Unit 4

Research methodology

Learning outcomes

After you have studied this unit, you should

- understand the different steps involved in conducting psychological research
- be able to distinguish between the different research designs and their suitability in African settings
- understand the different types of epistemology and ontology and the different methods that are applied in knowledge construction
- understand how psychological knowledge is constructed and has been used to perpetuate scientific racism

4.1 Introduction

There is growing concern over the procedures that psychologists follow when they conduct research in African settings. This is because there is lack of indigenous guidelines to strengthen the research process and to ensure the suitability of the different types of research designs employed by psychologists in conducting research. There is also a debate on how psychologists can apply an indigenous paradigm, epistemology and ontology and indigenous methods in respect of knowledge construction to reduce scientific racism. The idea of ensuring that research in African settings is in line with the African philosophy of life or perception of the world is based on a new call for commitment and determination in developing research approaches and designs that identify and address Africans' problems using their ways of life and beliefs. This implies that research in African settings could be motivated by the desire to identify issues on the basis of their complexity and who is involved.

Given the increase in the study of African psychology, the need to conduct research using indigenous research guidelines has expanded beyond the narrow responsibility of asking participants to respond to a few questions. Conducting research using indigenous guidelines centres on recognising, acknowledging and respecting the scope of Africans' cultural beliefs, attitudes, and physical and spiritual expectations. A researcher must

understand the setting by considering the cultural and spiritual complexities, and the communication and interactional rules of the people involved. This means that, in an African setting, a researcher must be committed to ensuring honesty, compassion and selflessness in working in partnership with the proposed research participants.

4.2 What is psychological research?

Psychological research refers to the study of human behaviour that leads to a better understanding of psychological phenomena. The results of psychological research lead to the development of interventions and treatment plans for psychological problems (Maruish, 2004). Psychology was once thought to be a soft science whose content could not be observed or measured (Beauchaine et al., 2008). As a result, psychologists began to use scientific methods to quantify unobservable psychological constructs. Wilhelm Wundt (1832–1920) conducted the first psychological study. In this study, he connected physiology and human consciousness.

Quantitative research methods were used to study the brain, cognitive functioning and intelligence. While theories of human behaviour were emerging, there was also a need for research that investigated various aspects of human behaviour based on everyday human experience and reality. Qualitative research methods were introduced for this purpose. Results from psychological research help to further the development of therapies and treatment programmes (Maruish, 2004).

4.2.1 Research paradigms

Research does not exist in isolation – it is embedded within a paradigm, which is a set of philosophical assumptions about the phenomenon that is to be studied (Hammersley, 2012). A **paradigm** is a philosophical framework that guides the methodology and the theoretical point of departure of a research study (see table 4.1).

Table 4.1: Comparison between research paradigms (adapted from Aliyu, et al., 2015)

Questions for analysing paradigms		**Research paradigms**		
		Positivism	**Interpretivism**	**Critical theory**
Ontological questions	**Nature of reality**	- An objective, true reality that is governed by unchangeable natural cause-and-effect laws exists - Reality consists of stable pre-existing	- The world is complex and dynamic and is constructed, interpreted and experienced by people in their interactions with one another and	- Reality is governed by conflicting underlying structures – social, political, cultural, economic, ethnic and

		patterns or a pre-existing order that can be discovered - Reality is not time- or context-bound - Reality can be generalised	with wider social systems (i.e., fluid definitions of a situation created by human interaction/social construction of reality) - Reality is subjective, that is, people experience reality in different ways; subjective reality (i.e., what people think, feel, and see) is important - Reality can only be imperfectly grasped - The use of language defines a particular reality	gender structures
	Nature of human beings	- Rational - Shaped by external factors (the same cause has the same effect on everyone, i.e., mechanical model/ behaviourist approach); under certain conditions, people will probably engage in specific behaviour	- Social beings who create meaning and who constantly make sense of their world - People possess an internally experienced sense of reality	- People can design/ reconstruct their own world through action and critical reflection
Epistemological questions	**Nature of knowledge**	- Knowledge can be described in a systematic way - Knowledge consists of verified hypotheses that can be regarded as facts or laws	- Knowledge is based not only on observable phenomena but also on subjective beliefs, values, reasons and understandings	- Knowledge is dispersed and distributed - Knowledge is a source of power - Knowledge is constituted by the lived experiences of

		- Knowledge is probabilistic, that is, it holds true for large groups of people or occurs in many situations - Knowledge is accurate and certain	- Knowledge is constructed - Knowledge is about the *way* in which people make meaning in their lives, not just *that* they make meaning, and *what* meaning they make	people and the social relations that structure these experiences - Events are understood within social and economic contexts
	Role of theory	Theories are - normative - present 'models' - general propositions that explain causal relationships between variables	Theories are - revisable - approximate truth - sensitive to context	Theories are - constructed in the act of critique in a dialectical process of deconstructing and reconstructing the world
	Theory building/ testing	- Postulate theories that can be tested in order to be confirmed or rejected - Prove a theory from observable phenomena/ behaviour - Test theories in a controlled setting, empirically supporting or falsifying hypotheses through the process of experimentation	- Theories are built/ constructed from multiple realities – the researcher has to look at different things in order to understand a phenomenon - Theories are shaped by social and cultural contexts	- Theories are built by deconstructing the world and analysing power relationships
	Role of research	- Uncover reality, that is, natural laws - Scientifically explain/describe, predict and control phenomena	- Study mental, social and cultural phenomena to understand why people behave in a certain way - Grasp the 'meaning' of phenomena	- Promote critical consciousness - Break down institutional structures and arrangements that produce oppressive ideologies and

			- Describe multiple realities	social inequalities - Shift the balance of power so that power may be more equitably distributed - Address social issues - Promote political emancipation and critical consciousness
	Research findings are true if …	- they can be observed and measured - they can be replicated and are generalisable	- the research was a communal process, informed by participants and scrutinised and endorsed by others	- they can help to solve problems within a specific context - the solutions they offer can be applied in other contexts, but as hypotheses to be tested - they unveil illusions
	Role of common sense	- None – only deductive reasoning	- Common sense reflects powerful everyday theories held by ordinary people - Iterative and inductive reasoning is used	- False beliefs that hide power and objective conditions are exposed
Methodological questions	**Role of the researcher**	- Objective; independent from the subject - The investigator often controls the investigated	- Co-creator of meaning - Brings own, subjective experience to the research - Tries to develop an understanding of the whole and a deep understanding of	- Adopts the role of facilitator – encourages the participation and involvement of the 'subjects' who become partners in the research process

			how each part relates and is connected to the whole	
	Role of values	- Science is value-free - Values have no place in research – all bias must be eliminated	- Values are an integral part of social life – no values are wrong; values can differ	- Facts can never be isolated from values - The values of the researcher influence the research
	Methods	- Empirical - Structured and replicable observation - Quantification/ measurement - Experimental – directly manipulate variables and observe	- Unstructured observation - Open interviewing - Discourse analysis - Try to capture 'insider' knowledge	- Participatory action research - Dialogical methods, which encourage dialogue between the researcher and the researched
	Type of studies	- Survey studies - Verification of hypotheses - Statistical analysis - Quantitative descriptive studies	- Field research conducted in natural settings in order to collect substantial situational information - Qualitative research studies	

The philosophical assumptions that form part of a research paradigm make up the components of scientific thinking (that is, epistemology, ontology, axiology and methodology). These assumptions include how individuals or groups of people view their reality, depending on the culture, the environment, the geographical location and the political climate of a specific place. Below are the definitions of the key terms that one needs to understand before embarking on a research project.

4.2.2 Research approach

A **research approach** is the procedure that a researcher selects to collect, transcribe and analyse data with a view to gaining insight into a research problem and to report research findings. The research approach selected can combine the strength of one or more methods of exploring phenomena and generating, analysing and comparing data to generate a better understanding of the issues under investigation. The use of more than

one method in a research study is aimed at answering the research questions in ways that help to clarify and explain the problem being studied. The use of more than one method is suitable for "[e]xploring variation in the construction of the meaning of concepts about how respondents/participants, for instance, make sense of their experiences or report on attitudes in interviews or questionnaires, respectively" (Bergman, 2011, p. 273).

The research approach that is selected for a study, whether single or double, must align with the proposed epistemological and ontological stances; the research question or questions and the theoretical framework of the study; the sampling strategies that are selected; and the method of interpretation that will be used. The purpose of the alignment is to ensure that the research approach enriches the findings by promoting the influence of indigenous perspectives. Linking the research approach that is adopted for a study to an appropriate indigenous paradigm will be helpful in obtaining a true understanding of the lived experiences of both the respondents (quantitative approach) and the participants (qualitative approach) in the study.

4.2.3 Research design

A **research design** is an outlined plan for the investigation of a phenomenon in a research study. The term "research design" refers to the specific processes involved in performing research, such as data collection, data analysis and report writing. The research design of a study that will take place in an African setting should be in line with an indigenous research paradigm. The selection of a research design for a study in an African setting may be influenced by

- the extent of interaction and synergy between the research approach and the indigenous paradigm
- the degree of importance attached to both the research approach and the indigenous paradigm
- the viability and feasibility of using the research approach in aiding the objectives of the study

4.3 Steps involved in conducting psychological research

Research is a systematic process that is followed to study a topic of interest. It involves gathering information and producing knowledge using multiple strategies. A research study is often understood "as an investigation or experiment aimed at the discovery and interpretation of facts" (Porsanger, 2004, p. 106). The process or the steps involved in conducting psychological research are set out in table 4.2.

Table 4.2: Steps involved in doing research (https://www.iedunote.com/research-process#step-3-setting-research-questions-objectives-and-hypotheses)

Process/steps of research	Explanation or description of the process
Identify a research interest or problem	This step involves identifying a topic of interest you want to investigate.
Conduct a literature review	This step involves gathering information that has been produced/published on the topic thus far and summarising it in the form of a literature review.
Set a research question, objective and hypothesis	After you have obtained clarity on the research problem through the information gathered in the literature review, you need to formulate a research question, that is, a question that the study will aim to answer, followed by research objective, that is, a statement of what you intend the study to accomplish. In quantitative research, a research objective is often expressed in the form of a hypothesis to be tested.
Select a research methodology	You need to identify how you will investigate the topic of interest. You must select a research design, a research method, a data collection method and people to study.
Analyse the collected data	This step involves using the selected research method to analyse the data collected (whether in text or audio format).
Arrive at an interpretation of the results and write a research report	This step involves writing a final research report based on the data analysis.

Landman and Yates (2017) propose certain steps that researchers should follow when they embark on research in an African setting. These steps, which are similar to those presented in table 4.2, are set out below.

4.3.1 Selecting a specific researchable topic

Identifying a researchable topic is the first step in conducting research. A researcher can search for a topic in events reported by individuals, families or community members. A

reported problem could be an area of investigation if there is evidence of difficulties encountered by those who experience the problem.

A reported problem, such as when a child constantly cries as a result of molestation but is afraid to tell anyone why he or she is crying, can form the foundation of a more extensive research project. A researcher could, for example, investigate why children in a particular community cry when they interact with a certain individual. This would help uncover new knowledge that has implications for the protection of children against physical, emotional, sexual and psychological abuse and could give parents fresh information to encourage them to take protective measures. In modern Africa, a reported case, such as a child who cries constantly, a child who is beaten by his/her siblings, guardians or other people or a family feud, is a topic that could be investigated. In this case, the researcher will immediately identify individuals named in the report (participants), ask them a series of questions (data gathering), interpret the findings and make suggestions on how to deal with the situation in question.

There are many researchable topics that can be identified from observed problems in families or communities. In an African setting, such problems may occur as people connect, communicate and interact to fulfil their cultural, spiritual and physical responsibilities. Researchers can also look for researchable topics in course modules or learning material. Learning material in the field of psychology could generate a researchable topic related to an African setting. Researchers can also develop researchable topics through reflectivity, group discussions and brainstorming.

There are certain criteria that must be followed in selecting a researchable topic. These criteria are as follows:

- *The topic must be of interest to the researcher.* The researcher should choose a topic that is of interest to him or her to ensure that he or she remains determined, committed and motivated in the face of challenges. The researcher must ensure that a supervisor is available for purposes of mentorship and support.
- *Select a topic from the relevant area of specialisation.* The researcher should select a topic from his or her area of specialisation to reduce experiences of anxiety, frustration and exhaustion.
- *Consult a specialist.* The researcher should consult a professional or a lecturer to help identify a researchable topic.
- *Consider the possible contribution of the research to existing knowledge.* The topic that is selected should contribute to existing knowledge by producing new knowledge or a new idea, and its application ought to transform society.

- *Consider the available timeframe for the research.* The timeframe given by the relevant institution must be considered when selecting a research topic.

4.3.2 Writing a problem statement

A research problem describes a difficult situation or a gap in the existing knowledge about a difficult situation. A change in the usual way of doing things necessitates research to ensure appropriate intervention and adjustment for those affected by the change. A problem statement should define a present difficulty by explaining the current situation, the challenges of the present situation and the proposed way of improving the situation.

In writing a problem statement, the researcher needs to consider what difference the research will make, as well as the new knowledge that the study will produce. Hence, the problem statement must present an honest and clear view, as well as a compelling argument, of why the study ought to be undertaken. Moreover, the problem statement must state the gap that the study aims to fill by contributing to the existing information on the difficult situation through the uncovering of novel truths. The problem statement must be short, clear and precise in identifying and explaining the identified gap in existing knowledge.

4.3.3 Conducting a review of related literature

A literature review is an examination of existing publications on the specific topic of a research study. The literature review sets out the scope of related studies and what has been discovered or is known about the topic. In performing a review of existing literature, the researcher should obtain background information about other studies that have been conducted on the topic, the findings that were reached and the need for further studies on the topic. The researcher should identify relationships between the present study and other studies on the topic. Sources of related literature may include the following:

- *Academic books.* Academic books written by diverse authors can provide innovative ideas that can guide the researcher.
- *Articles in professional journals.* The researcher can consult articles that have been published with respect to the relevant area of specialisation.
- *Peer-reviewed publications.* Academic journals publish papers or manuscripts after a demanding process of blind review by scholars in the applicable fields. The term “blind review” refers to the removal of the details of the authors of manuscripts to prevent bias.
- *Government publications.* Government publications are documents published by governments on their websites. Government publications provide information on

diverse issues and may help the researcher understand key policies and legislation relating to the research that is being undertaken.

Consulting the above-mentioned sources of related literature will

- give the researcher insight into the background of the research
- enable the researcher to give reasons for the proposed research
- enable the researcher to make sure that the planned study is not a replication of another study
- enable the researcher to confirm that the planned study is capable of contributing to the present knowledge about the topic or can produce new ideas
- provide the researcher with the opportunity to learn from theories used in related studies and to apply a specific theory in the present study
- enable the researcher to see how other researchers approached the topic
- enable the researcher to identify recommendations for further studies made by previous studies
- enable the researcher to identify and clearly understand the gaps in previous studies
- allow the researcher to identify the contribution that the planned study will make to the field of psychology and the African setting dealt with in the proposed study
- enable the researcher to identify ways by which to develop, strengthen and improve the topic to be in line with an African paradigm, epistemology and ontology, as well as the cultural beliefs that form part of the setting of the planned study

Writing a review of related literature involves following a well-planned and organised pattern. The three important components of a literature review are an introduction, a body and a summary, which are described below.

- *Introduction.* In the introduction, the researcher should discuss the meaning of the research topic and the importance of the present study with the use of evidence of the work that other scholars have done on both a national and international level.
- *Body.* The body of the literature review should be organised according to specific content or keywords related to the topic. If, for example, the research topic is the well-being of people in rural communities in the province of Gauteng in South Africa during Covid-19, the researcher may divide the topic into themes using keywords to guide the organisation of the content of the literature review. The discussion must contain references to scholars who have produced work on the specific topic. An extensive study of existing literature can contribute to the quality of the literature review.
- *Summary.* Writing a summary of the literature review is important because it allows the researcher to contrast the ideas of the various authors cited. The summary helps to create meaning and to highlight the significance of the topic. Key points or themes

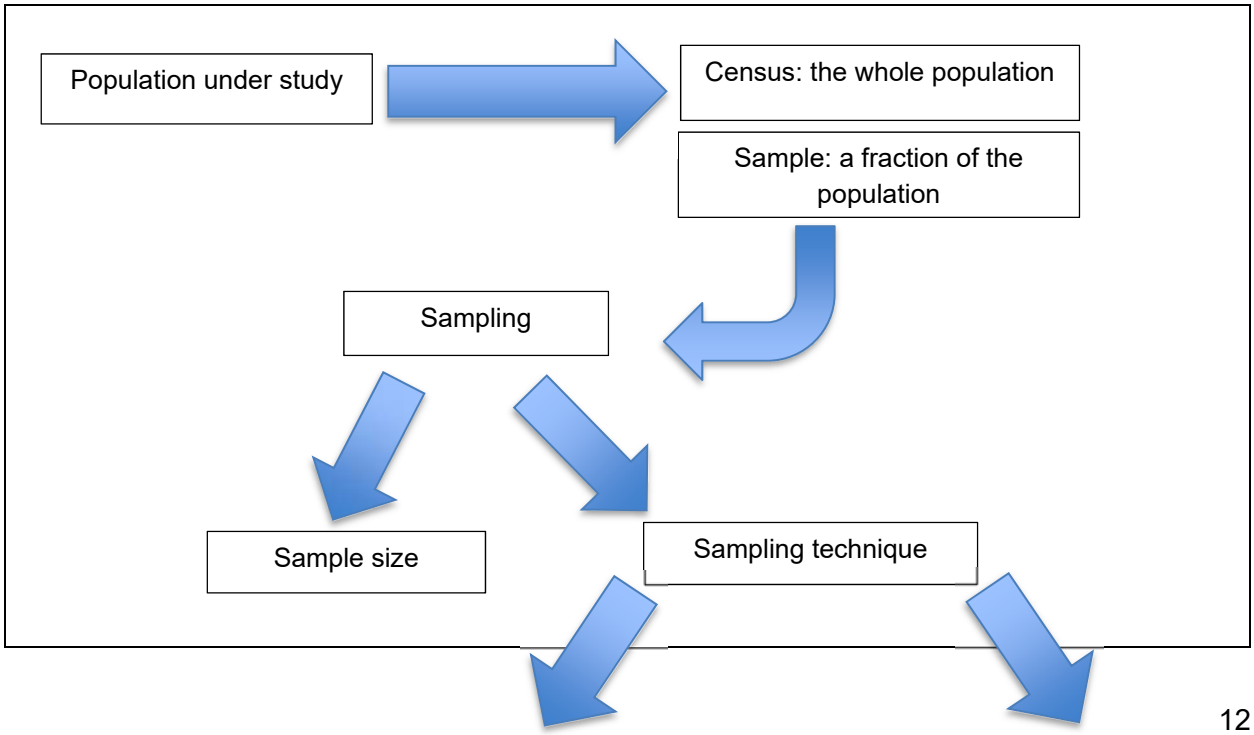
may be explained in the summary to capture important aspects of the topic under investigation.

4.3.4 Selecting a research population and sample for the study

The population and the sample used in a research project are vital to the success of the project. A **research population** is the entire number of people, objects, groups or events in which the researcher is interested, for example, *all* students enrolled in South African universities.

A **research sample** is a portion of the research population or a relatively small group drawn from the research population of a study. If, for example, the population of a study is all students in South African universities, then the sample of the study would be students from a couple of universities in South Africa. The logic is that, in research, it is not always possible to study an entire population owing to time and resource constraints. Drawing a portion or a small group from a research population is often a viable option because the assumption is that the sample drawn from the population is representative of the population.

Sampling refers to the process of selecting individuals or units from the population that will participate in a study. The type of sampling used depends on the research method. Research samples can be objects or people, and they eventually represent the unit of analysis. The factors that a researcher should consider in selecting a sample for a study are presented in figure 4.1.



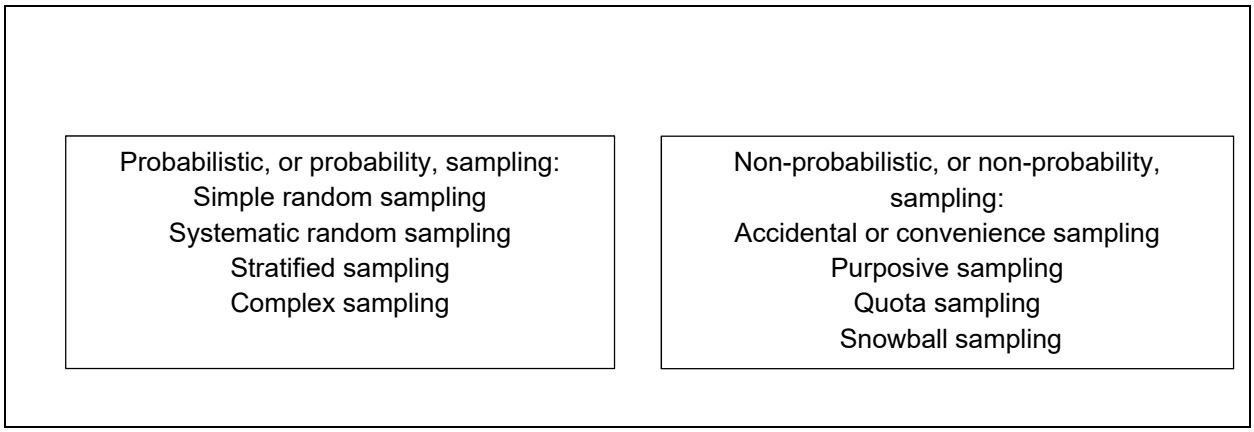


Figure 4.1: Factors to consider when selecting a sample (adapted from Martínez-Mesa et al., 2016 – Sampling: how to select participants in my research study? - PMC (nih.gov))

4.3.5 Selecting a method of data collection

A **data collection method** is an organised technique for engaging in research through the orderly collection of information to answer the research question. Data gathering should lead to an improved understanding of the topic under investigation. When research is conducted in an African setting, the method by which data are collected should promote the researcher's relationship with the relevant community. It should facilitate human interaction, which is needed to elicit the information necessary for answering the research question. The interaction that occurs with the participants will foster a feeling of belonging and involvement because they are given the opportunity to contribute to solving their problem. The importance of promoting the relationship between the researcher and the community is to form a well-established relationship with the participants with a view to creating the trust required for the participants to open up to the researcher. When the participants allow the researcher into their social world, the researcher will gain a useful understanding of the problem being studied.

There are different methods of data collection. The most popular methods include survey research and semi-structured interviews. These two methods are discussed below.

- ***Survey research***

Survey research is a quantitative method by which a researcher poses a set of prearranged questions to the participants/respondents sampled for a study. Survey research can range from short paper-and-pencil feedback to an online survey in which participants are required to complete a questionnaire. Creswell (2012, p. 21) notes that

survey research relates to “procedures in quantitative research in which you administer a survey or questionnaire to a small group of people (called the sample) to identify trends in attitudes, opinions, behaviours, or characteristics of a large group of people (called the population)”. This implies that a survey involves “the collection of information from a sample of individuals through their responses to questions” (Check & Schutt, 2012, p. 160). Useful data can be collected through a questionnaire (Mouncey, 2013). A questionnaire is a series of questions designed in written form to obtain information from the sampled respondents in a study. A questionnaire is the most popular means of collecting survey data.

Survey research is deemed the ideal model for gathering innovative information on problems related to communities. Survey research is also valuable when the research objectives are to define or clarify the characteristics of a group or large groups. This method is also used to obtain information about a group to enable the researcher to prepare a questionnaire for in-depth interviews or field research. Survey research is better suited to finding answers to some kinds of questions than others.

- ***Interviews***

If interviews will be held with the participants of a study to generate data on the research problem or topic, the researcher must design interview questions, that is to say, a questionnaire. Interviews should be guided by a clear set of questions to ensure that reliable qualitative data are obtained. A questionnaire may contain structured or unstructured questions. Structured questionnaires have different answers to select from, whereas unstructured questionnaires do not and the participants answer the questions in their own way. Most interviews involve the use of questionnaires. Punch (2013) maintains that interviewing in qualitative research is a good way of accessing people’s meanings, definitions of situations, perceptions, and constructions of reality. People use different names for semi-structured interviews. For example, some writers refer to semi-structured interviews as unstructured, in-depth or open-ended survey interviews (Ritchie et al., 2013). In semi-structured interviews, the participants answer several open-ended questions based on the topic of interest. Open-ended questions do not coincide with a predetermined set of answer options; they allow participants to provide comprehensive responses by telling their stories in their own words and to construct their own meaning (Masetshaba, 2016). Open-ended questions enable a dialogue between the researcher and the participants and provide an opportunity for the researcher to probe and delve deeper into the topic under discussion to establish meaning (Chikoka, 2015).

4.3.6 Doing a data analysis

A **data analysis** is a process that involves systematically applying statistical and/or logical techniques to describe, illustrate, condense, recap and evaluate data. This process involves making meaning out of the information collected from the participants in a study. For purposes of performing a data analysis, a researcher has to

- assess the quality of every unit of information that has been collected
- identify the software program to be used in analysing the data
- differentiate the study questions/objectives
- analyse the data in an organised format by generating theme structures
- conduct a trial analysis after information has been collected from a lesser sample to prevent disparity

So, in short, a data analysis involves processing and exploring all the information gathered in a research study and using it to find patterns and other insights that would help the researcher to solve a particular problem.

4.3.7 Interpreting and discussing the findings of the research

This step of performing research involves interpreting (or making sense of) the findings of the study and elaborating on them. The findings of the study have to be discussed in line with the research question and objective. Further, new information that emerged from the research should be compared with previous findings – this will enable the researcher to identify the contribution of the study and to make recommendations in respect of future studies.

4.4 Components of scientific thinking

Scientific thinking refers to

- thinking about the content of science
- the reasoning processes that permeate the field of science, namely, induction, deduction, experimental design, causal reasoning, concept formation, hypothesis testing and so on (Dunbar & Khlar, 2012)

Scientific thinking is based on the following components:

4.4.1 Ontology

The term “ontology” refers to a system of knowledge that focuses on what it means to exist or how people understand the way in which they exist/live in the world (Chilisa,

2012). In simple terms, an ontology is a system of beliefs that is associated with what people regard as reality. Different people have different perceptions of the world and different ways of making sense of the world. People's understanding of the world are what paradigms or theories of research are built on. Research processes are based on understanding a world view or a way of existing in the world (Chilisa, 2012). An ontology, therefore, relates to the nature of reality and the way in which people understand reality. An example of an ontological question is as follows: What is religion? One may get a variety of responses to this question based on varying experiences about how religion is perceived by different people.

4.4.2 Epistemology

Epistemology refers to how we come to know about the source or the nature of knowledge and what is considered the truth or credible. In simple terms, epistemology is the theory of knowledge and it deals with how knowledge is gathered and from what sources. It further interrogates the sources of knowledge, whether these sources are reliable, how we know and whether what we know is the truth. An understanding of how people know is based on one's ontology. Moreover, knowledge is geographically bound, meaning that every context or region (such as a country) has its own knowledge. This means that knowledge is not universal as such in research. Every method, paradigm and theory has its own epistemological roots. Knowledge is something that all people can create or construct through their interactions with other people and with the world and its components (Chilisa, 2012). An example of an epistemological question is as follows: How do you know that there is life after death? This question enquires about the criteria that are used to know whether or not there is life after death. Epistemology, therefore, is about how we know things and the criteria (i.e., methodologies) we use to attain that knowledge.

4.4.3 Axiology

The term "axiology" refers to the analysis of values to understand their meaning, their features, their purpose, their acceptance as factual or accurate knowledge and the way in which they influence one's experience. Simply stated, it is the study of the nature of values, the types of values and the criteria applied to values and value judgements, especially in ethics. It incorporates or deals with the nature of ethics, aesthetics, religion and spirituality in the construction of knowledge (Chilisa, 2012). The study of values involves understanding epistemic values of truth, rationality and justification. As such, it is concerned with matters of integrity and humanity in research activities.

4.4.4 Methodology

Research methodology is the systematic process that is followed to conduct research, that is, the way in which things ought to be done in research. It consists of approaches, processes, rules and guidelines that are used in research (Porsanger, 2004). It includes the use of different types of research methods. Quantitative and qualitative methods are referred to as the traditional methods used in research. Mixed methods research and participatory research often draw on these two traditional methods. These aspects are further discussed in section 4.7 below in relation to knowledge construction in African contexts.

4.5 Conducting research in African settings using indigenous guidelines

Conducting research in African settings using indigenous guidelines is vital for promoting and advancing indigenous epistemology (ways of knowing or how people come to know the things they know), ontology (how people engage with the world, for example, 'being') and axiology (how people value what is right, and specific types of values). Conducting research using indigenous guidelines will revisit the rational and emotional world of indigenous people. The aim is to awaken the undermined contributions of indigenous knowledge to education and psychology, as well as for Africans to reclaim their intellectual property in theory and practices. Researching African settings raises historical and present issues, such as abuse, unfair investigation practices, the looting of cultural knowledge, artefacts, the anthropological recasting of histories, cultural practices, understandings of self, community and sovereignty through outsiders' eyes, and the placement of study and knowledge outside the community such that community members become objects to be studied and the knowledge produced fails to reflect indigenous values (Battiste & Henderson, 2002; Smith, 2012). Such issues of the past and present can damage the psychology of the participants because it can replay the picture of the exclusion and misrepresentation of Africans.

Without guidelines, research characterised by negative experiences can affect the lives of the people being researched. Hence, exploring African settings through indigenous approaches becomes a yardstick for guiding research methods to reduce the exposure of research participants to methodological pressure, dehumanisation and mental suppression (Lapan et al., 2012). Therefore, it is vital to research African settings to decolonise the research paradigm, epistemology, ontology and axiology and to increase cooperation and reciprocity. The use of indigenous guidelines will highlight the problems of each tribe/ethnic group or community in a specific setting, thereby resulting in the design of interventions appropriate for transforming the situation and ameliorating the challenges experienced in that setting. Indigenous research guidelines are rooted in the recognition of basic human, community and civil rights. Human and community rights

recognise that indigenous African people think and act in ways that correspond to their world views and understandings.

The following section sets out guidelines to consider when conducting research in indigenous African settings.

4.5.1 Sensitivity towards the research participants and context

Conducting research in African settings requires researchers to be sensitive towards the participants. Researchers must also be mindful of the participants' culture and understand the indigenous practices of the local context. This will enable the researchers to be sensitive and to refrain from passing judgement and violating or offending the participants through unacceptable conduct. Sensitivity entails that researchers are mindful of their attitude, have insight into how the research should be caried out using appropriate and acceptable methodologies and mind their conduct throughout the research process. All research methods tend to affect the participants, depending on the degree of risk involved, such as high, middle or low risk. Good research conduct produces good findings while also protecting the participants' mental, psychological and physical health. Good research conduct entails minimising intrusiveness in order to protect participants against any form of harm. Intrusiveness is defined as behaviour, an action or a disposition towards being intrusive and interrupting or disturbing others. Intrusiveness is an unacceptable act in some cultures. A very intrusive person can be seen as rude and disrespectful. In this regard, conducting research in African settings entails making decisions on various strategies to emphasise sensitivity and a lack of intrusiveness by using the cultural beliefs of the research context as a point of reference.

4.5.2 Collaborative approach

For researchers to conduct research in African settings, they must have knowledge of the context in which the research is to be carried out. Therefore, a concerted effort between researchers and communities should be realised through a collaborative approach. This means that a researcher should constantly have meetings with cultural consultants and community leaders to negotiate acceptable and anticipated practices during the research, and to discuss progress. These negotiations will help the researcher to establish a good rapport with the community, to be sensitive towards the community's cultural practices and, most importantly, to have a good working relationship with the community in order to realise the goals of the research.

4.5.3 Integrity and values

Integrity and values are essential indigenous guidelines for research. Integrity and values advance openness in disclosing the details of a research study, such as the research objectives, the research approach and the potential benefits of the research to the researcher, institutions and the community. Integrity and values are vital in research in African settings because indigenous settings are about relationship building and accountability. Relationship building is characterised by honesty, openness and trust; accountability is about taking responsibility for both successes and mistakes and then focusing on how to redeem the mistakes. Integrity relates to truthfulness and unbending loyalty to strong ethical principles and values in a community and a researcher's institution. Integrity enables a researcher to act according to the values, the principles and the ideologies of the research setting.

In many African communities, cultural rituals, practices and beliefs, whether they relate to artefacts, knowledge or people, are of absolute importance because they are part of the communities' existence, experiences and memories. Researching these settings entails reproducing and supporting best practices instead of undermining them or replacing them with Western practices based on Western values. Respect for elders or traditional leaders who are the custodians of law and order is a cultural value. Mutuality, honesty, compassion and cooperation are also cultural values. Conducting research in an indigenous setting demands that the researcher pay homage to the leaders of the community, who comprise traditional, women and youth leaders, to gain easy access to the community and research participants. Insensitivity and intrusiveness in the researcher's behaviour could jeopardise the reliability of the research findings because these leaders are respected within their community. Therefore, the researcher must take the significant orders (important people) in the community and their cultural values into account.

4.5.4 Respect for sacred land and ancestral position

African communities have sacred land reserved for ancestral worship or other spiritual activities. Access to sacred land is granted to selected members of the spiritual class. Engaging the keepers of sacred places in research is often a challenge, especially for modern Africans who see indigenous practices as fetishes and who disregard and disrespect rules and regulations. Another challenge is the growing assumption among modern Africans that showing reverence to ancestors amounts to worshipping the dead. Often, this challenge is the result of an inability to differentiate between reverence and worship. In the case of reverence, Africans display deep admiration and respect to their ancestors because the ancestors are their closest connection to the spiritual realm, which is governed by divine beings. In the case of worship, Africans display reverence to a divine being or supernatural power. Researchers need to understand the rules about

sacred places and other spiritual rules and respect cultural views on ancestors in the research setting, even if they have different views or convictions. Moreover, researchers should be aware of forbidden objects, such as cameras, recording equipment and shoes, if they are granted permission to enter sacred places.

4.5.5 Informed consent

Researchers have to obtain informed consent in the form of signed agreements from research participants. Researchers must draw up a consent letter, which must be approved by the ethical committee of their institution. Informed consent implies that prospective research participants have knowledge of the research, the aims of the research, the level of risk associated with the research and the role they will play as participants before they sign the agreement. Informed consent promotes principles of openness, honesty and trust. Researchers have to obtain permission from communities' governing councils at the local government level and the state level to ensure the maximum protection of research participants against exploitation and abuse.

4.6 Types of research designs and their suitability in an African setting

There are different types of research designs that are suitable for solving problems in an African setting. This section describes two research designs that promote and advance an indigenous paradigm, epistemology, ontology and axiology. Note, however, that the research approach that is adopted will determine the type of research design that is applied.

4.6.1 The storytelling research design

This is a narrative research design in which the researcher uses a story (or stories) in the collection of qualitative data. In a narrative research design, there is a storyteller and an individual (the researcher) or a group of individuals (the audience, including the researcher) who listen and help with the identification of important events that may enable a proper understanding of the influence of the problem featured in the story. A storytelling research design is a theoretical structure that guides the process of collecting and analysing data about activities that are important to the storyteller and the audience. This research design can be used in any environment that the storyteller deems natural and where there are limited distractions. Storytelling can be adapted to any setting. Figure 4.2 presents the suggested process for a storytelling research design.

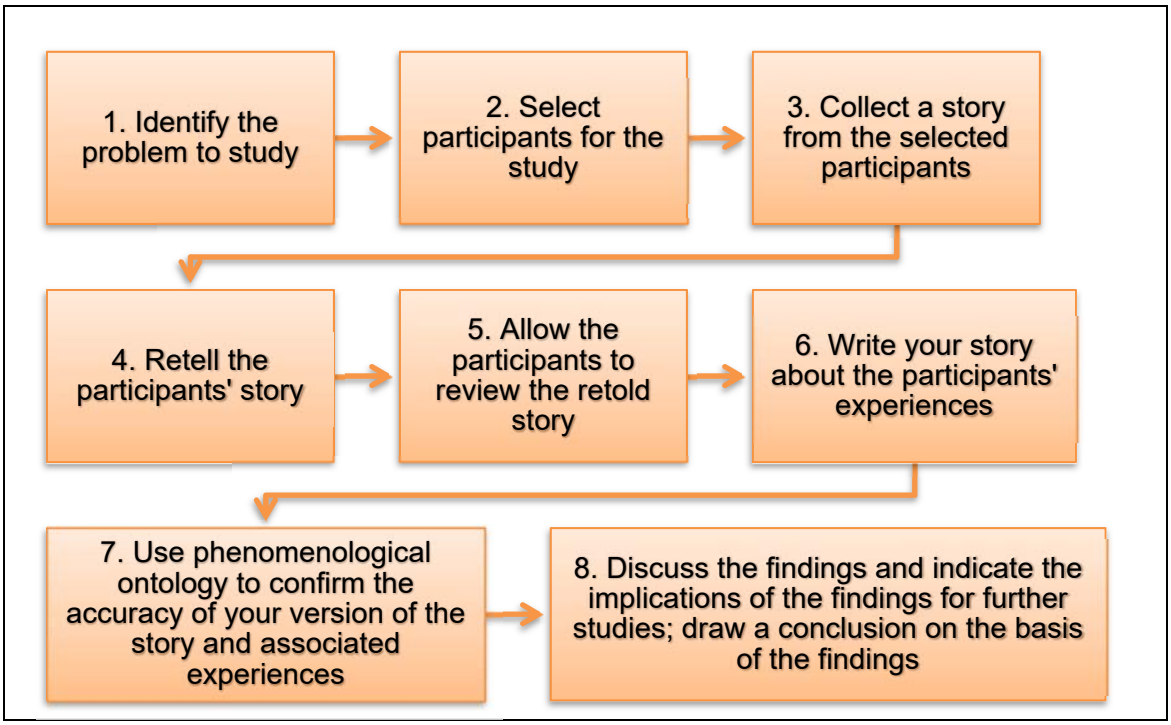


Figure 4.2: A storytelling research design

The rationale for using a storytelling design is as follows: First, data can be collected from an individual or a group of individuals, depending on the objective of the study, which helps the researcher to understand the link between the story and the context. Second, a storytelling research design helps the people involved to build a relationship and it reduces loneliness because it helps people to connect, communicate and interact within their setting.

4.6.2 Problematisation research design

Problematisation is a philosophical inquiry characterised by reflection on an existing problem and the use of the new in-depth understanding obtained through such reflection to guide thoughts, behaviour and practical actions (Berlina, 2017). In research, to 'problematise' is to go to the roots of an idea or a concept and to question its basic tenets. It is an opportunity to revisit an idea or an issue (the historical roots of an idea or an issue and its epistemological significance), such that it offers new observations and perspectives that could challenge the current view. Problematisation as a research design involves collecting and analysing data to identify and advance norms underlying an indigenous paradigm, epistemology, ontology and axiology.

Problematisation can be used in any study where the emphasis is on an African setting since it challenges paradigms, ways of knowing, realities and values in order to build an

engaging and meaningful model. This implies that problematisation as a research design for knowledge production contributes to new ways of seeing and understanding African experiences in their context. This is because problematisation provokes reflection and continuous questioning of existing assumptions, beliefs and values, thereby contributing to ideological identification and clarification. Introducing philosophical questions during the collection and analysis of data ensures the logical interpretation of normal language, views and the phenomenological information obtained. Problematisation as a research design ensures that research methods efficiently deal with the problems they were designed to deal with by reducing ideological errors or ideas that may thwart reliable research findings.

Problematisation is rooted in an African setting. For example, Freire (1974) used it for the Freirean method of problem analysis and critical enquiry, which allows the development of new ideas and awareness, reflection and action to deal with problems. According to Freire (1974), “one can know only to the extent that one ‘problematises’ the natural, cultural and historical realities in which an [individual] is immersed”. Problematisation ensures limited bias in the analysis of problems and clarifies philosophical issues such as personal ideologies that are likely to thwart genuine solutions to a problem.

4.7 Knowledge construction in African settings

African scholars are determined to develop, protect and preserve traditional habits, motives, ideas and values of indigenous African people (Biesheuvel, 1958, p. 161). Protecting or preserving traditional values means using an indigenous paradigm in research because it reflects African beliefs. Indigenous paradigms focus on beliefs that can guide research actions and steps towards understanding the world and gaining new knowledge to meet the needs of Africans. Indigenous paradigms can help researchers to understand the conditions that demand attention and the beliefs motivating the way in which Africans respond to problems. Indigenous paradigms connect African realities, epistemology (ways of knowing) and axiology (ethics) in research.

There is a belief that collaboration in knowledge construction builds human relationships. In research, relationships between the researcher and the other people involved should be pleasant to increase honesty in participation and the construction of knowledge (Wilson, 2001). Indigenous paradigms are linked to the four components of scientific thinking below.

4.7.1 Epistemology and knowledge construction

Epistemology is the philosophical study of the processes involved in gaining knowledge. Epistemology provides answers to questions that aid in knowledge construction. Epistemology deals with questions such as “how do we know?” or “how can we know that what we know is true?” (Igbafe, 2009). Epistemology is also about the way in which human minds are connected to reality, and how these realities are acceptable or unacceptable (Landauer & Rowlands, 2001; Omatseye, 2000). Epistemology is a psychological grip on the truth of reality and consciousness of the uniqueness of aspects of reality. Epistemology reveals the philosophies, the views, the values and the theories of old and contemporary knowledge (Moronkola et al., 2000).

Epistemological values, ideas and theories are diverse areas of study that are aspects of a larger body of epistemological work (Schraw et al., 2002; Hofer, 2004). Epistemology is, therefore, at the core of research methods and is vital to an understanding of knowledge construction guided by a set of theoretical plans that is belief driven. This set of theoretical frameworks represents indigenous people’s conceptions about life, which are characterised by proverbs, words of wisdom, pictures and symbols. Research shows that the epistemological views of a group of Africans have an important influence on cognitive, affective and behavioural ways of solving a problem.

Indigenous African epistemology refers to the different ways in which African people construct and produce knowledge, that is, Africans’ ways of knowing, how they know that what they claim to know is true and ways in which they test knowledge to confirm realities, morality and the ethical nature of truth. Knowledge production in an African setting is based on a unity of purpose between the spiritual and the physical – ideas are conceived spiritually and handed over to humans for application. This perception of knowledge production is enshrined in the belief that ancestors are the greatest knowers and teach people through many channels. Therefore, in indigenous African societies, knowledge is produced divinely or in the spiritual realm before human beings are taught. The different types of indigenous epistemology are as follows:

- *Dreams.* Dream analysis is a core area of knowledge construction. Dreams are said to be powerful means of communication between human beings and spiritual beings as the ultimate knowers. Supernatural powers use dreams to educate and share information with the dreamer to enable the construction of knowledge. In dreams, objects or humans are used to enable the dreamer to construct knowledge. Often, the dreamer is forced into a conversation in a dream. A spiritual being engages the dreamer in a dialogic conversation by introducing a topic or by asking a question to provoke an awareness of a situation.

- *Consultation with ancestors.* Ancestors are relatives who have passed on and who experienced love and pain before they left the physical world. Africans believe that ancestors' spirits are more powerful than their physical bodies, so ancestors are reverenced in devotions, intercession, art, music and rituals. Owing to the belief that ancestors are powerful, the living seek their guidance and protection through consultation. Consulting ancestors or spirit beings is a way of knowing in an African setting. This is because the aim of such consultation is mainly to diagnose, to identify, to understand and, in some cases, to prevent a problem.

  The mode of consultation with ancestors differs in various African settings. In some communities, such consultation is carried out by the person chosen by the gods, such as the sangoma, the native doctor or the chief priest. The consultation process includes the use of objects, such as cowries, kola nuts, shells and sticks. Each of these objects carries a message, and the message can only be understood by the person who consults the ancestors. The objects serve to connect the individual consulting the ancestors to his or her roots to diagnose a problem and to identify a solution. This way of knowing has been challenged and labelled a fetish by modern civilisation and religion.

- *Communal knowledge.* Communal knowledge refers to knowledge produced by members of a community. Knowledge constructed by a community is highly valued because it is based on the ideological principles of that community. Communal knowledge is produced out of a binding force, the ethos of a community and a belief in oneness, not individuality (i.e., the concept "we" instead of "I"). Knowledge is produced out of a love for collective responsibility, cooperation and conformity to the social, spiritual and physical order of the community. Communal knowledge production is characterised by an emphasis on community and human development. Researchers who seek to understand how communities construct knowledge should consider conducting participatory research.

- *Participatory research.* Participatory research is a form of collective knowledge construction that helps communities to produce knowledge with the aid of local resources and to build their skills to solve problems. Participatory research helps communities identify traditional ways of producing resources and developing new skills. Such research could expand the scope of community resource production and employment. A participatory research design is located within the framework of togetherness, a component of epistemology that is highly valued in African settings. Indigenous epistemology is relevant to research in African settings in the following ways:

- It helps to reduce scientific racism by correcting the misrepresentation of indigenous African practices through the dissemination of research findings and an increased awareness of research findings.
- It helps to break the domination of the Western paradigm, epistemology, ontology, axiology and research methodologies in the teaching and practice of psychology in African settings.
- It links observations and assumptions or objectives of research to ensure they correspond with the realities and the experiences being studied. For example, the concept of ubuntu could be used to explore the degree of love, peace and unity within a community with the intention to reduce conflict.
- It aids the continuous reconstruction and classification of information until knowledge that has the capacity to deal with a problem being studied is produced.
- It helps researchers to understand that knowledge construction in an African setting is aimed at the attainment of a specific goal using the realities of the applicable cultural heritage.
- It assists a researcher in making fundamental decisions, such as (a) selecting a research design based on its appropriateness in a given African setting and (b) drawing conclusions from research results based on the beliefs held in the specific setting that justify the choice of the epistemological framework used for the study.

Task 1: Epistemology in African research

- What is epistemology in research in an African setting?
- How can a researcher ensure that epistemology is applied to a research design?

4.7.2 Ontology and knowledge construction

Ontology is concerned with the study of concepts like existence (“who am I?”), being (“why do I or we exist?”), becoming (“what changes am I going to encounter as I continue to exist?”) and reality (“what is the quality of my existence and how do I face the reality of my existence, be it positive or negative?”). Indigenous ontology promotes more than one reality because indigenous paradigms promote the idea that knowledge production is a cooperative venture. Indigenous ontology rejects the idea that an individual owns knowledge.

In this regard, ontology deals with the features of reality, that is, a group of beliefs that leads to an understanding of what a person or a group of people regard as truth. Ontology relates to a fundamental question of what indigenous communities regard as real or false

based on their collective world view of realities. In the context of conducting research in African settings, ontology draws on communities' knowledge, ways of life, common sense and experiences, which developed into a body of knowledge that is presented in oral history, proverbs and folktales. Ontology is evolving as an important means of understanding Africans' views of life challenges and how to improve situations using an indigenous understanding of reality. This is possible when researchers investigate African settings using Africans' specific, shared knowledge as a guideline for research methodologies. Phenomenological ontology, for example, relies on the approach of describing or interpreting research participants' experience to understand reality.

4.7.3 Axiology and knowledge construction

Axiology is the study of values or ethics and the way in which ethics originated in a culture. Axiology is an attempt to understand the nature of ethics and ethical decisions. In indigenous research methodologies, ethics are rooted in the recognition of basic human, community and civil rights. Axiology plays a significant role in changing reality without harming people because ethical standards protect both humans and the environment during research. Axiology recognises that indigenous peoples think and behave in ways unique to their world views and experiences.

Ethics in indigenous research methodologies are concerned with the standard of conduct, competence and behaviour expected when research is conducted in African settings. The growing debate over, and awareness of, research in African settings using indigenous guidelines have revealed ethical problems. These problems include a lack of proper ethical clearance from states, local governments and communities, leading to the exploitation of research participants and the violation of their human rights. Ethical problems also result from a lack of openness about the motives behind research. Ethical clearance is vital in establishing a relationship between researchers and research participants. Ethical clearance is a non-negotiable aspect of research to ensure that research participants' rights are not violated.

4.7.4 Methodology and knowledge construction

An indigenous research methodology is a procedure that is followed to identify and solve a problematic situation to enhance the lives of the people involved. A research methodology can be termed indigenous when it uses indigenous paradigms, world views, values, processes and settings to increase insight into the phenomenon under investigation. This suggests that an indigenous research methodology is an organised, systematic procedure that is applied to find answers to problems confronting African people in their different settings. The growing use of indigenous research methodologies

reflects an increasing focus on African settings and ways of dealing with the magnitude of problems confronting Africans, psychological practices and policymakers. There is a need to bring together approaches that promote rational and dependable decisions to facilitate the development of African people. In this vein, to find answers to the problems of Africans in their various settings, the adoption of indigenous research methodologies has become an essential approach for researchers in the field of psychology for the following reasons:

- Bringing together indigenous paradigms, ontology, epistemology and axiology to improve problem-solving and interventions in African settings.
- Emphasising the meaningful participation of study participants in research procedures and real-world applications of indigenous paradigms.
- Relating teachings and practices of African psychology to the local realities and way of life of Africans in shaping and reshaping their lives in a more indigenous manner.
- Understanding the effects of Western research methodology on psychology and seeking ways to merge best practices in both.
- Enabling practitioners of psychology to understand how Africans in their various settings identify problematic situations, identify and select interventions, implement chosen interventions and assess the outcome of interventions.

Criteria to be considered in selecting an indigenous research methodology

Certain criteria must be considered in selecting an indigenous research methodology. A research methodology must have the capacity to

- build a research relationship between the people who are the participants in the research and the researcher
- build the relationship between the researcher and the research topic
- establish the researcher's roles and obligations in the research and established relationships
- outline and determine the ethics of the relationships to increase relationship accountability
- align with the applicable indigenous paradigm, ontology, epistemology and axiology

An indigenous research methodology in psychology can involve the use of different types of approaches to test sets of beliefs about reality, the construction of knowledge, the values attached to human existence, or problems. Different methodologies promote the voices and the practices of Africans, thereby improving their ways of knowing and their reasonable involvement in research procedures (Kovach, 2009; Smith, 2001). Wilson

(2001) mentions two popular indigenous research methodologies, namely, focus group discussions and storytelling.

- ***Focus group discussions***

  A focus group discussion is when a researcher has a conversation with a selected group of people on a particular topic. This methodology is concerned with indigenous ways of knowing and highlights the importance of relationships and collaboration in knowledge construction. When a researcher chooses to use this methodology, it means that he or she has an interest in the experiences, the insights, the beliefs and the attitudes of the participants (Hayward et al., 2004). An important aspect of a focus group discussion is the existence of different experiences and beliefs about a specific problem.

  Conducting focus group research in an African setting involves the following steps:

  - Identify and define the scope of the problem to be studied.
  - Define the objectives of the research.
  - Develop a schedule and lists of questions for discussion.
  - Determine the appropriate number of participants, such as 5 to10 or 5 to15.
  - Apply for ethical clearance.
  - Identify and select participants and ensure that they have a homogenous composition in respect of education, gender and language.
  - Obtain written or oral consent from the selected participants.
  - Select a suitable venue for the focus group discussion. The venue must be accessible and spacious and should have good lighting, a good seating arrangement, recording equipment and cross-ventilation.
  - Select a facilitator and a timekeeper.
  - Record participants’ observations, body language and non-verbal cues.
  - Open the discussion, listen and record your observations.
  - Transcribe the discussion, interpret the participants’ observations, code the key reoccurring ideas and create themes out of the codes (analysis).
  - Discuss the findings and write a report.

- ***Storytelling***

African ancestors used storytelling as an educational and research tool to ensure development and growth in their families and communities. Traditionally, storytelling was a means of developing and strengthening people's sense of reasoning, emotions and behaviour through the transfer of generational experience built on past events. An elder

would gather a group of people without regard to their age and tell them stories. The essential teaching goal of storytelling was for people to understand the experiences of those who had lived before them, including their strengths and achievements and their weaknesses and failures, and to allow people to identify lessons in the stories. Storytelling as an educational process enables people to take responsibility for their actions, to not blame others and to take action to control a situation. The appropriateness of the content taught is selected by elders, who are the custodians of law and order, to facilitate learning or to identify a problem.

Storytelling as an indigenous research method deals with exploring past events to identify current problems and to decide on possible solutions. Solutions are often aimed at building, sustaining and authenticating relationships and experiences and advancing cultural world views and epistemologies. Past events include ancestral knowledge, cultural rituals and practices, beliefs, spirituality and values of African people in their daily activities in the environment. A researcher who wants to use storytelling as a methodology is presumed to be interested in understanding a specific problem through the lens of past events to close the gap between the present and the past and between theory and practice. Storytelling in research involves personal narratives. Personal narratives help in developing a relationship between the people who listen and the people who tell stories to reduce bias in the interpretation of the stories. Storytelling as an indigenous research method helps the participants and the researcher to understand the passage of time, the content and the context of difficulties and the phases of difficulties. The historical information provided through storytelling provides insight into the links between the present and the past.

Conducting storytelling research in an African setting involves the follows steps:

- Identify and establish the scope of the problem to be studied, for example, identify which aspect of beliefs, culture, difficulties experienced over time, history or values is to be investigated.
- Define the objectives of the research.
- Develop a schedule for storytelling and list your key activities as the researcher.
- Determine the appropriate number of participants for the research.
- Apply for ethical clearance.
- Identify participants and obtain written or oral (for those who are not able to write) consent from the selected participants and their communities.
- Establish a trustful relationship with the community by meeting the elders. Tell them about the aim of the research, the potential benefits of the research and the risks associated with participating in the research, if any.

- Build a collaborative and authentic storytelling relationship with the participants to promote trust and calmness.
- Educate the participants to build their capacity to tell the story. Communication skills are important in storytelling. A failure in communication will affect the quality of storytelling. Hence, the researcher should choose a location that is comfortable and less likely to produce anxiety.
- Bring a recording device – make sure to obtain the consent of the participants before you record the story.
- Bring a notepad to record your observations; link the story directly to indigenous ontology, epistemology and axiology.
- Select a story analysis method that will enable you to identify the relevance of the story to the problem that is being studied. The story analysis method must also help with the identification of recommend interventions and implementation strategies and resources.
- Write a report that includes a discussion of the findings and the conclusion reached on the basis of the findings.

4.8 Psychological knowledge and scientific racism

This section deals with how scientific racism developed and influenced the way in which Africans have been perceived and treated by the Western world. All narratives about black people were negative and sought to tarnish the African identity and to promote cultural destruction. The prominent factors of racism that framed the way in which psychological knowledge has been constructed about indigenous Africans are discussed below.

4.8.1 Identity and cultural destruction

From the 18th century, scientific racism advanced in promoting falsehoods about the black race, and this continued for over 400 years. The construction of psychological knowledge perpetuated ‘scientific’ racism – black people were described as people without identity and culture. The false narrative of the black race as people without an identity was created by Gomes Eanes de Zurara in the 14th century to justify the slave trade (Fuentes, 2018). Zurara remarked that captured Africans had lived like beasts, were without any custom of reasonable beings and were only capable of living in bestial laziness (Fuentes, 2018).

Zurara believed that slavery of the black race was the only intervention that would save their souls and improve their way of life. The assumption that the black race had no identity and culture became a powerful and deep-rooted prejudice that was used to divide,

destroy and deal with black people in every institutionalised authority, including academe and psychology as a field of study. The perception of the black race as people without identity and culture was a destructive contribution of scientific racism, which advanced theories of black identity and cultural inferiority.

Since the time of Zurara, psychological knowledge construction hinged on misguided ideas about Africans. In 1851, a noted physician, Samuel A Cartwright, reportedly asserted that black people had smaller brains and blood vessels than white people and a tendency to laziness and cruelty. Cartwright also believed that black people had to be forced to submit to and respect white people. This became the origin of the deceitful practice of what became known as scientific racism. The made-up and false theory of black inferiority was used to justify oppression and centuries of exploitation, domination and dehumanisation. Scientific racism promoted theories claiming that black people were physically and intellectually inferior to whites (Guillory, 1968).

4.8.2 Misrepresentation of the well-being of Africans

Africans were perceived as having an odd physical appearance, as being intellectually inferior and as being lacking in both moral character and physical power. The deceitful narratives of scientific racism led to hatred towards and the mistreatment of the black race. Although slave trading and colonisation ended (in some instances), scientific racism continued, and many African ways of knowing, views on reality and ways of life are still regarded as inferior. Many African scholars are advocating the inclusion of indigenous guidelines and methods in teaching, research and community outreach to revisit and revitalise African ways of life.

4.8.3 Education and scientific racism

From the period of apartheid in South Africa up to the present, psychological knowledge has been characterised by scientific racism, which is evident in the following areas:

- *Teaching.* The core of teaching is to support, mentor and encourage students in their learning. Scientific racism occurs when teachers use beliefs, thoughts and actions based on personal race to communicate or interact with students. Teachers could also perpetuate advanced scientific racism when they use teaching methods that promote the authority of science and debase indigenous methods or when they use institutional policies (directly or indirectly) to favour one race over another. Teaching in an African context means that diverse teaching methods and different types of epistemology have to be acknowledged since doing so is the basis of transformation.

- *Research.* Scientific racism has been behind the disregard for and the undermining of indigenous epistemology, ontology and axiology in research in African settings. Some supervisors may insist that students use only what they term “recognised” and “verified” knowledge. This rigidity in the use of the Western paradigm, epistemology and ontology has created problems in the practice of psychology because the Western world view does not align with the African world view.

- *Community outreach.* Scientific racism is perpetuated in community outreach initiatives when a programme or needs identification is based on Western beliefs that do not correspond with the beliefs or practices of an indigenous community. In reality, many community outreach programmes are identified and implemented using Western approaches. In many cases, people take on the roles of ‘experts’ when they interact with indigenous communities, which further perpetuates false narratives about Africans’ ways of knowing and dealing with problems. In those situations, the programmes, assistance or interventions offered represent Western beliefs and practices instead of the communities’ indigenous beliefs and practices, for example, when questionnaires instead of participatory research are used to obtain information about community needs. If a community outreach programme is not related to African ways of knowing or does not promote the beliefs, values and customs of the community, the programme can perpetuate scientific racism.

4.9 Summary

This learning unit introduced you to the different steps involved in conducting psychological research in an African setting. The unit also provided a distinction between the different research designs and their suitability in African contexts, especially with respect to collaborative research in African communities. Different types of epistemology, ontology and axiology and different methods of knowledge construction relevant to the African context were also discussed. The unit was concluded with a discussion of how psychological knowledge is constructed and has been used to perpetuate scientific racism by proponents of Western approaches.

4.10 Glossary

axiology: the study of the nature of values, the types of values and the criteria applied to values and value judgements, especially in ethics

communal knowledge: knowledge produced by the members of a community

data analysis: the process of systematically applying statistical and/or logical techniques to describe, illustrate, condense, recap and evaluate data

data collection method: an organised technique for engaging in research through the orderly collection of information to answer the research question

epistemology: the theory of knowledge; it deals with how knowledge is gathered and from what sources

ontology: a system of beliefs that is associated with what people regard as reality

paradigm: a philosophical framework that guides the methodology and the theoretical point of departure of a research study

problematisation: a philosophical inquiry that involves going to the roots of an idea or a concept and questioning its basic tenets

psychological research: the study of human behaviour that leads to a better understanding of psychological phenomena

research approach: the processes followed in collecting, transcribing and analysing data in a single study to understand a research problem and to report findings

research design: an outlined plan for the investigation of a phenomenon in a research study; it stipulates the specific aspects involved in the research process, such as data collection, data analysis and report writing

research methodology: the systematic process that is followed to conduct research, that is, the way in which things ought to be done in research

research population: the entire number of people, objects, groups or events in which a researcher is interested

research sample: a portion of, or a relatively small group drawn from, a research population

sampling: the process of selecting individuals or units from the population that will participate in a study

scientific thinking: thinking about the content of science, coupled with the reasoning processes that permeate the field of science: induction, deduction, experimental design, causal reasoning, concept formation, hypothesis testing and so on

storytelling research design: a narrative research design in which the researcher uses a story (or stories) to collect qualitative data

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