions that future research can solve and is often conducted in new areas of inquiry with a focus placed on addressing the question of Social Science research (Bhattacherjee, 2012; Wagner, 2012). It can be used to determine the scope or extent of a specific phenomenon, problem, or behaviour, to produce some preliminary hypotheses about that phenomenon, or to determine whether it is feasible to carry out a more in-depth exploration into that phenomenon (Bhattacherjee, 2012; Wagner, 2012).

2) Descriptive

True to its name, the nature or purpose of descriptive research is to develop an in-depth, detailed image or understanding of a social situation or relationship (Wagner, 2012). It looks at the *how* and *who* questions that are asked in Social Science research (Wagner, 2012). The goal of descriptive research is to make careful observations and detailed documentation of the phenomenon of interest (Bhattacherjee, 2012).

3) Interpretive/Explanatory

Interpretative or explanatory research is aimed at developing an explanation of the *why* questions asked in Social Science research (Bhattacherjee, 2012). It assists researchers in finding the reasons and causes for observed phenomena, problems, or behaviours (Bhattacherjee, 2012; Wagner, 2012).

4) Predictive

Verhagen (2022) emphasises that a prediction is an underused tool within the Social Sciences and even when it is used, this is done incorrectly. Within the Social Sciences, the misconception held is that: *prediction is simply narrowly pre-dicting the future* (Verhagen, 2022). However, Verhagen (2022) offers a simple yet effective understanding of predictive Social Science research: Prediction is the process of evaluating a model's ability to approximate an outcome of interest. Prediction can address enduring sources of criticism plaguing the Social Sciences, like a lack of assessing a model's ability to reflect the real world, or the use of overly simplistic models to capture social life.

2.4. Social Science Research Methodology

When considering the methodology of a given research study this speaks to choosing the most appropriate approach and design to answer the research question. Before going any further with this discussion, the authors of this paper wish to differentiate between the research approach and the research design as these terms refer to different aspects of the research process. Grix (2002) states that the researcher's methodological approach is underpinned by and reflective of a specific philosophical assumption. It represents the choice of approach and research methods that one will adopt in a given research study.

2.4.1. Approach

Social Science research can encompass several research approaches such as quantitative (Maree & Pietersen, 2016), qualitative (Nieuwenhuis & Smit, 2012), mixed-methods (Tashakkori & Teddlie, 2003), multi-method (Blackman & Fitz-gerald, 2014), as well as literature review (Grant & Booth, 2009) studies. According to Greenhalgh (2018), Social Science research can be conceptual, empirical, quantitative, qualitative, descriptive, analytical, or a combination of each of these. However, simply knowing these approaches is not enough, it is the responsibility of the Social Science researcher to become acquainted with these approaches before implementing them as each one is governed by its scientific process.

2.4.2. Design

A research design refers to the blueprint for conducting one's research study, it outlines the procedures, methods, and techniques that will be employed to gather and analyse data to answer the research questions or achieve the research objectives. Research design encompasses decisions regarding and informing the methods one will use such as sampling, data collection methods, data analysis techniques, and the overall structure of the research study (Creswell, 2014). Within each approach lies various designs available to conduct a research study.

2.4.3. Putting the Approach and Design into Context

The approach of your research study is therefore either quantitative, qualitative, mixed-methods, multi-method, or a literature review. Within each of these different research approaches, there are different research designs (see Bloomfield & Fischer, 2019; Creswell et al., 2003; Creswell et al., 2007; Creswell & Poth, 2018; Grant & Booth, 2009; Fouchè & Roestenburg, 2022). If it deems necessary to conduct a research study within the Social Sciences it is pivotal to gain an appreciation of the choices available, but more so, it is important to ensure that the correct research procedures are implemented (Bhattacherjee, 2012). Applying the research process incorrectly can lead to detrimental consequences on how researchers improve and apply their research skills (Scott Jones & Goldring, 2015), develop theories (Ngulube, 2013), or even the integrity of the research

results or findings (Levitt et al., 2017).

2.5. Methods

Although the methodology of the research study is linked to the research methods one will employ, it is important not to confuse these concepts (Grix, 2002). In the research process, when discussing methods this model refers to the procedures and techniques that are used to collect and analyze data (Grix, 2002). It is at this part of the research process that one begins to consider the population, sample, data collection procedures, and data analysis techniques. Before we can determine what our data collection and data analysis strategies will be, we must begin by determining our population and sample. The population and sample of a research study are imperative and add value to the quality of one's research and its findings or results (Umar & Usman, 2015). Let's begin by differentiating between the population and sample of a research study.

2.5.1. Population and Sample

Ideally, as researchers in the Social Sciences the most effective strategy would be to investigate a population in its totality (Acharya et al., 2013). However, it is not always practically possible to research a whole population (Acharya et al., 2013). Resultantly, our next best option is to study a sample that is both large enough and representative of an entire population (Acharya et al., 2013). A sample can therefore be understood as a subset of the population under investigation (Acharya et al., 2013).

When choosing a sampling technique in the Social Sciences, researchers can make use of probability or non-probability sampling. Let's begin by defining these terms. Probability sampling is used to ensure that every member of a population has an equal (but independent) opportunity to be selected at random for a sample (Acharya et al., 2013). Resultantly the researcher would require access to the whole population from which the sample is randomly selected. Whereas non-probability sampling employs a non-random technique in which the probability that a participant will be selected is unknown, rather participants may be selected due to availability and willingness to participate (Acharya et al., 2013). The authors of this paper wish to emphasise that choosing a specific approach (quantitative, qualitative, mixed methods, etc.) does not imply that one has to use a specific sampling technique. Resultantly, just because you are conducting a quantitative study does not mean that you may only use probability sampling techniques. The same can be said for qualitative research, one does not only have to make use of non-probability sampling when employing this approach. It is important to note that your choice of sampling technique should be informed by the context of the research (Wagner, 2012).

Data collected and analysed for a research study, can be obtained through primary and secondary sources (Ajayi, 2017). Primary sources of data can be seen as the researcher being the first person to obtain the data and secondary sources is where the researcher obtains data that has already been collected by other sources, for example data that has been disseminated/published in a peer-reviewed, scientific journal (Ajayi, 2017). The sources used for data collection play an important role in the analysis thereof. Ajayi (2017) emphasises the importance that the specific sources of the study should align with what the research question posed at the beginning of a research study. In doing so, the identified sources will lead to data collection that will ultimately answer the research question (Ajayi, 2017).

2.5.2. Data Collection and Analysis

It is essential for the Social Science researcher to understand the interrelationship of the key components of research when deciding which data collection method and/or data analysis technique should be implemented within their research study. This is because the research approach and design will determine what data collection method(s) and data analysis technique will most appropriately address the research question (Grix, 2018). Numerous types of data collection methods can be utilised within Social Science research, for instance measuring instruments (questionnaires, checklists, scales, etc.), interviews (structured or unstructured), observations, documents, and much more. However, it is important to remember that the chosen data collection method(s) for a research study should be aligned with the chosen approach and design to best address the main research question (Roestenburg, 2022).

When determining the data analysis technique, the authors are of the opinion that the nature of the research (exploratory, descriptive, interpretive/explanatory, or predictive) should also be considered. This is because certain data analysis techniques were developed with a specific purpose in mind, such as to explore the data more in-depth or to provide a description based on the data collected. Therefore, the Social Science researcher can justify the utilisation of a specific data analysis technique by referring to 1) evidence-based practices linking a specific research approach, design, data collection method, and analysis technique, or 2) the nature of the research. As already mentioned earlier in this paper, when choosing the data collection method(s) and/or data analysis technique, the Social Science researcher needs to ensure that their choice is not based on preference or what they are comfortable with (thus, method-led) (Grix, 2018). Rather, their choice should be based on what is methodologically sound and what will best address the research question (thus, question-led) (Grix, 2018). Only then will the Social Science researcher produce good, scientific research (Grix, 2002).

2.6. Findings or Results

Hahn Fox and Jennings (2014) argue that among methodology, the findings and results from a research study remain one of the most informative and important pieces. The authors further state that if the findings and results of a research study are portrayed in a clear and concise manner, it becomes the foundation for future research studies (Hahn Fox & Jennings, 2014). The study of Bavdekar (2015) highlights the importance that the findings and results of a research study

should aim to answer the research question which is stated at the beginning of a research study. The research process requires orderly and simplistic logical writing, whereas the findings and results require logical thinking, reflection, and critical appraisal (Bavdekar, 2015). Although there are numerous factors to consider when doing the write-up of the findings and results section, Bavdekar (2015) proposes the following important aspects to be presented: 1) a thorough and in-depth interpretation of the findings and results, 2) to compare and contrast the research study findings and results with those of previous studies, and lastly 3) to ensure that conclusions drawn from the findings and results section are supported by relevant scientific evidence/data and to always provide a balanced and honest viewpoint.

2.7. Rigour and Ethics

We as authors are of the opinion that the rigour and ethical aspects of any research study is not a specific section of the research study in itself, but forms part of the whole process of that relevant research study. Meaning, each phase of the research process (see **Figure 1**) will have a rigorous and ethical element to it. Therefore, researchers always need to consider the rigour and ethics throughout their research study.

2.7.1. Rigour

Krefting (1991) noted that the worth of any research process approach is evaluated by others regardless of the research approach. This entails that all steps within the research process be evaluated to ensure the overall quality of the research. However, to ensure the quality of the research, researchers can not merely evaluate the quality at the finish line of the research but must ensure that adequate criteria and strategies are employed throughout each step of the research to ensure the overall quality of the research (see Guba, 1981; Krefting, 1991; Lincoln & Guba, 1985; Marquart, 2017). In other words, the research process should always be underpinned by certain applicable strategies and criteria relevant to the applied research approach.

Lincoln and Guba (1985) identified four key criteria that could be applied to any research approach that includes: truth value, applicability, consistency, and neutrality. Truth value accounts for the levels of confidence that researchers have within the findings or results as derived from the entire research process. Applicability simply refers to the degree to which findings or results can be applied to other similar contexts. Consistency accounts for the fact that findings or results will be the same if the research is conducted on the same sample or within a similar context. Finally, neutrality refers to the degree to which the research processes are free of bias. Krefting (1991) further provided split strategies within the two major approaches. Within the quantitative approach strategies include internal validity, external validity, reliability, and objectivity, and within the qualitative approach strategies include credibility, transferability, dependability, and confirmability (also see Korstjens & Moser, 2017).

2.7.2. Ethics

According to Wassenaar and Slack (2016: p. 306), "just as poor methodology can compromise the validity and utility of findings [or results], poor ethics can undermine the social value of research". Research ethics involves the application of fundamental ethical principles to research activities which include the design and implementation of research, respect towards society and others, the use of resources and research outputs, scientific misconduct, and the regulation of research. Therefore, we as Social Science researchers need to recognise that "the ability to conduct research is not a right but a privilege and responsibility" (Panicker, 2012: p. 139). This position is driven by the fact that ethical research prioritises the wellbeing of individuals and communities as much as it ensures the rigour of its methods and the scientific integrity of its findings or results (Mikesell et al., 2013).

According to Khumalo and De Klerk (2018), responsible and ethical knowledge production must be prioritised in Social Science research. However, there is usually a greater emphasis placed on the correct and ethical application of scientific methods (Valsiner, 2006). Khumalo and De Klerk (2018) are of the opinion that scientific method is simply a means to knowledge generation, which should never overshadow the integrated knowledge of the studied phenomena as well as the location and temporal context within which they are shaped. As such, scientific methods are mere tools to translate phenomena into data in accordance with the nature of those phenomena and their theoretical constructions (Grix, 2002). The responsibility to be ethical, logically extends to the attempt to create knowledge, beyond just mastering methodology and producing data-driven information (Khumalo & De Klerk, 2018). According to Khumalo and De Klerk (2018: p. 9) the four pathways towards achieving this goal are: "considering the centrality of the phenomenon under study; the researcher's position in relation to the phenomena/subject matter; the centrality of context (history, socio-cultural, temporal and geographical); and the collaboration and engagement with the participants and/or the communities to which they belong". Therefore, an ethically skilled researcher knows the subject content, understands the philosophical outlook and approach, and is a skilled methodologist who approaches empirical work with sensitivity and integrity (Khumalo & De Klerk, 2018).

3. Conclusion

A well-defined research process in the Social Sciences gives research legitimacy and provides scientifically sound findings or results. It also provides a detailed plan that helps to keep researchers on track, making the process smooth, effective, and manageable. The authors of this paper hope that the proposed model will provide researchers within the Social Sciences with a clear and simple plan on how to approach any research study enabling them to conduct sound scientific research.

4. Future Recommendations

The authors of this paper recommend that the proposed model be integrated into the Academic Curricula within the Social Sciences. This research process is applicable to all fields within the Social Sciences and should be implemented by all fields in this domain. The authors encourage academic institutions to integrate this research model into the curriculum beginning at the first-year undergraduate level. This will ensure that future researchers are taught methodologically correct and appropriate research practices at the beginning of their academic journey. Moreover, this proposed model should be used for continuous application throughout all educational levels, to ensure that all future researchers maintain a strong foundation in research methodology and practice.

Acknowledgements

The authors would like to thank Mrs. Adrie Daniel for assisting with the graphical representation of the proposed basic model of the research process in the Social Sciences.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and How of It? *Indian Journal of Medical Specialities, 4,* 330-333.
 <u>https://www.researchgate.net/profile/Anita-Acharya-2/publication/256446902_Sampling</u> <u>Why and How of it Anita S_Acharya_Anupam_Prakash_Pikee_Saxena_Aruna_Nig</u> <u>am/links/0c960527c82d449788000000/Sampling-Why-and-How-of-it-Anita-S-Acharya-Anupam-Prakash-Pikee-Saxena-Aruna-Nigam.pdf</u> <u>https://doi.org/10.7713/ijms.2013.0032</u>
- Ajayi, V. O. (2017). Primary Sources of Data and Secondary Sources of Data. *Benue State* University, 1, 1-6.
 <u>https://www.researchgate.net/publication/320010397</u> Primary Sources of Data and Secondary Sources of Data
- Al-Ababneh, M. M. (2020). Linking Ontology, Epistemology, and Research Methodology. Science & Philosophy, 8, 75-91. http://eiris.it/ojs/index.php/scienceandphilosophy/article/viewFile/500/732
- Barroga, E., & Matanguihan, G. J. (2022). A Practical Guide to Writing Quantitative and Qualitative Research Questions and Hypotheses in Scholarly Articles. *Journal of Korean Medical Science*, 37, e121. <u>https://doi.org/10.3346/jkms.2022.37.e121</u>
- Bavdekar, S. B. (2015). Writing the Discussion Section: Describing the Significance of the Study Findings. *Journal of the Association of Physicians of India, 63,* 40-42. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8& ved=2ahUKEwiQuIy0lcL AhVTfMAKHeTSDrYQFnoECA4QAQ&url=https%3A%2F%2F www.feg.unesp.br%2FHome%2FPos-Graduacao20%2Fpgproducao-mestradoacademico%2 F06 aow writing the discussion-1.pdf&usg=AOvVaw1FVqNGx8O4cOXoZHIa4aip

- Bhattacherjee, A. (2012). *Social Science Research: Principles, Methods, and Practices.* University of South Florida. <u>https://ds.amu.edu.et/xmlui/bitstream/handle/123456789/2480/POLSC251-BHATTAC</u> <u>HERJEETEXTBOOK.pdf?sequence=1&isAllowed=y</u>
- Blackman, D., & Fitzgerald, A. (2014). The Role of a Multi-Method Research Approach on Critical Research. <u>https://www.researchgate.net/profile/Deborah-Blackman/publication/228735913 The</u> <u>role of a multi-method research approach on critical research/links/0912f50a2d8e</u> e130da000000/The-role-of-a-multi-method-research-approach-on-critical-research.pdf
- Bloomfield, J., & Fisher, M. J. (2019). Quantitative Research Design. *Journal of the Australasian Rehabilitation Nurses Association, 22,* 27-30. <u>https://doi.org/10.33235/jarna.22.2.27-30</u>
- Bryman, A. (2007). The Role of the Research Question in Social Research: What Is Its Role? *International Journal of Social Research Methodology, 10*, 5-20. https://doi.org/10.1080/13645570600655282
- Bryman, A. (2012). *Social Research Methods*. Oxford University Press. <u>https://ktpu.kpi.ua/wp-content/uploads/2014/02/social-research-methods-alan-bryman</u>.<u>pdf</u>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). Sage Publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing among Five Approaches* (4th ed.). Sage Publications. <u>https://books.google.co.za/books?hl=en&lr=&id=DLbBDQAAQBAJ&oi=fnd&pg=PP1</u> &dq=Qualitative+inquiry+and+research+design:+Choosing+among+five+approaches. <u>&ots=-hv87bIVOA&sig=sijUUGa8odG7FaZMCSYjBqAI5yo&redir_esc=y#v=onepage</u> &q=Qualitative%20inquiry%20and%20research%20design%3A%20Choosing%20amon <u>g%20five%20approaches.&f=false</u>
- Creswell, J. W., Hanson, W. E., Clark Plano, V. L., & Morales, A. (2007). Qualitative Research Designs: Selection and Implementation. *The Counseling Psychologist, 35*, 236-264. https://doi.org/10.1177/0011000006287390
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced Mixed Methods Research Designs. In A. Tashakkori, & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social and Behavioral Research* (pp. 209-240). Sage Publications.
- De Vos, A. S., & Strydom, H. (2011). Scientific Theory and Professional Research. In A. S. De Vos, H. Strydom, C. B. Fouche, & C. S. L. Delport (Eds.), *Research at Grass Roots* (4th ed., pp. 28-44). Van Schaik Publishers.
- DeCarlo, M. (2018). Linking Methods with Theory. In *Scientific Inquiry in Social Work* (pp. 139-160). Pressbooks.

https://openlibrary-repo.ecampusontario.ca/jspui/handle/123456789/550

- Fouchè, C. B., & Roestenburg, W. J. H. (2022). Quantitative Research Designs. In C. B. Fouchè, H. Strydom, & W. J. H. Roestenburg (Eds.), *Research at Grass Roots* (5th ed., pp. 157-180). Van Schaik Publishers.
- Gerring, J. (2001). Social Science Methodology: A Criterial Framework. Cambridge University Press. <u>https://doi.org/10.1017/CBO9780511815492</u> https://books.google.co.za/books?hl=en&lr=&id=1bf_Ari0lbUC&oi=fnd&pg=PR9&dq =Social+science+methodology:+A+Criterial+framework.+&ots=1FoCV-4U2s&sig=nw er6whI0AR6D-gUK8GemChQT5c&redir_esc=y#v=onepage&q=Social%20science%20 methodology%3A%20A%20Criterial%20framework.&f=false
- Grant, M. J., & Booth, A. (2009). A Typology of Reviews: An Analysis of 14 Review Types

and Associated Methodologies. *Health Information and Libraries Journal, 26*, 91-108. https://doi.org/10.1111/j.1471-1842.2009.00848.x

- Greenhalgh, T. (2018). What Have the Social Sciences Ever Done for Equity in Health Policy and Health Systems? *International Journal for Equity in Health, 17,* Article No. 124. <u>https://doi.org/10.1186/s12939-018-0842-9</u>
- Grix, J. (2002). Introducing Students to the Generic Terminology of Social Research. *Politics, 22*, 175-186. <u>https://doi.org/10.1111/1467-9256.00173</u>
- Grix, J. (2018). *The Foundations of Research* (3rd ed.). Bloomsbury Publishing. <u>https://books.google.co.za/books?hl=en&lr=&id=A5JKEAAAQBAJ&oi=fnd&pg=P1&d</u> <u>q=The+foundations+of+research.+&ots=CR0Y_ivDvL&sig=FW1hINmVahXId2jAeHE</u> <u>WakRH_Zo&redir_esc=y#v=onepage&q=The%20foundations%20of%20research.&f=fals</u> <u>e</u>
- Guba, E. G. (1981). Criteria for Assessing the Trustworthiness of Naturalistic Inquiries. *Educational Communication and Technology Journal, 29*, 75-91. <u>https://link.springer.com/content/pdf/10.1007/BF02766777.pdf</u> <u>https://doi.org/10.1007/BF02766777</u>
- Hahn Fox, B., & Jennings, W. G. (2014). How to Write a Methodology and Results Section for Empirical Research. *Journal of Criminal Justice Education, 25,* 137-156. https://doi.org/10.1080/10511253.2014.888089
- Khumalo, I. P., & De Klerk, W. (2018). Ethical Psychological Research and Community Engagement in a South African Context. In S. Kramer, S. Laher, A. Fynn, & H. H. Janse van Vuuren (Eds.), *Online Readings in Research Methods* (pp. 1-26). Psychological Society of South Africa.

http://www.psyssa.com/wp-content/uploads/2018/10/ORIM-Chapter-4-Ethical-psychologi-

<u>cal-research-and-community-engagement-in-a-South-African-context</u> by-Khumalo-d <u>e-Klerk.pdf</u>

- Korstjens, I., & Moser, A. (2017). Series: Practical Guidance to Qualitative Research. Part
 2: Context, Research Questions and Designs. *European Journal of General Practice, 23,*274-279. <u>https://doi.org/10.1080/13814788.2017.1375090</u>
- Krefting, L. (1991). Rigor in Qualitative Research: The Assessment of Trustworthiness. *The American Journal of Occupational Therapy*, 45, 214-222. https://doi.org/10.5014/ajot.45.3.214
- Lawal, S. A. (2019). Understanding Social Science Research: An Overview. *Lapai International Journal of Management and Social Sciences*, 11, 1-22.
 https://www.researchgate.net/publication/345981416 UNDERSTANDING SOCIAL S
 CIENCE RESEARCH AN OVERVIEW?enrichId=rgreq-aff96840fd44bfe5f841a15c04

<u>da-</u> ca36-XXX&enrichSource=Y292ZXJQYWdlOzM0NTk4MTOxNjtBUzo5NTg4NTQ0Nz cxMzU4NzNAMTYwNTYyMDEzMDQ4Nw%3D%3D&el=1 x 2& esc=publicationC

- overPdf Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017).
- Recommendations for Designing and Reviewing Qualitative Research in Psychology: Promoting Methodological Integrity. *Qualitative Psychology*, 4, 2-22. <u>https://doi.org/10.1037/qup0000082</u>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage. <u>https://books.google.co.za/books?hl=en&lr=&id=20A9aWlNeooC&oi=fnd&pg=PA7&</u> <u>dq=NaturalistiC+inqUiry&ots=0uszT9O9Dk&sig=4vn9I5jDptb1ALflCGz7yQiwYCM</u> <u>&redir_esc=y#v=onepage&q=NaturalistiC%20inqUiry&f=false</u>

- Maree, K., & Pietersen, J. (2016). The Quantitative Research Process. In K. Maree (Ed.), *First Steps in Research* (2nd ed., pp. 162-173). Van Schaik Publishers.
- Marquart, F. (2017). Methodological Rigor in Quantitative Research. In *The International Encyclopedia of Communication Research Methods* (pp. 1-9). Wiley. https://doi.org/10.1002/9781118901731.iecrm0221
- Mikesell, L., Bromley, E., & Khodyakov, D. (2013). Ethical Community-Engaged Research: A Literature Review. *American Journal of Public Health, 103*, e7-e14. https://doi.org/10.2105/AJPH.2013.301605
- Moon, K., & Blackman, D. (2014). A Guide to Understanding Social Science Research for Natural Scientists. *Conservation Biology, 28,* 1167-1177. https://doi.org/10.1111/cobi.12326
- Ngulube, P. (2013). Blending Qualitative and Quantitative Research Methods in Library and Information Science in Sub-Saharan Africa. *Esarbica Journal, 32*, 10-23. <u>http://hdl.handle.net/10500/22397</u>
- Nieuwenhuis, J. (2016). Introducing Qualitative Research. In K. Maree (Ed.), *First Steps in Research* (2nd ed., pp. 50-71). Van Schaik Publishers.
- Nieuwenhuis, J., & Smit, B. (2012). Qualitative Research. In C. Wagner, B. Kawulich, & M. Garner (Eds.), *Doing Social Research: A Global Context* (pp. 124-139). McGraw-Hill Education.
- Panicker, S. (2012). Research Ethics Education in the Behavioural and Psychological Sciences: A Mistaken Case of One-Size-Fit-All. *Teaching Ethics, 12,* 137-140. <u>https://www.pdcnet.org/tej/content/tej 2012 0012 0002 0137 0140</u> <u>https://doi.org/10.5840/tej201212219</u>
- Roestenburg, W. J. H. (2022). Quantitative Data Collection Methods. In C. B. Fouchè, H. Strydom, & W. J. H. Roestenburg (Eds.), *Research at Grass Roots* (5th ed., pp. 199-226). Van Schaik Publishers.
- Scotland, J. (2012). Exploring the Philosophical Underpinnings of Research: Relating Ontology and Epistemology to the Methodology and Methods of the Scientific, Interpretive, and Critical Research Paradigms. *English Language Teaching*, *5*, 9-16. <u>https://eric.ed.gov/?id=EJ1080001</u> <u>https://doi.org/10.5539/elt.v5n9p9</u>
- Scott Jones, J., & Goldring, J. E. (2015). "I'm Not a Quants Person"; Key Strategies in Building Competence and Confidence in Staff Who Teach Quantitative Research Methods. *International Journal of Social Research Methodology*, 18, 479-494. <u>https://doi.org/10.1080/13645579.2015.1062623</u>
- Sefotho, M. M. (2022). Research and Professional Practice. In C. B. Fouchè, H. Strydom, & W. J. H. Roestenburg (Eds.), *Research at Grass Roots* (5th ed., pp. 3-22). Van Schaik Publishers.
- Tashakkori, A., & Teddlie, C. (2003). The Past and Future of Mixed Methods Research: From Data Triangulation to Mixed Model Designs. In A. Tashakkori, & C. Teddlie (Eds.), *Handbook of Mixed Methods in Social and Behavioral Research* (pp. 671-701). Sage Publications.
- Umar, H. S. I., & Usman, M. (2015). The Imperative of Population Sampling in Social Science Research. *Global Journal of Political and Science and Administration, 3*, 49-57. https://www.researchgate.net/profile/Usman-Madugu-2/publication/366867248 THE IMPERATIVE OF POPULATION SAMPLING IN SOCIAL SCIENCE RESEARC H/links/63b5d934c3c99660ebcb0f3b/THE-IMPERATIVE-OF-POPULATION-SAMPL ING-IN-SOCIAL-SCIENCE-RESEARCH.pdf

Valsiner, J. (2006). Dangerous Curves in Knowledge Construction within Psychology:

Fragmentation of Methodology. *Theory and Psychology*, *16*, 597-612. https://journals.sagepub.com/doi/abs/10.1177/0959354306067439?casa_token=k9JRBEi E7wQAAAAA:IDf3jLSCsfiz6CIfjHqakhETV0llWK_XN-a-7TUSXpez0xnqmn7-_iJbhs EmRWp0eVOW02Zb3-TYZ_s https://doi.org/10.1177/0959354306067439

- Verhagen, M. D. (2022). A Pragmatist's Guide to Using Prediction in the Social Sciences. Socius: Sociological Research for a Dynamic World, 8, 1-17. https://doi.org/10.1177/23780231221081702
- Wagner, C. (2012). Introducing Social Research in a Global Context. In C. Wagner, B. Kawulich, & B. Kawulich (Eds.), *Doing Social Research: A Global Context* (pp. 2-11). McGraw-Hill Education.
- Wassenaar, D. R., & Slack, C. M. (2016). How to Learn to Love Your Research Ethics Committee: Recommendations for Psychologists. *South African Journal of Psychology*, *46*, 306-315.

https://journals.sagepub.com/doi/full/10.1177/0081246316654348?casa_token=dDJR_3 pYAb-

<u>sAAAAA%3ApOb-HnFI167Lb9qu2b5z16XRPaFxzy6BFT_BI-2SqLLRx310JYdAmnzFL</u> <u>9iwudnwDPs3iAnVi6JPkP8</u>

Wright, S., O'Brien, B. C., Nimmon, L., Law, M., & Mylopoulos, M. (2016). Research Design Considerations. *Journal of Graduate Medical Education*, *8*, 97-98. <u>https://doi.org/10.4300/IGME-D-15-00566.1</u>