

CHAPTER THREE

EMPIRICAL RESEARCH DESIGN

3.1 INTRODUCTION

In Chapter One the problem that was the focus of the study, namely to gain a deeper understanding of the learning challenges faced by Black orphaned girl learners at Secondary School Level who head households in the Xhariep District was highlighted. Chapter Two elucidated the concepts central to the study, namely child-headed households and the learning challenges learners in these households could be faced with.

This chapter outlines the research methodology which was employed to collect data regarding the learning challenges of girl learners heading households in the Xhariep District. The following aspects are addressed in the chapter:

- The research paradigm
- Aim and objectives of the study
- Research design
- Research strategy
- Methods of data collection
- Research participants
- Trustworthiness
- Data analysis
- Ethical issues

Before I conducted my research, I had to select a suitable research paradigm that would guide the execution of the research and enable me to understand the learning challenges of female heads of households.

3.2 RESEARCH PARADIGM

It is important to take into consideration different research designs when one is to conduct a research. It is through a paradigmatic perspective that an appropriate design can be chosen (Maree & Van der Westhuizen, 2007:33). A paradigm clarifies the belief or values that guide one's research. A paradigm is defined as a framework for observation and understanding a research problem (Babbie & Mouton, 2002: 645).

Maree and Van der Westhuizen (2007:31) and Hesser-Biber and Leavy (2006:12) outline three significant lenses that can guide one's process of inquiry, namely ontological assumptions (nature of reality), epistemological assumptions (theory of knowledge) and methodological considerations (process of research). Creswell, Ivankova and Plano Clark (2007:27) further add rhetoric (language of research) and axiology (role of values) to the fundamentals of research. Maree and Van der Westhuizen (2007:32) talk of the assumption about human nature. It is believed that some researchers adopt the determinism continuum (humans respond mechanically to their environment), some adopt the voluntarism continuum (humans initiate their own actions) and some are just in-between the two extremes. All these assumptions (ontology, epistemology and methodology) are important as they form foundations for the inquiry. In the following section I briefly discuss different research paradigms and their underlying assumptions that I explored in order to select a suitable research paradigm for my study.

3.2.1 Positivism

This is often linked with quantitative approaches and researchers' knowledge claims that are based on determination, narrowing and focusing on selected variables. The positivistic perspective is also based on testing theories that are continually refined (Creswell *et al.*, 2007:22). The key assumptions and beliefs of the positivistic approach are that social

science should follow natural sciences and they emphasize that the research should be quantitative in nature (Babbie & Mouton, 2002:645). Positivists' ontological dimension sees external reality as stable and the universe as governed by laws. Lastly, positivists argue that the human nature is determined, meaning that humans respond mechanically to their environment (Maree & Van der Westhuizen, 2007:33).

3.2.2 Post-positivism

Nieuwenhuis (2007b:65) sees post-positivism as a research tradition that is between positivism and constructivism. Post-positivism believes that all knowledge is fallible, although not equally fallible. The assumption of this paradigm is that reality exists, but may not be understood, as it is multiple, subjective and constructed by individuals. Post-positivism relates with both qualitative and quantitative methods, and believes that humans respond both mechanically to and initiate their own actions in the environment (Maree & Van der Westhuizen, 2007:33).

3.2.3 Socio constructivism / Interpretivism

The socio constructivist / interpretivist ideology bases its assumptions on the interpretation of interactions and the social meanings that are assigned by people (Nielsen in Hesser-Biber & Leavy, 2006:13). The aim of interpretivistic research is to interpret and understand human behaviour more than explaining and predicting it (Babbie & Mouton, 2002:643). The socio constructivist / interpretivistic perspective is guided by multiple participant meanings (Creswell *et al.*, 2007:22). This is the paradigm that is mostly associated with qualitative research, and the belief that reality is constructed by persons themselves. According to this paradigm knowledge is more subjective and humans initiate their own actions (Maree & Van der Westhuizen, (2007:34).

3.2.4 Advocacy participatory paradigm/Critical theory

Critical theory is guided by the lived experiences and social relations of participants, as this paradigm assumes that people can design their own worlds, and aims at political emancipation (Henning *et al.*, 2005:23, 24). Critical theory promotes critical consciousness

and knowledge depends on participants themselves as collaborators (Creswell, 2003:24) with the aim of maintaining and circulating existing power relationships (Henning *et al.*, 2007:23).

3.2.5 Pragmatism

The pragmatic paradigm is often associated with mixed methods research which is problem-centred. What is important for the pragmatic researcher is the practice itself (what works) (Creswell *et al.*, 2007:23). Data is collected by using numbers and words to address the research problem (Henning *et al.*, 2005:23).

For this study, I chose the interpretivistic paradigm because, from the ontological point of view I believed in constructing multiple realities to understand the research problem. For the realities to be discovered it was important to build a relationship between myself and what is researched (Creswell *et al.*, 2007:24). Therefore in this study I interacted with different girl learners from child-headed households who each brought their own reality to the research. Interpretivists believe that reality is socially constructed and, by placing people in their social context, increases the opportunity of understanding perceptions of their own activities in their own life world (Nieuwenhuis, 2007b:59) Through the interpretivistic perspective, I was able to focus on the experiences of girl learners from child-headed households by listening to their perspectives. This perspective assisted me to gain insight in the way the participants make sense of their daily lives and the learning challenges they experience.

3.3 AIM AND OBJECTIVES OF THE RESEARCH

The central aim of this study was to gain a deeper understanding of the learning challenges experienced by the Black girl learners at Secondary School Level who head households in the Xhariep District.

The aim was operationalised through the following objectives:

- Determining the learning challenges that could be experienced in general by learners who head households, by means of literature review;
- Gauging the perceptions of Black girls at Secondary School Level who head households in the Xhariep District regarding the learning challenges they experience, by means of qualitative empirical research; and
- Formulating suggestions to support Black girl learners at Secondary School Level who head households in the Xhariep District with regard to the learning challenges that they experience.

In the following section, I elaborate on the empirical research design used. The empirical research design comprised two phases, namely a literature review and empirical research.

3.4 EMPIRICAL RESEARCH

3.4.1 Literature study

Primary and secondary literature sources played an important role in elucidating the conceptual framework of the study. The University of the Free State and the North-West University libraries, as well as public libraries were consulted to obtain the literature sources. The databases used for the literature search were EBSCOHOST, SABINET and Dialogue. The following key words and phrases were used for the literature search: *child-headed households/ families, female heads of child-headed households, orphanhood, child development, needs fulfilment, factors influencing successful learning and learning challenges*. The literature search enabled me to determine learning challenges in general that guided the setting of my interview protocol as well as the deductive analysis of the interview data.

3.4.2 Research design

A research design refers to the way in which data is gathered to answer the research question (Hesser-Biber & Leavy, 2006:18). A research design is all about making decisions

on the actions that will be taken to collect and process the data (Henning *et al.*, 2004:36). The selection of a research design depends on the aims and objectives of the study together with the nature of the phenomenon to be studied (Babbie & Mouton, 2002: xxv).

A brief discussion that distinguishes different research designs from one another will follow, to highlight the decision-making process which I followed to determine a suitable research design.

3.4.2.1 Quantitative research

When using a quantitative research design, a researcher's knowledge claim is based on positivism (Nieuwenhuis, 2007b:51). A quantitative study is usually controlled and one of the focuses is on how variables are related and to what extent they are related (Henning *et al.*, 2005:3). Maree and Pietersen (2007:145) define quantitative research as a systematic and objective process that uses numerical data to generalize findings. Creswell *et al.* (2007:255) indicate that quantitative research is interested in cause and effect, in testing theories, and its data is gathered by quantitative measures. There are two different research designs namely experimental and non-experimental, that play an important role in a quantitative research. Different data is, through nominal, ordinal, intervals and ratios, measured differently (Maree & Pietersen, 2007:148).

The quantitative design was not suitable for my study because the focus of this study was not to investigate how variables are related, but to understand a phenomenon, namely the learning challenges experienced by Black girl learners as heads of families. This research study did not depend on numerical data to generalize findings, but depended more on recorded data of interviews and on the real-life situations of the participants (Merriam, 2009:24).

3.4.2.2 Mixed method

When using this research design, the focus is centred around solving a problem and both quantitative and qualitative research approaches are used within the same study (Creswell

et al., 2007:26). As it was not my aim to solve a problem, but to understand a problem, mixed method research was not suitable.

Against the background of an interpretivistic research paradigm, qualitative research therefore appeared the most appropriate for my study.

3.4.2.3 Qualitative research

Creswell (2003:18) indicates that in a qualitative approach, the researcher makes knowledge claims that are primarily based on either a constructivist perspective or an advocacy, participatory perspective. There are different approaches that are applied in qualitative research, such as open-ended questions, interviews, observations, documents, audiovisual, text and image analysis (Creswell, 2003:17). Qualitative research aims at in-depth inquiry, and the study is conducted in a setting which is bound by the theme of inquiry (Henning *et al.*, 2005:3).

I adopted a qualitative design for this study because my aim was to seek deeper understanding of the research participants' experiences of the phenomenon in question (Henning *et al.*, 2005:18). The aim of a qualitative study is to reveal the nature of the multiple meanings or perspectives of participants to gain insight into the nature of the phenomenon (Leedy & Ormrod, 2001:147 & 148). This study followed an interactive qualitative research design, as the face-to-face technique of gathering information from participants was used (McMillan & Schumacher, 2006: 26-27). A qualitative design was suitable for studying the perceptions of Black girl learners as heads of households, as it enabled me to gain insight into the social and cultural context of the girl learners as well as their behavioural patterns (Nieuwenhuis, 2007b:51).

Creswell (2003:182-183) outlines the following characteristics of qualitative research, which supported my choice for using qualitative research in this study.

- Qualitative research is fundamentally interpretive. From the recorded data, I was able to interpret what was said for the purpose of theory formulation and verification.

- Qualitative research views social phenomena holistically; hence it is broad and panoramic. The interview questions assisted me to interact with participants about all aspects of their daily life (Leedy, Ertmer & Newby, 1997:106).
- Qualitative research uses inductive reasoning. I let the words of the participants speak for themselves without reading other meanings into it.

3.4.3 Research strategy

A research strategy is the process that will be followed when conducting the research (Babbie & Mouton, 2002:74). Babbie and Mouton (2002:74) indicate that a research strategy is a plan intended to be followed by the researcher. It can be either empirical or non-empirical. Non-empirical research focuses on philosophical analysis, conceptual analysis, theory building and literature reviews (Babbie & Mouton, 2002:74). Empirical research focuses on surveys, experiments, case studies, programme evaluation, ethnographic and phenomenological studies (Babbie & Mouton, 2002: 74).

According to Nieuwenhuis (2007c:76), qualitative research can make use of the following strategies:

- Ethnographic studies consist of qualitative research aimed at understanding different cultures and societies (Babbie & Mouton, 2002:642). The researcher establishes hidden information that can distinguish cultures. The researcher spends most of the time with the community to observe and conduct interviews (Nieuwenhuis, 2007c:76).
- Case studies are seen as enabling intensive investigation of individuals, families, communities, events, organizations and institutions. Nieuwenhuis (2007c:74) defines a case study as a systematic empirical inquiry that investigates a phenomenon in its real-life context.
- Life history research is an in-depth account of one person's life in her own words (Babbie & Mouton, 2002:283).

- Grounded theory aims at developing a theory which is grounded in a set of systematically gathered and analysed data (Nieuwenhuis, 2007c:76).
- Phenomenological studies aim at finding out the meaning of experiences that people have in their lives. Researchers use phenomenological studies to understand perspectives and views of participants' social realities (Leedy *et al.*, 1997:161). Phenomenology was suitable for this study because I was interested in the lived experiences of girl learners from child-headed households (Merriam, 2009:24).

Phenomenological interviews were therefore a primary method of data collection (Merriam, 2009:25). The experiences of different learners were bracketed, analysed and compared to identify the essence of learning challenges faced by girl learners as heads of households. The phenomenological approach also links well with the interpretivistic research paradigm which aims to interpret and understand human behaviour (*cf.*3.2.3). It is through a phenomenological approach that affective, emotional and intense human experiences can be studied and understood (Merriam, 2009:26).

3.4.4 Methods of data collection

Data collection involves setting boundaries for the study and using different instruments to collect information (Petre & Rugg, 2007:2). In a qualitative study, the researcher is the primary instrument for gathering and analysing data, and it is therefore important to avoid bias influencing the investigation (Merriam, 2009:15).

Data collection instruments in qualitative research can be unstructured or semi-structured, for example, observation studies, interviews, visual methodologies and document analysis (Creswell, 2003:185). In the context of the study, I chose to use interviews to collect data from the learner participants.

3.4.4.1 Interviews

Interviews can be conducted telephonically, in focus groups or face-to-face (Creswell, 2003:188) and can be defined as a two-way communication in which the researcher asks participants questions so as to collect the data required (Nieuwenhuis, 2007c:87).

I chose to use interviews as I believed that they would give a true account of the actual opinions and feelings experienced by the participants (Henning *et al.*, 2005:53). A person-to-person interview was specifically chosen so as to obtain firsthand information and also bearing in mind the sensitivity of the questions to be asked (Merriam, 2009: 89).

Merriam (2009:89-93) distinguishes between structured, unstructured, semi-structured and focus group interviews. In structured interviews the wording and ordering of questions are predetermined as in survey research and usually used to obtain biographic information from participants (Merriam, 2009:89). An unstructured interview is normally informal, it uses open-ended questions and is used to ask relevant questions when there is limited information available about a phenomenon (Merriam, 2009:89, 90). Semi-structured interviews are more flexibly worded and make use of both closed and open-ended questions, although specific information is desired. The main part of the interview is guided by questions which allow the participants to explain their thoughts and opinions. Semi-structured one-on-one interviews are used to gain a detailed picture of participants' beliefs or perceptions on a particular topic (Greeff, 2005:292-297). Focus group interviews concentrate on collecting data from a group of participants who have knowledge on a specific topic (Merriam, 2009:93). I did not choose focus group interviews for the study, as the issue of child-headed households could be a sensitive topic, and participants might not want to disclose to others the personal and sensitive issues related to their home circumstances.

By using semi-structured one-on-one interviews I was able to explore and understand the learning challenges faced by the Black girl learners heading households much better, as this type of interview allowed me to probe for more detail in the participants' answers and to ask clarification questions (Nieuwenhuis, 2007c:87). I acknowledge the fact that the

use of interviews has some disadvantages. According to Creswell (2003:186), the presence of the researcher may bias responses and the information is filtered because it is not the direct situation during the interview process. To counteract this, I tape-recorded all the interviews to capture the exact words of the participants in order to make accurate interpretations and to avoid my own interest and bias influencing my interpretation (Nieuwenhuis, 2007a:114).

As the semi-structured interview allows a more flexible approach to interviewing, I had to be attentive to the responses of my participants in order to determine new focus points of inquiry, and to be careful not to deviate from the focus of the inquiry (Nieuwenhuis, 2007c:87).

Setting the interview protocol

Although the interviews that were used in the context of the study were semi-structured in nature, and allowed for flexibility, I required specific data from all the participants (Merriam, 2009:89). Therefore I prepared questions to be asked in advance to guide the interview process (Merriam, 2009:102).

The design of the interview protocol was guided by the following criteria as indicated by Merriam (2009:96), who suggests the use of six types of questions in an interview protocol, namely experience and behaviour questions in relation to certain activities, opinion and value questions, feeling questions to understand emotions, knowledge questions to elicit knowledge about a situation, sensory questions to elicit more information about what was seen or heard and biographic questions. In the context of my research, I utilized the following questions:

- Experience and behaviour questions in relation to certain activities
- Opinion and value questions
- Feeling questions that focus on the emotions of the participants

- Biographic questions

I did not utilize sensory questions, as I was focused on the lived experience of the participants and their opinions and feelings about being heads of households. It was also not important to test the participants' knowledge about certain issues, therefore no knowledge questions were included in the interview protocol.

Pilot interviews with two girl learners who were not part of the actual study assisted me in practicing my interviewing skills and identifying questions that needed to be rephrased to avoid their being confusing or misunderstood, useless or to be supplemented (Merriam, 2009:95).

During the actual interviews, the use of familiar language was taken into consideration. Some participants preferred Sesotho as it was their Home Language whereas some were more comfortable to do the interview in English. During the interviews, I made use of probes to follow up on the answers of the participants.

Nieuwenhuis (2007c:89) outlines three different probing strategies as detail-oriented probes (understanding the who, where and what of participants); elaboration probes (getting the full picture of certain answers given) and clarification probes (checking the accuracy of understanding what is said). All three of these strategies were used in this particular research study.

As a novice researcher who has limited experience with conducting interviews, I acquainted myself with the skills involved in interviewing as described in the following sections.

3.4.4.2 Conducting the interview

The most important thing is to identify who will be interviewed and to recruit the participants who will take part in the interviews (Merriam, 2009:105). In the context of this study, I depended on Life Orientation teachers at the various schools who took part in the study, to identify the girl learners in their schools who were left orphaned and were acting as heads

of households. I addressed the girls at their respective schools one afternoon after school in order to explain the purpose of my research and to obtain their assent to take part in the study. Ultimately, ten of the identified girls agreed to take part in the study, after which I obtained their written consent.

Beginning the interview

Before the interview started, the participants were given a chance to write down their biographical information in order for me to obtain a picture of their home circumstances. I addressed each participant at the onset of the interview to clarify my intentions and to assure them of confidentiality by using codes for each of the participants. I also obtained their permission to come for a follow-up interview if additional data was needed, and indicated that time and place would be negotiated with them before-hand (Merriam, 2009:106).

Interviewer and participant interaction

I remained respectful, non-judgmental and non-threatening towards all the participants throughout each of the interviews in order to build positive interaction with the participants. This assisted me in obtaining the cooperation of the participants to express feelings, opinion and thoughts about the research topic freely (Merriam, 2009:107).

In order to guarantee successful interviews, I adhered to the criteria identified by Nieuwenhuis (2007c:88):

- My participants were qualified in terms of the research problem and would provide me with the information I required.
- I verified the participants' willingness to be interviewed and explained my purpose with the interviews to them. I also indicated to them that I would verify my interpretations with them before making final conclusions.

- I aimed to collect rich data, and did an interim analysis after the first two interviews to determine if I had to focus on new dimensions during the interviews in order to achieve saturation of data.
- I avoided questions that lead to “yes” and “no” answers. If participants did answer with yes or no, I made use of probing to obtain additional information.
- I avoided asking leading questions that would guide the participants to the answers that I was looking for.
- A variety of questions were included in the interview protocol (*cf.* Appendix C).
- I tried to remain a good listener who wanted to understand and not judge the participants.

The interviews for this particular study were conducted in the following manner:

- Interviews were conducted after school hours at times convenient to the learners to avoid disturbing tuition time.
- Interviews took place at different schools in the three sections of the Xhariep District namely, Rouxville, Trompsburg and Koffiefontein (*cf.* 3.4.5).
- Ten purposefully selected participants were interviewed individually for a period of 40 - 50 minutes each (*cf.* 3.4.5).
- Some participants were interviewed in their mother tongue, Sesotho, while others were interviewed in English, as they preferred this. All interviews were tape-recorded with the permission of the participants.
- Field notes were important as they assisted me during the analysis and interpretation of data. I took field notes during the interview sessions that related to the participant’s reactions and attitudes during the interviews. Immediately after each interview, I sat down and wrote down my impressions of what I heard, saw, experienced and thought

about the interview (Greeff, 2005:298). The field notes contained my emotions, preconceptions, expectations and prejudices (Greeff, 2005:299) that could be used in the development of my final interpretations.

- Interviews were transcribed and taken back to participants for verification.

Themes addressed in the interview protocol

The main issue that I wanted to tackle in the interview was to find out what learning challenges the participants experience due to their circumstances as heads of households. I had to think about broad themes to cover during the interview (Greeff, 2005:296). I decided on the following main themes that emanated from the literature review:

1. Basic needs (*cf.* 2.2; 2.5.1-2.5.4)
2. Factors impacting on school performance (*cf.* 2.6)
3. Attention (*cf.* 2.4.7, 2.6.6)
4. Perceptions about learning (*cf.* 2.6.)
5. Lack of food/Malnutrition (*cf.* 2.4.10; 2.6.11)
6. Responsibilities (*cf.* 2.4.8)
7. Academic goals (*cf.* 2.6.2, 2.6.3)
8. Social relationships (*cf.* 2.6.8)
9. Coping strategies (*cf.* 2.4.1)
10. General feelings (*cf.* 2.5.3, 2.6.7)

Not one of the themes specifically addressed learning challenges, as I wanted inductively, without pointing possible learning challenges out to the participants, deduce from their answers what the learning challenges that they experience could be. I thus refrained from

explicitly indicating issues as learning challenges, as I did not want to lead participants to answers. Instead, I wanted the general discussion of the interview to assist me in identifying the learning challenges that could be derived from the responses of the participants.

3.4.4.3 The researcher's role in qualitative research

According to Gilgun (2006:440), personal experience and assumptions are part of a researcher which cannot be set aside when conducting research. This, however, does not mean that the researcher will impose her personal experiences on participants and/or findings, but it is necessary for the researcher to state her assumptions regarding the phenomenon under investigation, as these could influence the way in which she interprets the data (Gilgun, 2006:440). Based on my knowledge about the topic child-headed households I expected the participants to indicate that they do have problems related to finances, poverty, health and stress and that they are overburdened by acting out parental roles which ultimately affect their studies and academic performance.

Creswell (2009:117) indicates that researchers should also identify their biases, values, personal background, gender, history, culture and socio-economic status that may shape their interpretations, leading to compromise during the collection of data.

Being a Black female from a middle class socio-economic background, I knew the cultural burden attached to the role of females, but had very little knowledge and experience regarding the plight of learners from child-headed households. I therefore had to be very sensitive towards the situations and experiences of the learners who took part in the study.

I am employed as a Senior Education Specialist in Life Orientation in the Xhariep district, and due to the contacts that I have with schools, I became aware of the challenges experienced by the learners who head households in the district. However, I had no personal contact with any of the research participants that could have lead to compromise in disclosing information. My position as Senior Education Specialist could have posed a threat to the learners in terms of authority, but I tried to maintain the interview sessions as

informal as possible without taking on an authoritative role. The Life Orientation teachers in the respective schools acted as gate keepers to introduce me to the participants at the research sites. Furthermore, I obtained permission to conduct research from the Department of Education, school principals and learner participants (*cf.* Appendix A, B).

3.4.5 Research participants

A non-probability sampling process is normally used in qualitative research (Nieuwenhuis, 2007c:79). Nieuwenhuis (2007c:79) indicates that purposive sampling implies that participants are selected because of some defining characteristic that makes them the holders of the data needed for the study. Through purposive sampling the researcher wants to obtain the richest possible source of information (Nieuwenhuis, 2007c:79).

I selected one of the non-probability sampling strategies for the purpose of data collection, namely criterion sampling (Nieuwenhuis, 2007c:79). Criterion sampling implies that the researcher decides to study typical characteristics of participants such as age, place of residence, gender, class or profession, and the researcher selects the participants who fit the criteria until data saturation occurs (Nieuwenhuis, 2007c:80-81). In this study, I selected participants according to the following criteria:

- Participants had to reside in the Xhariep District.
- They had to be heads of households.
- They had to be secondary school learners between 12 and 17 years of age, thus in Grades 7 to 9.
- They had to be Black South African girls.

I obtained the statistics of learners who were orphans due to the death of both parents per school during 2008 from the Free State Department of Education. I approached all the schools for which large numbers of orphans were indicated to determine whether they would be prepared to take part in the research. Not all of the schools were willing to take

part and finally, three sections of the Xhariep District were included in the research (cf. Appendix F), namely Rouxville, Trompsburg and Koffiefontein. With the assistance of Life Orientation teachers, a list of all the orphans at the secondary schools in these three sections were compiled from the list of orphans. Thereafter, only girl learners who head households were selected for the purpose of the research. Due to the sensitivity of the research topic, only willing learners were included in the sample. Ultimately the group of participants comprised ten willing girl learners from the following schools: Beang tse molemo, Boaramelo, Albertina Sisulu, Ipetleng, Reikaeletse and Samuel Johnson. According to Leedy and Ormrod (2005:139), a typical sample size for a phenomenological study is from 5 to 25 participants. The number of participants in my study ($n = 10$), thus complied with the aforementioned guideline. As I obtained data saturation (Nieuwenhuis, 2007c: 80) with the ten participants, I did not identify additional participants.

3.4.6 Trustworthiness

Qualitative researchers refer to research that is credible and trustworthy (Nieuwenhuis, 2007c:80). Babbie and Mouton (2002:276) indicate that trustworthiness of research is based upon the neutrality of its findings and decisions.

I adhered to the following criteria in order to secure the trustworthiness of my research.

3.4.6.1 Crystallization

Crystallization acknowledges that human beings are growing, therefore behaviour might also change and it also acknowledges that multiple realities are subjective and are mentally constructed by individuals (Nieuwenhuis, 2007b:65). As the aim of this study was to gain a deeper understanding of the learning challenges faced by Black girl learners at Secondary School Level who head households in the Xhariep, interviewing different participants enabled me to get a picture of the multiple realities that shaped their lives. I was also able to gain rich and different insights from various participants who described their individual perspectives that revealed the uniqueness of the learning challenges faced specifically by girl learners from child-headed households.

The influential work of Lincoln and Guba (1985:290-331) indicates that trustworthiness in qualitative research can be achieved by adhering to credibility, dependability, conformability and transferability. How I dealt with each of the aspects in my study, is explained below.

3.4.6.2 Credibility

Credibility refers to the congruency of research findings with reality (Merriam, 2009:213). I adhered to the following procedures suggested by Lincoln and Guba (1985:301-316) in order to enhance the credibility of my research.

- I remained in the field until data saturation occurred.
- I recorded the responses of my participants to ensure referential adequacy.
- I shared my understanding of the responses of the participants with a colleague outside the context of the study who had a general understanding of the nature of the study to ensure that my interpretations were reasonable.
- I made use of member checks by going back to the participants to verify my interpretations as being correct and a true account of what they said.

3.4.6.3 Dependability

It is important for the researcher to provide evidence that findings would be similar if the research was to be repeated with the same subjects in the same context (Babbie & Mouton, 2002:278). I adhered to the following process according to Lincoln and Guba (1985:316-318), to enhance the dependability of my study.

- I made use of an inquiry audit which implied that my study leader examined my interview transcripts and interview notes, as well as my interpretations for acceptability.

3.4.6.4 Confirmability

Confirmability refers to the degree to which research findings are the product of the focus of the inquiry and not the biases of the researcher (Babbie & Mouton, 2002:278). I adhered to the following processes indicated by Lincoln and Guba (1985:318-327):

- I utilized an audit trail to determine if the conclusions, interpretations and recommendations that I formulated were supported by my interview data. My study leader reviewed my raw data, my field notes, summaries, themes that were developed, as well as my conclusions to ensure that I focused on the words of the participants and not my own interpretations.

3.4.6.5 Transferability

Transferability implies the extent to which the findings can be applied in other contexts with other participants (Babbie & Mouton, 2002:277). In this study, I did not intend to generalize findings, as the research related to a specific group of participants in a particular region. I could therefore not claim that the insights that I gained, would have relevance for other contexts (Babbie & Mouton, 2002:277). However, I used purposive sampling (Babbie & Mouton, 2002:277) in order to obtain specific information related to a specific group of participants and described some background-detail (*cf.* 4.2) which might allow for some degree of transferability to other learners who head households.

3.4.7 Data analysis and interpretation

Content analysis is the most relevant technique to be used for analysing human communication and interaction (Leedy & Ormrod, 2005:142). It is a process that assists the researcher in identifying key elements in a text and can be deductive and/or inductive (Nieuwenhuis, 2007a:101). In the context of the study, I worked deductively and inductively, as explained below.

3.4.7.1 Deductive data analysis

In a deductive data analysis approach, categories of information required from the data are formulated in advance from the literature (Nieuwenhuis, 2007a:99). In my analysis, I was thus guided to look for codes (smaller pieces of data that contained a descriptive meaning) that were identified by the literature as learning challenges (*cf.* 2.6) that could be experienced by learners who head households. This approach assisted me in testing existing theory on the phenomenon (Nieuwenhuis, 2007a:107).

3.4.7.2 Inductive data analysis

I also approached the data analysis inductively in order to let the codes emerge from the data (Nieuwenhuis, 2007a:107).

All ten interviews were not held at the same time. Interview 1 was conducted and the verbatim transcript finalized and coded, after which interview 2 was conducted, the verbatim transcript finalized, coded and compared to the findings of interview 1. This was done in order to adapt the interview questions if new insights transpired from interview 2. I did not identify new insights after interview 2, and decided to keep the original interview protocol.

I adhered to the following steps and procedures for an inductive analysis of qualitative data as described by Creswell (2009:185-188) and Henning *et al.* (2004:104):

1. The verbatim transcripts were prepared in typing format.
2. I started close reading of interview 1 in detail so that I was familiar with the content and to form an initial impression.
3. An understanding of the "themes" and details in the text; was obtained and demarcated the focus. I underlined and highlighted data that answered the research question. I looked for words, phrases and sentences that said something about the phenomenon and gave the relevant data segments a code or a label (open-coding). Coding is about assigning shorthand designations (can be single word, letters, phrases or combination

of all these) to different aspects of data to make it easier to retrieve pieces of the data (Merriam, 1998:164).

4. Then I grouped similar recurring codes under a suitable name (axial code/ category). Each category was assigned an identifiable name or label (*cf.* Appendix D).
5. Steps 1-5 were repeated with interview 2 to determine if categories were similar or different to those of interview 1. This was done to refine codes and categories and adapt questions for the following interview.
6. I then conducted the remaining interviews and utilized steps 1-5 for the data analysis procedure.
7. The constant comparative method was used until data saturation was achieved.
8. During the data analysis process, I looked out for codes that one would expect to find, based on the literature review, but also considered codes that were new and not anticipated at the beginning of the study.
9. Categories across data sources were compared to identify emerging themes and sub-themes. Finally, I structured in a visual representation (Figure 4.1) to indicate the inter-relatedness of the findings.

3.4.8 Ethical issues

Leedy and Ormrod (2001:107) suggest that researchers should take the following into consideration when conducting research with humans, namely protection of harm, informed consent, right to privacy and honesty with professional colleagues. In the following sections I explain how I adhered to ethical principles.

3.4.8.1 Ethical issues in the research problem

During the identification of the research problem, it is important to identify a problem that will benefit individuals being studied (Creswell, 2009:88). The problem being studied must

be meaningful. This study is meaningful in the sense that it will highlight issues pertaining to the learning challenges that could be experienced by Black girl learners who head households. Making suggestions as to how the learning challenges could best be addressed, could benefit the effectiveness of the learning and academic performance of the learners.

3.4.8.2 Ethical issues in the purpose and questions

Researchers need to convey the purpose of the study to the participants (Creswell, 2009:88). This is done in order to ensure that participants do not get confused or misunderstand their involvement within the research. Before my study commenced, I explained the purpose of the study to all the participants and why they were selected, in order to obtain their assent to take part in the study.

3.4.8.3 Ethical issues in data collection

The participants must give their consent before any empirical study is to be undertaken. No participant may be forced to take part in the research. I developed an informed consent form for participants which they signed before they engaged in the research (Creswell, 2009:89). The consent form indicated the potential benefits of the study, the type of involvement, guaranteeing confidentiality, ensuring that participants can withdraw at any time, as well as contact details of the researcher, should questions arise (*cf.* Appendix B). Permission to continue with the research was also granted by the Gauteng Department of Education (*cf.* Appendix A). If participants felt emotional after the interview, they were supported by the Institutional (School) Based Support Team who organized debriefing sessions for them with a local Educational Psychologist.

3.4.8.4 Ethical issues in data analysis and interpretation

No names were taken and participants were identified by means of codes. Confidentiality was also guaranteed as it was indicated to the participants that only the researcher, a colleague in the field of study and the study leader would have access to the data obtained.

I also agreed to make the results of the study available to the participants once the study has been completed and examined (Creswell, 2009:91).

3.4.8.5 Ethical issues in writing and disseminating the research

I did not make use of words or language that was biased against persons due to gender, ethnic group or age difference (Creswell, 2009:92). I also avoided falsifying or inventing findings, as this is regarded as scientific misconduct (Creswell, 2009:92). My research was based on sound data and findings, obtained from the actual empirical study. All the audio-cassettes and transcripts will be kept according to the ethical policy of the North-West University for a minimum period of seven years.

3.5 CHAPTER SUMMARY

Against the background of an interpretivist research paradigm, a qualitative research design and a phenomenological research strategy, this research was executed by using semi-structured one-on-one interviews with ten purposively selected girl learners from the Xhariep District (*cf.* 3.2, 3.4). Through the use of the interviews, I collected data to better understand the learning challenges that Black girl learners at Secondary School level who head households in the Xhariep District, experience.

The next chapter presents the analysis and the interpretation of the data collected by means of the semi-structured interviews.