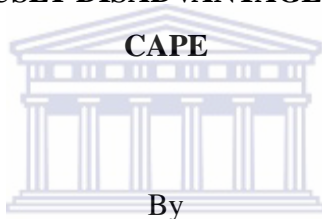**UNIVERSITY** *of the*
WESTERN CAPE

ADMINISTRATION OF THE ADJUSTED RORSCHACH COMPREHENSIVE SYSTEM TO LEARNERS IN A PREVIOUSLY DISADVANTAGED SCHOOL IN THE WESTERN CAPE

By

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ABSTRACT

The study focuses on the administration procedure of Adjusted Rorschach Comprehensive System (ARCS) to learners from a previously disadvantaged school in the Western Cape. ARCS is the Rorschach administration procedure developed by Moletsane-Kekae (2004) in her research study. The aim of the study was to determine the response rate of learners from a previously disadvantaged school when they were exposed to the Adjusted Rorschach Comprehensive System (ARCS). The objectives are to determine the possible factors that can lead to high and low response rate when administering Adjusted Rorschach Comprehensive System (ARCS). The main assumption that guides the study was that the responses of the administration of Adjusted Rorschach Comprehensive System (ARCS) to the learners from a previously disadvantaged school in the Western Cape would yield more than 14 responses (R>14). The study adopted a qualitative approach, case study design, interpretivist paradigm. The Rorschach test, ARCS procedure, observation, interview, and Field notes were used as data collection techniques. The sample was made of six learners (3 girls and 3 boys) in Year 1 selected from a previously disadvantaged school in Cape Town. In order to analyze the data, the thematic analysis and interpretation procedures were used. The results revealed that the majority of the learners gave high responses, because the ARCS accommodated their cultures, believe and backgrounds. This study found out that language, seating arrangement, strategies using during the ARCS procedure were the factors that influenced the higher response rate. Furthermore, the study also found that the lack of previous exposure and experience of the psychological test was a factor that can lead to low response.

DECLARATION OF AUTHENTICITY

I, MUKUNA KANANGA ROBERT (Student Number **3212393**) declare that this research, titled:

ADMINISTRATION OF THE ADJUSTED RORSCHACH COMPREHENSIVE SYSTEM (ARCS) TO LEARNERS IN A PREVIOUSLY DISADVANTAGED SCHOOL IN THE WESTERN CAPE is my own work in design and execution and has not been submitted for any degree at any university. I declare that all the sources that I have used or quoted have been acknowledged by means of complete references.

Signed at the ………………. Day of the year……….

ACKNOWLEDGEMENTS

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LIST OF ACRONYMS

ARCS: Adjusted Rorschach Comprehensive System

CS: Comprehensive System

DRC: Democratic Republic of Congo

IKS: Indigenous Knowledge System

IP: Indigenous Psychology

L.O: Life Orientation

RIM: Rorschach Inkblot Method

WCED: Western Cape Education Department

WSK: Western Scientific Knowledge

KEY TERMS

Rorschach Inkblot test

Response rate

Previously disadvantaged school

Psychological test

Standardization of psychological test

Learner

CHAPTER 1

GENERAL INTRODUCTION

1.0 Introduction

This chapter is the general introduction to the study. It discusses the background to the study, the problem statement, the rationale of the study, the research questions research aims and objectives. Also presented in the chapter are the assumptions of the study, the clarification of key concepts and the outline of all the chapters of the study.

1.1 Background to the Study

The field of psychological testing, established in mainstream psychology, has a strong Euro-American origin and orientation; as a result, most psychological tests are used for different purposes, including research, are culturally biased (Lonner, 1990). It is the issue of cultural bias that led to situations whereby comparable measures of the same construct cannot be obtained across cultures (De Klerk, 2008). The challenge confronting an assessor who intends to use a psychological test to measure psychological constructs is adapting and re-norming the test (Foxcroft, 2002). Czopp, Rothschild-Yakar and Appel (2012) contend that adapting and re-norming a test help to achieve equitability in terms of cross-cultural usage. However, cross-cultural use of tests can be discriminatory if the psychological construct measured varies across cultures (Van de Vijver & Rothmann, 2004). Therefore, producing a test that can be used across all cultures for making cross-cultural comparisons is an important aspect of the science of psychological assessment (Paterson, 2005; Paterson & Uys, 2005; Foxcroft, 2004).

This study is a follow-up research study of the research study conducted by Moletsane-Kekae (2004) who developed an adjusted procedure test for the administration of the Rorschach test to young South African learners in Gauteng at Pretoria. In her test, the adjustment takes into account the language in addition to some social factors that may possibly inhibit participants from giving accurate responses to the test items. Moletsane-Kekae (2004) found an increase in the response rate when Adjusted Rorschach Comprehensive System was administered to learners whom Sotho was the first language. In an article entitled *"Rethinking Rorschach interpretation,*

an exploration of resilient black South African adolescent' personal constructions", Odendaal, Brink and Theron (2011) employed Exner's Rorschach Comprehensive System as a schema-processing task to explore how Black South African adolescents' personal constructions informed their transactional resilience.

Psychological assessment is the process of gathering and integration of psychology-related data for the purpose of making a psychological evaluation (Cohen & Swerdlink, 2002). Viewed from that perceptive, the key to psychological assessment is decision-making. At this juncture, it is worth mentioning that data gathering for psychological assessments usually employs psychological tests, which are instruments for measuring or quantifying human behaviour such as their intelligence, attitudes, preferences, motivations, interests, needs, values, and personality (Hibbert, Weinberg & Klonsky, 2012; Shum, O"Gorman & Myors, 2006; Paterson & Uys, 2005; Foxcroft & Roodt, 2005; Lamiell, 2003; Mauer, 2000).

However, one of the widely used protective techniques for personality assessment is the Rorschach Comprehensive System (Gomila, 2011; Meyer & Viglione, 2008; Hartmann, Norbech & Gronnerod, 2006; Exner, 1991, 1993, 2003). The Rorschach Comprehensive System is also widely used for selection of candidates for military training (Hartmann & Gronnerod, 2009), for evaluating the introspective tendencies and capacity of individuals for collaboration and to stimulate social integration (Del-Giudice & Brabender, 2012; Del-Giugice, 2010; Hughes, Gacono & Owen, 2007), and for job selection in organisations (Del-Giugice, 2010). Fundamentally, the Rorschach test is concerned with how people perceive and think about their world, how they solve problems and make decisions, how they manage stress and how they view themselves as well as others (Weiner, 2004). In South Africa, Rorschach test is widely employed in the field of forensic and third party claims (Foxcroft & Roodt, 2005).

Several modifications have been made on the Rorschach test by several researchers, scientists, and psychologists since its first publication by Hermann Rorschach in 1921. Among them include Klopfer (1936), Beck (1950), Hertz (1944), Piotrowski (1957) and Rapaport (1956), and Exner (1978, 1991, 1993, 2001, 2003). The modifications were mainly in the United States and the focus was on achieving non-standardised administrations, making comparison between ill-

defined populations, and the use of culture-specific norms in different countries (Sciara & Rotzler, 2008; Meyer & Virglione, 2007).

1.2 Problem Statement

The development of culture-specific Rorschach Comprehensive System of psychological assessment instruments in South Africa was born out of discontent with the construction, method, procedure, and application of original Rorschach Comprehensive System (Foxcroft, Paterson Le Roux & Herbst, 2004). Aronstan (2004) and Moletsane-Kekae (2004) express discontentment about the culture-fairness and biased interpretations of Rorschach Comprehensive System; a complex culture-specific issue they believe test developers must address.

Researchers on indigenous psychology are concerned about the validity of foreign psychological test when applied in African cultures. One of the key issues about using foreign psychological tests in Africa is linguistic relativity (Ramaahlo, 2010). Ramaahlo (2010) contends that linguistic relativity is a function of the extent to which respondents understand the assessment items. Aronstan (2004) voices some concern about the culture-fairness and bias of Rorschach test, particularly in terms of normative data and the qualitative interpretation of the data. More specifically, Moletsane-Kekae, (2004) argues that psychological test developers in South Africa are confronted with a problem of language as there are different language groups in South Africa (Zulu, IsiXhosa, Northern Sotho, Southern Sotho, Tswana, Venda, Tsonga and Swazi). Each language group also tends to represent different ethnic and cultural backgrounds. Therefore, merely translating the same test content into various languages does not completely solve the problem of cultural fairness and accuracy (Mashuan, 2012; Moletsane-Kekae, 2004). Moletsane-Kekae adjusted Rorschach Comprehensive System administration procedure after Rorschach Comprehensive System was administered in Sotho language by Moletsane-Kekae (2004). The present study investigates how the learners from a previously disadvantaged school in the Western Cape respond to Adjusted Rorschach Comprehensive System in isiXhosa language as a follow-up study from Moletsane-Kekae (2004).

1.3 Rationale of the Study

During my undergraduate studies, I (researcher) realised that many tests employed in psychology originated from the developed countries; mainly the United States of America and the Great Britain. Psychologists in the African continent usually used psychological tests adapted in situational circumstances and currently having difficulty in establishing acceptable levels of reliability of these tests.

During my undergraduate study in psychology, I took some courses in psychological diagnostic, adolescence, and infancy psychopathology and I participated in a research group where the Rorschach test was administered to undergraduate students of the Department of Psychology at University of Lubumbashi in the Democratic Republic of Congo (DRC). The outcome from the administration of the Rorschach test was that most of the participants gave responses less than fourteen. Yet, according to Exner & Weiner (1995), if the participant gives less than fourteen responses (R<14), the test is automatically invalid and cannot be interpreted. Therefore, based on my experience concerning the insufficient responses given by the student-participants, I became interested in conducting a research study as a follow-up research conducted by Moletsane-Kekae (2004) which is the ARCS.

At this juncture, I wish to mention that some researchers, Moletsane-Kekae (2004) and Odendaal, Brink and Theron (2011) have employed the Rorschach Comprehensive System on Black South African adolescents. However, none of the studies involved samples from the Western Cape. In an effort to close this empirical gap, my study proposes to investigate how adolescents in a previously disadvantaged school in the Western Cape can respond to the Adjusted Rorschach Comprehensive System (ARCS).

1.4 Research Questions

Main Research question

What is the response rate of learners from a previously disadvantaged school when Adjusted Rorschach Comprehensive System (ARCS) is administered to them?

Subsidiary Research questions

1. How do learners in a previously disadvantaged school in the Western Cape react to the Adjusted Rorschach Comprehensive System (ARCS)?
2. What are the possible factors that can lead to high rate of response when administering Adjusted Rorschach Comprehensive System (ARCS)?
3. What are to possible factors that lead to the low rate of responses when administering Adjusted Rorschach Comprehensive System (ARCS)?

1.5 Aim and Objectives of the Study

The aim of this study is to determine the response rate of learners from a previously disadvantaged school when they are exposed to the Adjusted Rorschach Comprehensive System (ARCS). More specifically, the study investigates six learners from a previously disadvantaged school and speaking isiXhosa as their home language whose average age is 14. The objectives of the study are:

1. To determine the reactions of the learners to the Adjusted Rorschach Comprehensive System (ARCS) in a previously disadvantaged school in the Western Cape.
2. To identify the possible factors that can lead to high and low response rate when administering Adjusted Rorschach Comprehensive System (ARCS).

1.6 Assumption of the Study

Exner and Weiner (1995:33) state that participants are required to give at least fourteen responses when exposed to the RCS. Exner and Weiner (1995) emphasize that response less that fourteen (R<14) cannot be interpreted. In a quasi-experimental research involving ten learners' adolescents, Moletsane-Kekae (2004) notes an increase of 161 responses when the RCS was adjusted to accommodate the cultures, beliefs, and backgrounds of the participants. For my study, the participants from a previously disadvantaged school in the Western Cape are assessed by mean of ARCS. My assumption is that the response rate of the participants would be more than 14 (R>14), because as indicated in Moletsane-Kekae's (2004) study, ARCS administration takes into cognisance the background, beliefs and cultures of the participants.

1.7 Significance of the Study

The outcomes of this study provide information that enlightens the education community about the response rate of the learners from a disadvantaged school in the Western Cape, and the factors influencing their responses when exposed to Adjusted Rorschach Comprehensive System (ARCS). In addition, the outcomes of the study provide an insight on the situation in other disadvantaged communities, in other provinces in South Africa and in other developing countries; including the Democratic Republic of Congo where the researcher was trained as counsellor. The outcomes of this study also provide conceptual, theoretical and methodological frameworks that prospective researchers can employ in the administration of ARCS to learners from disadvantaged communities in contexts.

1.8 Psychological test and Rorschach test in South Africa

During the past two decades, researchers' interest on the assessment of Rorschach Comprehensive System by Dr. John Exner increased in the field of development of psychological test as well as in humanities sciences in general. The strong emergency of the development of psychological instruments in South Africa came from some dissatisfaction with the construction, the methods, the procedures and the application of Rorschach Comprehensive System to individuals.

At this juncture, I wish to mention that many researchers in the world have published journals and articles illustrating the relevance of the Rorschach findings and the contribution of its results along with its unstructured character and the legal questions relating to cross-cultural differences.

However, Rorschach Inkblot test used by South African psychologist and researchers; Aronstan (2004) points out that he is concerned about Rorschach test's culture-fairness and biasness regarding the normative data and the qualitative interpretation of the data. Clients are often rooted in strong traditional beliefs and values that need to be approached from an unbiased stance. Huysamen (1980:19; in Moletsane-Kekae, 2004) contends that in South Africa, the developer of psychological tests is faced with a problem of considerable complexity. Apart from the two former official languages, Afrikaans and English, the South African test developer has to cater for the principal different language groups that are Zulu, Xhosa, Northern Sotho, Southern Sotho, Tswana, Venda, Tsonga and Swazi (Mashuan, 2012:57). To add to this complexity, each language group also tends to represent different ethnic and cultural backgrounds, which means that merely translating the same test content into various languages does not completely solve the problem of cultural fairness and accuracy. Moletsane-Kekae (2004) developed an adjusted procedure for the administration of the Rorschach to young South African learners. In the adjustment, the researcher took into account the language and some social factors that may otherwise inhibit participants from giving sufficient responses. The findings indicate that the rate of responses of the participants increased when the Adjusted Rorschach Comprehensive System was administered. Moletsane-Kekae (2004) explored Exner's Rorschach Comprehensive System as a schema-processing task to understand how Black South African adolescents' personal constructions informed their transactional resilience. These findings offered an opportunity for rethinking how a culturally sensitive, conceptual Rorschach interpretation allowed understanding of these strategies to emerge.

1.9 Background of the adolescents

The participants' setting plays a significant role in the collection, analysis, and interpretation of data. The criterion of participants' background consists of adolescents in historical disadvantaged school. However, Nevid (2011) considers adolescence as the developmental period of transition from children to early adulthood. The adolescence stage is from approximately 10 to 12 years of age and ending at 18 to 22 years of age (McDevitt & Ormrod, 2002; Santrock, 2007). The

researcher assigned each of implications for adolescent's development of regulatory competence including physical characters, cognitive processes and psychosocial aspects of human functioning (Shirtcliff, Dahl, & Pollak, 2009). The participants in this study were 14 years of age. It is crucial to reflect on their developmental stages as they were observed during data collection.

1.9.1 Physical development of adolescents

The major feature of physical development during adolescence is puberty, the period of physical growth and sexual maturation during which young girls and boys go through to reach full sexual maturity (Seifert & Hoffnung, 2000; Nevid, 2011). Puberty begins with the appearance of physical characteristics that differentiate between males and females but not directly involved in reproduction. During this stage, girls generally experience the growth shoot early than boys, so females may be taller than their male counterparts of the same age. But boys, on the average, eventually surpass girls with rapid physical changes, dramatic gain in height and weight while the girls start menstruating. They think about sexuality and body image. Boys also develop greater upper body musculature. For boys, the commencement of puberty involves at around 11 or 12 and the first ejaculation generally appear between the ages of 12 and 14 (Nevid, 2011). Thus Charmandari, Tsigos, and Chrousos (2005) also confirmed that the activation of stress system dive to a group of time limited behavioural and physical changes. The participants in this study are expected to fit the physical development mentioned in this section.

1.9.2 Psychosocial development of adolescents

At this stage, psychosocial development of adolescent is presented by the self-esteem and greater independence (Kroger, 2003). It is the time when conflicts with parents as well as closeness and conformity or challenge with friends are likely to arise. However, Erickson's model (1980) supported the stage of psychosocial development of adolescents that occur, which is the "identity versus role diffusion". The issue of identity assumes prominence during adolescence, as young girls and boys grapple with questions such as "Who am I?", "What am I good at?" and "Where am I heading to?" During this stage, boys and girls experiment with multiples representations of adult in order to obtain a unique good role model. It is also the time of development of ethnic identity and cultural heritage (Kuhn, 2006; French, Seidman, Allen, & Aber, 2006; Nevid, 2011).

In addition**,** both girls and boys are able to form relationships. They are faced with peer group pressure. They are concerned about being rejected and they want to be accepted; hence they want to conform to a group so that they can be accepted. They need to belong and at the same time have a sense of self-worth. During this stage, adolescents display psychological needs, by complex emotions and they develop the sense of personal responsibility (Wild & Swartz, 2012). For example they have an intense mood swings. Girls express anger and depression often, whilst boys express both negative and positive emotions and they are energetic. Girls can be moody during menstruation. Since the participants of this study are 14 years old, the researcher expects them to also display these psychosocial developmental symptoms.

1.9.3 Cognitive development of adolescents

Cognitive development refers to the progressive development of thought processes, mental abilities and the capacities to obtain, process, interpret, retrieve and use information (Morris & Maisto, 2012). At this stage, adolescents develop the formal operational thinking of solving abstract problems and emerge the new capacities that allow them to engage in kind of introspection and nature of making discussion. Despite the fact that negligible significant differences established in the cognitive development of adolescent between the girls and boys, it is suggested that adolescent boys and girls differ in their confidence in certain cognitive capacities, skills and competences (Wild & Swartz, 2012). Rorschach test administration required the participants to answer the questions and to think about what the inkblot might be.

1.10 Historical background of South Africa disadvantaged schools

In 1948 when the National Party was a ruling party in South Africa, it imposed racism structures in all facets of life, especially in the Education (Christie & Collins, 1982; Fiske & Ladd, 2004; Clark & Warger, 2004; Gillomee, 2009). In 1953, the government passed to a new ideology and most offensively racist laws into the black schooling system called "The Bantu Education Act" (Act No. 47 of 1953, later renamed it the Black Education Act, 1953). Clark and Warger (2004) mention that the government funded of black schools became conditional on acceptance of a racially discriminatory curriculum administered by a new department of Bantu Education. Even this segregation, some missionary decided to close down when the government no longer support

their schools; very few authorities continued using their own finances to support education for native Africans.

Clark and Warger (2004) quotes the national Minister of Native Affairs, Hendrik Verwoerd when he reviewed the Bantu Education Act through the parliament with the objective of segregation. In his statement Verwoerd said that "There is no place for [the Bantu] in the European community above the level of certain forms of labour ... What is the use of teaching the Bantu child mathematics when it cannot use it in practice?". This speech meant that Bantu Education was an inferior education system for blacks. Its central foundation was emphasised upon a functional value of the school as an institution for the transmission and development of black cultural heritage. It brought African education under control of the government and extended apartheid to black schools.

During the period of the Bantu Education between 1954 and 1968; the introduction of black Education system led to a substantial increase of government funding to the learning institutions of black Africans, but it did not keep up with the population increase (Gillomee, 2009). The National Party had the power to employ and train teachers as they saw fit. Black teachers' salaries were extremely low and this resulted in a dramatic drop of trained teachers. School buildings reserved for Blacks, Coloureds and Indians were in poor condition and the classes were too large. Most of the schools were under staffed and there was a serious shortage of qualified teachers as only one third of the black teachers were competent (Clark & Warger, 2004; Gillomee, 2009).

The schools reserved for the country's white children were of high standards and the education was both mandatory and free. Less than half of the black schools did not have electricity, running water and less than half of these schools had plumbing. The education for Blacks, Indians and Coloureds was not free (Clark & Warger, 2004). In the 70s, the per capita governmental spending on black education was one-tenth of the spending on white (Byrnes, 1996). After the second World War Anglican and Roman catholic missionaries were voluntarily contributing to provide good education to blacks; however, this system closed when the National Party took power in 1948 (Gillomee, 2009).

In 1976, the Afrikaans Medium Decree of 1974, which forced all black schools to use both Afrikaans and English as languages of instruction beginning with the last year of primary school,

led to the Soweto Uprising in which more than 575 people died, at least 134 of them under the age of eighteen (Byrnes, 1996; Boddy-Evans, 2008).

The Act was abolished in 1979 by the Education and Training Act 1979, which continued the system of racially-segregated education. Segregation became unconstitutional after the introduction of the Interim Constitution in 1994, and most sections of the Education and Training Act were cancelled by the South African Schools Act, 1996. Even after the 1994 democratic government; some of the schools are still under-resourced and the government is expected to close the gap. The participants in this study are from such schools, which were under this administration during the apartheid era.

1.11 Overview of Research Design and Methodology

This study employs a qualitative approach and is a case study research design. McMillan (2008:271) explains that researchers using qualitative approach believe that there are multiple realities represented in participants' perspectives, and that the context is critical in providing an understanding of the phenomenon being investigated. A disadvantaged community serves as the context from which information can be gathered to understand how learners respond to the Adjusted Rorschach Comprehensive System (ARCS). Lauer (2006:16) explains that qualitative research deals mainly with narrative descriptions and observations, usually in more natural and less controlled research setting. Lauer (2006) further explains that qualitative research employs special methods such as case study or ethnography to collect data to provide in-depth descriptions of people, behaviours, and contexts. The study employs case study method. A case study, on the other hand, is an in-depth analysis of one or more events, settings, programs, social groups, communities, individuals or other grounded systems in their natural context (McMillan, 2008:288). In order to describe and understand the participants, the study employs exploratory descriptive design. The research methodology and design are fully discussed in chapter 3.

1.13 Ethical considerations

In this research, the researcher obtained permission for accessibility from the University of the Western Cape, from the Western Cape Education Department, from department of Educational Psychology and from the school where research took place. The participants were informed that the results obtained are used for research only. The researcher referred to the researcher's obligations that the participants' responses were treated confidentially.

1.14 Definition of Key Terms

In this section the researcher provides a definition of the key terms used in the study. Silverman (2011) argues that defining terms is not always as easy as there are as much definitions as there are divergent points of view. Wilkinson (1991) highlights that the words of scientists have shapely defined terms with which to think clearly about their research and communicate their findings and ideas accurately. For the purpose of the study, the following salient concepts will be explained to help us understand the research problem and the questions and assumptions of the study.

The research problem of this study is crafted around six important concepts, namely Rorschach Inkblot test, response rate, previously disadvantaged school, psychological test, standardization of psychological test and learner. These concepts are clarified below.

1.14.1 Rorschach inkblot test

The Rorschach inkblot test is a kind of psychological test developed in 1921 by Hermann Rorschach, a Swiss psychiatrist and proponent of psychoanalysis. It is also considered as a psychological projective personality test in which a subject's interpretations of ten (10) standard abstract designs are analysed as a measure of emotional and intellectual functioning and integration. The individuals are shown pictures of inkblots. The task of the test-taker is to report what she/he sees in the inkblots. The test is considered "projective" because the test taker is supposed to project his or her real personality into the inkblot via some interpretations.

1.14.2 Response Rate

It will not be easy to understand the term response without first understanding what is meant by stimulus. A stimulus may change the organism's internal state without immediately eliciting a response (Baszczyk, 2003). Pavlov (1927:1) argues that "a stimulus appears to be connected with a given response as cause with effect". For Pavlov a stimulus could be anything in the terrestrial world. Pavlov (1927) describes a stimulus as any event he could think of to use in an experiment he would call a stimulus, and he employed tones, bells, the sound of bubbling water, lights, rotating objects, pictures on a screen, acid in the mouth, food, a scratch on the back, or electric shock. The whole idea is that everything in the environment that can elicit a response is a stimulus. A stimulus elicits a response. A response therefore, refers to any behaviour emitted by a living organism due to an external or internal stimulus.

For the present study, response means verbalisations of precepts or concepts emitted due to the exposure to the Inkblot. Since response is the basic unit of Rorschach protocol, a response is an independent, discrete idea given to a clearly specified portion, or to the whole, of the Ink Blot. A person's response to a stimulus can be described qualitatively. If response is given during the performance proper, it is a main response but if it is elicited during the inquiry, it is considered as an additional response (Klopfer & Davidson, 1962).

1.14.3 Previously disadvantaged school

These are schools or categories of public schools which, prior to the new democratic dispensation marking the introduction of the new constitution of the Republic of South Africa Act of 1994, were disadvantaged by unfair discrimination on the basis of their race. This term "previously disadvantaged" principally refers to Blacks, Coloureds, and Indians public schools in South Africa prior to 1994. In the context of this study, the researcher refers exclusively to schools were learners who attend previously disadvantaged in the Western Cape Township.

1.14.4 Psychological Test

A psychological test is a measuring instrument that has three defining characteristics namely a sample of behaviour; sample obtained under standardised conditions, and established rules for scoring qualitative or for obtaining quantitative information from the behaviour sample (Murphy

& DavidShofer, 1994). A psychological test intends to measure individual differences in order to predict the behaviour of individuals in various situations. However, any psychological measure, research procedures and tools must meet two standard quality technical requirements, namely reliability and validity.

1.14.5 Standardization of psychological test

Unlike intelligence tests that provide quantitative measures of mental abilities, personality tests provide subjective reports on behaviour traits such as emotions, attitudes, interests, and values (Carter, 2007; Edenborough, 2005). According to Huysamen (1997), personality characteristics of individuals can be assessed using two techniques: objective tests and projective techniques. Objective tests contain short answer items for which the testee's task is to select one response from the two or more provided (Cohen, & Swerdlik, 2009:424). A key characteristic of objective tests is standardization that is uniform procedure in administering and scoring the test (Shaffer, Erdberg & Meyer, 2007). Projective techniques, on the other hand, attempt to understand an ambiguous or vague stimulus; their interpretation of that stimulus reflects their needs, interests, feelings, experiences, prior conditioning and thought processes (Kaplan & Saccuzzo, 2009:399).

1.14.6 Learner

Collins dictionary (2005) describes a "Learner" as a person who receives education and its synonyms includes apprentice, beginner, pupil, scholar, bookworm, and novice. Learner is defined as any individual who received education or who is obliged to receive education (South African School Act, 1996). The main entry here is a pupil, that is, a person who is learning something, follower, graduate student, scholar, learner. In this study, the terminology learner is used to denote a pupil in a previously disadvantaged school.

1.15 Overview of chapters

This study is subdivided in four chapters namely

Chapter one

This chapter presents the background aspects of the study such as background to the study; the rationale for statement of problem, the research questions, purpose, objectives, assumption, and significance of conducting the current study. It also covers the overview of chapters, the aspects of background development of the participants, and the characteristics of South African learners in the historical disadvantaged school as well as operational definition of terms.

Chapter two

This chapter explains an overview of the existing body of reviewed research including Rorschach inkblot test, Exner's comprehensive system, the Adjusted Rorschach Comprehensive System (ARCS) and test anxiety in testing situation. It also describes two theoretical frameworks that are the critical psychology and the indigenous psychology as well as literature review regarding to the topic of this research.

Chapter three

This chapter addresses the empirical research of the study. It focuses on paradigm approach and research design as well as the research methodology the researcher has used.

Chapter four

This chapter presents the qualitative analyses and interpretations of data. These analyses are presented according to themes and subthemes. In this chapter, the researcher presents the main themes, identifies the different categories and patterns of meanings. The researcher also discusses the findings of the study. The researcher demonstrates the conformability and sensibility of the data analysis from protocols of the Adjusted of the Rorschach Comprehensive System (ARCS).

Chapter five

Chapter five presents the conclusion of the study in which the researcher synthesizes the findings of the study. In addition, the researcher links the findings with the existing research review; highlight the refection on the findings, recommendations, limitations, suggestions and conclusion of the study.

CONCLUSION

In this chapter, the researcher has presented the aspects of psychological tests and Rorschach test in South Africa academic, the background development of the adolescents, and the characteristics of South Africa learners in the historical disadvantaged school. The researcher has defined the selected methodological, epistemological paradigm, research design, and research methodology. The researcher has included an overview of what will be discussed in all the five chapters. The researcher has also surveyed the ethical considerations.

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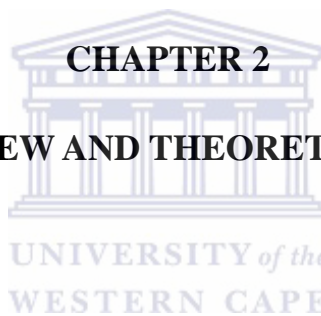
CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1: LITERATURE REVIEW

2.1.1: Introduction

Denney and Tewksbury (2012) consider literature review as a comprehensive overview of prior research regarding a specific topic. According to Andersson, Beveridge and Singh (2007), literature review may be presented as a paper on its own, or it can be contained as an integral part of an article, research proposal, research report or dissertation. The main idea of the literature review is to distinguish what has already been written before on a topic, to discover the important variables relevant to the researcher's own research (Hart, 1998:27 in Baker, 2000:221), and to show the reader what is not yet known on a topic (Crewell, 1994 in Denney & Tewksbury, 2012:2). The literature review is also aimed at the applications of theory to applications in research, as well as rationalizing the significance of the problem (Hart, 1998:27 in Baker, 2000:221). The researcher may need to identify the methodologies and research techniques used by other researchers in related studies (Hart, 1998:27 in Baker, 2000:221).

Andersson, *et al.* (2007) argue that the central issue in literature review is to integrate what the previous researchers have found and the important issues still which are unresolved. The literature review in this chapter presents different stages of Rorschach test that is Rorschach test during Hermann Rorschach, Rorschach Comprehensive System (RCS) developed by John Exner, and Adjusted Rorschach Comprehensive System (ARCS) developed by Moletsane-Kekae in 2004.

Therefore, this review of literature focuses on the historical background, nature, explanation, and administration of the Rorschach Inkblot test. Besides, the administration procedure of Rorschach Comprehensive System (RCS) developed by John Exner is reviewed in this chapter. Furthermore, the chapter presents the Adjusted Rorschach Comprehensive Systems (ARCS) that was developed by Moletsane-Kekae (2004). Finally, the chapter presents the theoretical framework by explaining the critical psychology and the indigenous psychology theories.

2.1.2 RORSCHACH INKBLOT TEST

2.1.2.1 Brief historical background

Gleason (2008) admits that it is not easy to trace the history of Rorschach test. Schwarz (1996:6) asserts that it can be possible to understand what is known about Hermann Rorschach only through his own work. Latter half of 19th and early part of 20th century, there was more interest in inkblots not as a test but as a game (Exner, 1968). However, Klopfer and Davidson (1962) maintain that the notion of using Inkblots of human function's study did not begin with Hermann Rorschach, but before him. It started during the ancient time latter half of 19th century and early part of the 20th century.

However, Leichtman (2009:24) concedes that some of researchers and scientists in the United States and Europe including Kerner (1857), Binet and Henri (1896), Krikpatrick (1900), Whippe (1910), Pyle (1915), and others were much interested in inkblots and they produced empirical studies of the development trends in children's responses to stimuli. At that period, these pioneers published articles and investigated human intelligence, and various personality traits

that Inkblot stimulus may be useful to study by using visual imagination (Kaplan & Saccuzzo, 2009:377).

Schwarz's (1996) study informs that Rorschach's father worked as a painter, and that he also taught in the Royal School. In additional, Schwarz (1996) points out that, until the late 18th century, Hermann Rorschach constructed a 32 pages family tree which was based on searches into registry office, church records and other sources. Schwarz (1996) also mentions that Hermann Rorschach found the ruin that was once the habitat of these knights and their descendants and photographed it. The photos matched the picture of ruin drawn in the family tree by Rorschach (Schwarz, 1996). Between 1911 and 1917, Hermann Rorschach demonstrated his innovative research; he published numerous articles and books reviews in the professional journal (Schwarz, 1996). In 1921, Hermann Rorschach completed his doctoral dissertation that was sponsored by Dr. Eugen Bleure, a professor of psychiatry at the medical school in Zurich (Schwarz, 1996).

After the First World War, between 1921 and 1922, Rorschach created and published an article that we now know as the Rorschach test (Schwarz, 1996; Exner, 1978, 1991, 1993, 2003). This was originally entitled *psychodiagnostik* (psychodiagnostic) (Rorschach, 1921-1922). According to Rorschach's work, psychodiagnostic was not a test, but rather *"Wahnehmungs Experiment"* (perceptual experiment). This Rorschach's experiment (1921-1922) focused on the determinants of a subject's inkblot responses and their relationship to personality. Research with inkblots mainly involves imagination and associational content. Rorschach's (1921-1922) work experimented the possibility of using inkblots to compare and understand normal, and psychological disorders people such as neurotic and psychotic individual in the cognitive, personality functioning.

Unfortunately, Rorschach's (1921-1922) Psychodiagnostic publication was unable to provide further elaboration on the nuances of this technique (Exner, 1978, 1991, 1993, 2003). Hermann Rorschach (1885-1922) died early at the age of 37 (Exner, 1978, 1991, 1993, 2003; Gleason, 2008). This monograph (*Psychodiagnostik*) was rich with concepts finding, and case examples, but many issues in which Hermann Rorschach wrote are not fully explained, and some of them either address briefly or leave important issues unresolved. For instance, researchers agree with

Schwarz (1996) that it seems that Hermann Rorschach had the intention to assess the responses, to be unique and identifiable of other cultures and races to his experiment. This perceptual experiment made a beginning to attempt to obtain protocols from Africans, American Indians, South Americans and others.

2.1.2.2 Nature and Explanation of Rorschach Inkblot test

Rorschach test, also known as the Rorschach Inkblot Method (RIM) (Weiner, 2004:343), the Rorschach technique (Exner, 1978, 1991, 1993, 2003), or simply the Inkblots Test (Klopfer & Davidson, 1962), is considered as a psychological test in which the subject's perceptions of Inkblots records are given and then analyzed using psychological interpretation, complex algorithms, or both (Murphy & Shofer, 1994). The Rorschach test has been extensively utilized in clinical consultation and treatment planning (Rorschach, 1921). [1]

The Rorschach test consists of ten (10) symmetrical Inkblots different (Austin, 2012:49), on 18 by 24 cm and 6 ¾" by 9 ¾" cards (Weiner, 2004:343). First seven cards are in shades of gray and black ink on white background (Card I and IV through VII); two in shades of red, gray and black (Cards II and III), the final the remaining three cards are shades of multicolor with ambiguous, symmetrical perceptual stimulus (Weiner, 2004:343).

2.1.2.3 Administration of Rorschach Inkblot test

During, the administration of Rorschach test, the examiner presents each card to a subject. Its procedure generally takes at least 45 minutes or an additional of 1.5 to 2 hours. Rorschach test was constructed as an individual projective test administered with minimum structure. During the administration, the examiner proceeds by showing from Card I to Card X that are presented one by one to the subject by the following question: *"What might this be"* or he/she asks to say what each blot resembles (Weiner, 2004; Austin, 2012). The subject is therefore instructed to describe what the inkblot might be. If only one response is given, the examiner might ask if the inkblot looks like anything else, often resulting in more than one response. The subject looks at the cards at a time and describes what each inkblot resembles. The following stage is an inquiry phase in which the subject is shown for the second time the card and he/she is asked to indicate

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1 Subjects, respondents, participants are used interchangeably as many authors used.

where he/she saw each of their percepts. Aronow (2001) and Lerner (1991) highlight that during the administration of the Inkblot; the subject may be required to elaborate some responses or to define which features of each inkblot provoked the responses.

The subject test scores are determined by several factors. First the location, that is, what part of the blot a person focuses on that is the whole blot (W), sections of it (D), or only specific details (Dd). Secondly, the scores are also determined by whether or not the response is based on factors such as form, colour, movement, or shading (the determinants). The subjects who tend to see movement in the Inkblot are regarded to be intellectual and introspective; whereas those subjects who see mainly stationary objects or patterns are regarded as practical and action oriented. Content refers to which objects, persons, or situations the subject sees in the blot (categories include humans, animals, clothing, and nature). These responses are usually recorded verbatim and they are later analyzed, interpreted and scored qualitatively or quantitatively by the examiner.

The main purpose of the test is to provide the data about cognition and personality characteristics of a subject such as motivation, response tendencies, cognitive operations, affectivity, and personal/interpersonal perceptions. The underlying assumption is that a subject will class external stimuli based on person-specific perceptual sets, and including needs, motives, conflicts, and that this clustering process is representative of the process used in real-life situations. Some psychologists employ the Rorschach inkblot to empirically observe a subject's personality characteristics as well as his or her emotional functioning. The test has also been used to identify basic thought disorder particularly in situations where patients are unwilling to openly describe their thinking processes.

2.1.3 EXNER' S RORSCHACH COMPREHENSIVE SYSTEM (RCS)

Exner's RCS is discussed in this section
2.1.3.1 Historical background of Exner's RCS

In the 1950s and 1960s, the Exner' s Rorschach Comprehensive System was criticized because it lacked standardized procedures and a set of norms; and this led to lack of reliability and validity

of the reported results. While many psychologists continued to use the original Rorschach's system for scoring the subjects, others developed their own interpretive systems of scoring the test (Hess, *et al*., 2001; Lilienfeld, Wood, & Garb, 2001). Exner (1974) developed the Comprehensive System, which established rules for delivering the test and for interpreting the responses, and he provided norms for both children and adults. Although The Rorschach is mentioned as simply *the Rorschach*, many different format comprehensive systems provide guidelines for test coding, and interpretation. In the face of such criticisms, most psychologists started to gradually abandon the Rorschach.

Gleason (2008) points out that it is exceptionally difficult to evaluate the Rorschach test on classical administration and propriety. Initially, Hermann Rorschach examined whether a sample of individuals with schizophrenia can be differentiated from a sample of individuals without schizophrenia by their responses to the inkblots (Exner, 1993, 2003, 2005; Kurt, 2011). Subsequent to Gleason (2008), Bruno Klopfer, Samuel Beck, Margueritr Hertz, David Rapaport, Zygmunt Piotrowski worked and created the adaptation to the application of Rorschach techniques in the monograph (Kurtz, 2011). Each of these Rorschach experts' influences on the development of the Rorschach test created a distinct method of administration, coding, and interpretation (Exner, 1993, 2003, 2005; Kurt, 2011).

In order to maintain a standardized administration, score and interpretation procedure, Exner and his colleagues (Klopfer, Beck, Hertz, Rapaport, etc.) developed and published the first comparison of these five systems intitled *"The Rorschach System"* (Exner, 1974, 1978; Exner, 1993, 2003, 2005). Exner's system was viewed as a rigorous system of analysis, scientifically valid, clinically useful and reliable method of using the Rorschach Inkblot Test. Exner's scoring system, referred to as the Rorschach Comprehensive Systems (RCS) is the standard method for interpreting the Rorschach test. It extensively validates and shows a high level of standardization and inter-rater reliability (Cliton & Jennkins-Mouroe, 1994). In 1969, Exner published *"The Exner System" followed by thee* Rorschach: A Comprehensive System (Exner, 1993, 2003, 2005). Researchers such as Kurt (2011) and Campos (2011) describe Exner's system as a more comprehensive test in terms of consistency of data collected with it.

2.1.3.2 Exner: RCS's administration procedure

Exner's (1993:48-69) administration procedure are constituted on seven phases namely seating phase, instructions, response phase, problem of brief protocols, problem of lengthy records, recording the responses, and inquiry phase.

a) Seating phase

The seating is made side by side, never face to face. This preference can be done on a table or using two comfortable chairs with a small table between the examiner and the subject. This is important because it reduces the effect of inadvertent and unwanted cues from the examiner and it affords the examiner a much better view from which to see the features of the blot as they are referred to by subject (Exner, 1993:65).

b) Instructions phase

In this phase, the examiner hands to the subject the first card and he/she asks the initial instruction: *"What might that be?"* This instruction is important because it encourages the subject to hold the blot in his or her hand.

c) Responses (association) phase

During this phase, the subject gives responses to inkblots that is referred to the free association phase (Exner, 1993: 68-69). The examiner records all the verbatim provided by the subject. During this phase, the examiner avoids injecting any set, bias or direction into the situation except in those few instances when encouragement is required.

d) Problem of brief protocols

According to Exner (1993: 33), brief records concerns that contained less than fourteen responses and are not valid and reliable. In additional, the brief records occur more often than be expected (Exner, 1993:70).
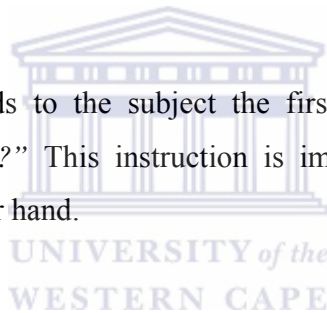
e) Problem of length records

As noted by Exner (1993:55), some of the subjects become involved in the task; this can lead to the common problems in Rorschach administration to the excessive short record. The comprehensive system developed by John Ener does not allow shorter responses and lengthy records. A lengthy record is referred from 45 to 85 responses (Exner, 1993).

f) Recording the responses

In this phase, all responses must be recorded verbatim (Exner, 1993:72). This allows the examiner to read for making a decision on coding or scoring the responses. The verbatim also helps to create permanent records of test for others researchers to know exactly what the subject said.

g) Inquiry phase

This phase is clarified by these questions namely what, where, how which will be answered. The purpose is to clarify the answers given during the response phase. After the inquiry, Exner's procedure proposes the coding of responses because it involves the allocation of symbols and the responses translation into symbols.
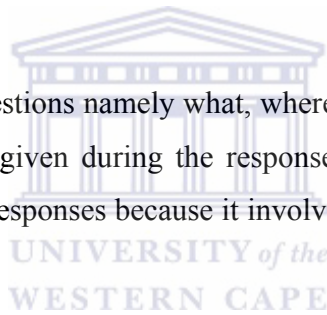
2.1.4 ADJUSTMENT OF THE RORSCHACH COMPREHENSIVE SYSTEM (ARCS)

This section presents the development of ARCS

2.1.4.1 Development of ARCS

Although western and non-western psychologists welcome the Inkblot as one of the remarkable advances in the field of psychology, most non-western scholars criticise the administration procedure for failing to take the beliefs, needs and cultures on non-western subjects into consideration. Accordingly, Moletsane-Keake (2004) made some adjustment to the original Rorschach administration procedure to suit the needs, beliefs, and cultures of South African participants.

Moletsane-Kekae (2004) provides five main phases in the administration of ARCS, which include the presentation phase, the re-emphasis phase, the presentation-response phase, the inquiry phase, and the re-inquiry phase.

a) Presentation phase (P-Phase)

In this phase, the researcher introduces himself / herself and explains the aim and procedure of the test. To commence the introduction, the researcher greets the participants in order to make them feel comfortable and this helps to reduce anxiety on the participants (Moletsane-Kekae, 2004). The researcher proceeds to explain the seating procedure, and he/she lets the participants choose freely where they want to sit. The researcher should note the seating preference of the participant. It is also important that the researcher tells the participants that the test will not affect their academic performance in any way. The researcher should also explain how the cards will be handled. The researcher repeats the instructions to ensure that the participants understand what they have to do with the cards. Besides, the researcher ensures that the ten cars are arranged in order (Moletsane-Kekae, 2004).

b) Re-Emphasizing phase (RE-Phase)

The re-emphasizing phase aims to further highlight how the cards will be handed over to the participants. The researcher makes sure that the participants understand the procedure. During this phase, the participants are allowed to ask questions where they need clarifications. The researcher can also repeat the instructions.

c) Preliminary Response Phase

Because the participants have not been exposed to this psychological test previously, it is normal that they will experience some anxiety. The researcher should support the participants by clarifying their doubts; but he/she should be careful as not to name the content of the test. The clarifications will help to reduce language and concept problems. The participants should be allowed to respond to the cards in isiXhosa or others language that they feel comfortable with.

d) Inquiry Phase (I-Phase)

Inquiry should be conducted immediately after each card has been responded to. The purpose of the inquiry phase is to prompt and encourage the participants to provide more responses.

e) Re-Inquiry Phase

The purpose of the re-inquiry phase is to enable the participants to extend their responses. If the participants provided less than 14 responses, the researcher should explain to them that they should go through the cards once more, starting with the cards that they provided the least responses.

In her study, Moletsane-Kekae (2004) reported that some of the participants did not give sufficient responses. Therefore, she investigated the factors that inhibited the participants who were from a disadvantaged school and who were never exposed to any psychological test before in order to give more than fourteen responses (R>14). Moletsane-Kekae's study adopted a qualitative research pre-test and post-test design involving a sample of ten (10) Black South African adolescents aged fourteen (14) years. She administered the standard Rorschach test in two phases, namely the pre-test and the post-test. It is worth to mention that the participants had not been exposed to psychological tests before and they reacted differently when they were presented with the Rorschach Inkblot cards for the first time. Therefore, during the pre-test phase, only five out of 10 participants gave 14 and more responses whereas the other five participants gave less than 14 responses. Since the total response was 127 with an average of 12.7, Moletsane-Kekae (2004) therefore identified and analysed the factors that inhibited the participants from giving 14 or more responses.

During the second phase, the ARCS administration procedures were designed to accommodate the participants' culture, beliefs and backgrounds. The participants were re-tested with the adjusted RCS (ARCS) after 10 months. During the post-test phase Moletsane-Kekae (2004) found that the number of responses increased when the ARCS was administered. Eight participants gave 14 or more responses and only two participants gave less than 14 responses. The total responses of the 10 participants were 161 with an average of 16.1; suggesting an

increase of 34 responses with an average increase of 3, 4 responses for each participant. Moletsane-Kekae (2004) concluded that the ARCS was a more appropriate and effective administering test procedure when testing black South African adolescents as compared to the standard RCS. The study recommends that when administering the Rorschach Comprehensive System among non-western participants, that the factors that could prevent them from giving sufficient responses should be identified and analysed in order to modify the test procedures. Moletsane-Kekae (2004) adjustment on the original RCS makes it possible to administer the RCS on non-western participants, particularly South Africans.

2.1.5 Test anxiety in testing situation

Meeus, Van de Schoot, Klimstra, and Branje (2011) identify three types of personality: resilient, over controlled, and under controlled. Resilient persons are characterized by self-confidence, emotional stability, and a positive orientation toward others. Over controlled individuals are emotionally brittle, introverted, and tense, whereas under controlled individuals are disagreeable and they lack self-control. Considering their characteristics, over controlled individuals are likely to experience more anxiety when confronted with a new situation or task than resilient individuals.

One of the characteristics displayed by adolescents is anxiety. Anxiety refers to an emotional and/or physiological response by an organism to known and/or unknown causes that may range from a normal reaction to extreme dysfunction (indicative of an anxiety disorder), affect decision-making and adherence to treatment, and impair functioning and/or affect quality of life (American Psychiatric Association [APA], 2000; Bush & Griffin-Sobel, 2002; Vitek, Rosenzweig & Stollings, 2006; Shahrokh & Hales, 2003). It is normal for people including students to feel some anxiety at any time; they are confronted with a new task or a new situation in everyday life. Students who experience test anxiety display high levels of stress, nervousness, and apprehension during testing and evaluative situations that significantly limit their performance, emotional, and behavioural well-being, as well as attitudes toward school (Cizek & Burg, 2006; Huberty, 2009). During the administration of ARCS to learners from a previously disadvantaged community in the Western Cape, the researcher was on the lookout whether the learners experienced test anxiety or not.

Although test anxiety and anxiety disorders share some characteristics, and students with test anxiety often experience anxiety disorders, these conditions are different (Huberty, 2009). People with anxiety disorders experience *trait anxiety*, which means that their high levels of stress appear to be on-going personal characteristics that are evident across settings and situations (Cassady, 2010; Cizek & Burg, 2006). Conversely, people that experience test anxiety tends to have *state anxiety*, which means that their high levels of stress are situation specific, for example extreme and unwarranted tension during testing or evaluative activities (Cassady, 2010; Cizek & Burg, 2006).

In a study that aimed to investigate self-efficacy, gender, and trait anxiety as moderators of test anxiety, Onyeizugbo (2010) used 249 participants that included 100 men and 149 women ranging from 23 to 30. The general self-efficacy scale, Westside test anxiety scale and state trait anxiety inventory were employed as methodological approaches to assess subsequently self-efficacy, test anxiety, and trait anxiety. The collected data were analyzed by using regression analysis, analysis of variance, and Pearson correlation. The result revealed that self-efficacy contributed on the variability in test anxiety, while trait anxiety moderated of variability in test anxiety. Furthermore, the findings indicated that gender was not a significant predictor of test anxiety. Finally, it was found that participants with lower self-efficacy had higher test anxiety scores. More specifically, self-efficacy linked negatively with test anxiety, while trait anxiety connected positively with test anxiety. In summary, the findings of this study suggested implications for developing programs to enhance performance in students having difficulties with testing situations.

Cassady and Johnson (2002) studied cognitive test anxiety and academic performance. This study pursued two aims. The first aim was to establish the reliability and validity of a new measure that focused on the cognitive approach of test anxiety and to examine the psychometric quality compared to the existing measures of test anxiety. The second aim was to determine the relationship among cognitive test anxiety and gender, procrastination, emotionality, and student performance. The sample of this study involved a total number of 186 (114 females and 53 males) student volunteers, aged 21 years-old, and from an undergraduate educational psychology course at Midwestern University. Cassady and Johnson's study (2002) used two instruments including test procrastination questionnaire (TPQ) to assess student's self-reported likelihood of procrastinating over tests and test anxiety for measure of test anxiety of the participants. Cassady

and Johnson's result (2002) revealed that the collected data were more credible to the reality of test anxiety than in contrived experimental settings. Furthermore, the traditional practice of focusing primarily on the testing session for information regarding the relationship between test anxiety and performance was unnecessarily restrictive. In addition, they found that the final examination period required the participants to prepare for multiple exams simultaneously; and these conditions likely limited the recovery strategies that the procrastinating students used to overcome the debilitating effects of procrastinating and they did not appear to be directly related to cognitive test anxiety (Cassady & Johnson, 2002). These results suggest that females reported higher levels of test anxiety in both emotionality and cognitive test anxiety. However, these results support the hypothesis that the cognitive domain of test anxiety was far more influential with respect to test performance than emotionally. Cassady and Johnson (2002) therefore concluded that the cognitive interference and information processing models of test anxiety seem to best account for the influence of cognitive test anxiety research as regards the contextual nature of the performance measures used in studies examining the impact of test anxiety on performance.

The logic underpinning my choice of the adjusted RCS as a suitable instrument for my study is explained below as my study's theoretical framework.

2.2 THEORETICAL FRAMEWORK

All research studies in behavioural, humanity and social sciences depend on a theoretical support. In formulating the theoretical framework of a study, researchers make an effort to locate and explain the theory or theories that inform their choices of the variables of their study (Radhakrishana, Yoder, & Ewing, 2007). My decision to employ ARCS to investigate the response rate and behaviour characteristics of learners from a previously disadvantaged community in the Western Cape Province anchors on two different perspectives of psychology, namely critical psychology and indigenous psychology.

Figure 1: A model of the study's Theoretical Framework

THEORY I
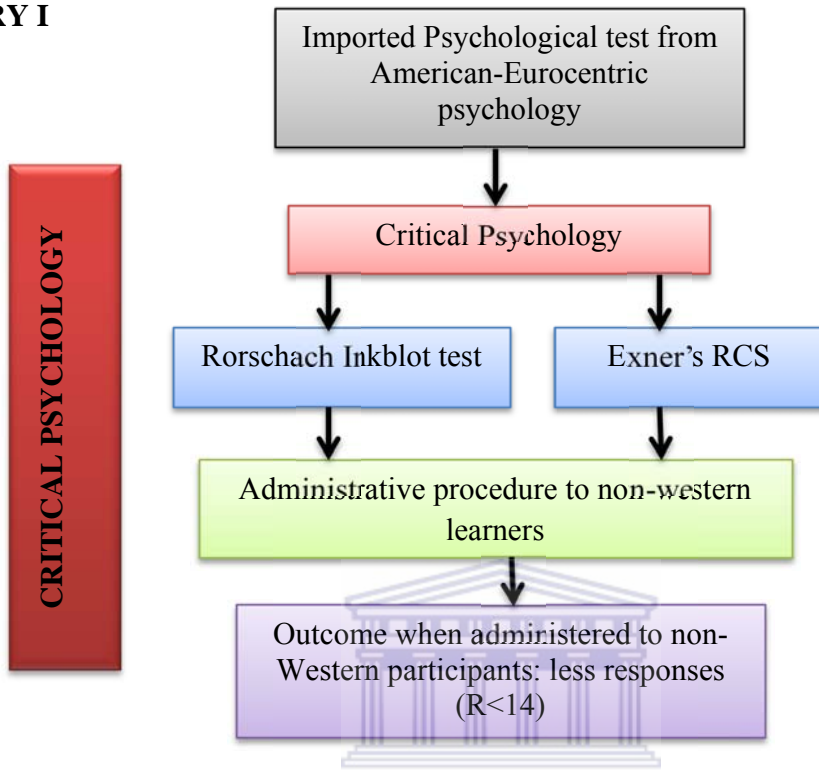
THEORY II
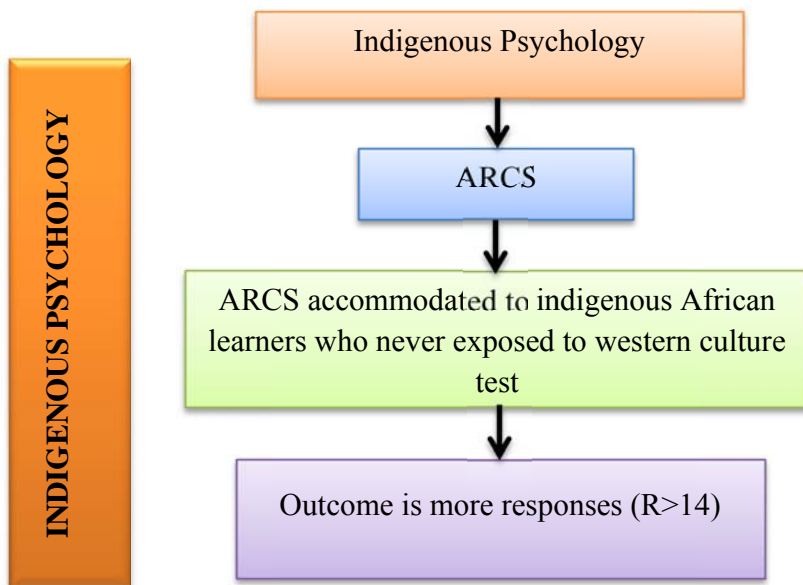
On the basis of the theoretical model in Figure 1, this study employs the Adjusted Rorschach Comprehensive System (ARCS) procedure to assess six participants, fourteen-year old from a previously disadvantaged school in the Western Cape in order to determine their response rate, their reactions, and the possible factors can lead to high or low responses.

2.2.1 CRITICAL PSYCHOLOGY THEORY

In this section, the researcher offers a discussion on the critical psychology theory. This is constructed around the historical background, content with regards to the South African and world-wide perspective and the relevance of critical psychology.

2.2.1.1 Brief historical background to critical psychology

Historically, critical psychology is directly developed over the last 50 years in different parts of the globe at individual level (Sloan, Austin, & Warner, 2007). However, Hook (2012) notes that critical psychology starts from fundamental concerns with oppression, exploitation and human well-being, with perpetual injustice. The most relevant of the emergence of critical psychology starts in Germany by the protestation of student movements in 1960s (Tolman, 2009). This is the critical research of Klaus Holzkamp (1925-1997) which provides an example of critical theoretical psychology with a practical emancipatory intention (Tolman, 2009). The critical psychology is developed on two stream of thoughts of radical rethinking of psychology namely on the significant Klaus Holzkamp's work (1927-1995) and reconstruction of the expanding of critiques. In North America, critical psychology is developed by the commencement of the Radical Psychology Network early in 1990 by Prilleltensky and Fox (1997) on humanistic perspectives in order to counter the determinism of psychoanalysis and behaviourism, and it focuses on transformation of the discipline of psychology for promoting an understanding of the nature of human being and their mental life as active and societal (Fox & Prilleltensky, 2009). In contrast in Canada, it was Prilleltensky and Nelson (2002) who, in their book entitled "*doing psychology critically: making a difference in diverse settings*" provided the readers with practical suggestions for how critical psychology may be applied in a range of diverse circumstances. On the other hand, British critical psychology comes hand in hand with crisis of psychology. The crisis of critical psychology and the emergence forms of Anglo-Saxon base in critical

psychology in British coexist with academic movements and the rise of New Left in European (Sloan, 2000). Critical psychology in the Danish context is developed from and alongside endeavours in the German context. The central issue of practice research is to analyse and develop an understanding of complex practices with the aim of engaging in further development of methods and theoretical frameworks of particular relevance to the practices studied.

In South African, critical psychology involves questions of the post-colonialism, feminism and gender studies, the psychological process, dynamics, capacities, and practices through which people may achieve emancipation, freedom, liberation, and space from particular power structures of oppression and exploitation (Hook, 2004, 2009, 2012). In an African context, Nsamenang (2000:93) focuses on critical psychology and the challenges pertaining to Euro-centrism psychology. These transformations lead us to the integration of critical psychology theory (Blackman, Crombly, Hook, Papadopoulos, & Walkerdine, 2008). Critical psychology is a response to an inadequate theory or practice in the field of psychology (Nightingale & Neilands, 2001:68). This previous aspects were likewise in parallelism to Fox, Prillentsky, and Austin (2009) that in their *"introduction of critical psychology"*, describe critical psychology from different traditions that typically share several concerns about mainstream psychology focuses

- on the individual rather than the group and larger society;
- over-emphasises individualistic values, hinders the attainment of mutuality and community, and strengthens unjust institutions;
- its underlying assumptions and institutional allegiances disproportionately hurt members of powerless and marginalised groups by facilitating inequality and oppression, and unacceptable outcomes occur regardless of psychologists' individual or collective intentions to the contrary (Fox *et al*., 2009:5).

The ultimate goal of critical psychology is to inspire a revision and a formulation of broad based structures of reference that can permit and foster the development of paradigm, theories, and methods and so on.

2.2.1.2 Key Assumptions of critical psychology

Parker (2004) points out that the assumptions of critical psychology presuppose that the research looks at the issues of politics, practice, morality and social change. Furthermore, Hook (2012) assumes that critical psychology starts from fundamental concerns with oppression, exploitation and human well-being, with perpetual injustice. This argument is the mirror that reflects what people in opposition of disadvantaged need and want. Critical psychology refers to some basic components namely institutions, organizations, or practices and it asks questions about broader social influences. For this reason, a principal objective of critical psychology is to contest essentializing forms of psychology and it lies with tracking the way psychology mirrors and hence reproduces present-day, cultural-specific and historical-bound assumptions about human nature, experience and behaviour (Parker, 2004:140). Critical psychology approach is a response to an inadequate theory or practice in the field of psychology (Nightingale & Neilands, 2001:68). Hepburn's (2003) thought indicates that critical social psychology is also critical of psychology itself. Sloan's (2000) conception of critical psychology provides a voice for those persons and groups denied such voice which is an essential element in bringing about the societal transformations needed to achieve human betterment.

a) Critical psychology and subjectivity

As the researcher recognizes that, in order to address psychological issues, it may be useful to consider critical psychology rapprochement with subjectivity in the central consideration of discourse and rhetoric at the heart of critical psychology (Blackman *et al.*, 2008). Although it is not the researcher's intention to present the evolution of the subjectivity concept, the researcher nevertheless finds relevant to describe the range of positions on subjectivity in relation to psychological theories. The need of how it should be understood lies as assumption at the centre of many debates surrounding critical psychologists and theoreticians in critical perspectives. For example, Blackman, Cromby, Hook, Papadopoulos, and Walkerdine (2008) in their journal, *"Creating subjectivities",* explore subjectivity as a locus of social change, and they examine how engaging subjectivity remakes our social world. The concept "subjectivity" is chosen in critical psychology for very specific reasons (Hepburn, 2003), because it emphasises individual awareness and wear of concepts used to understand the self and the world, and because it makes

a specific reference concern with how the individual is produced as subject in history and social relations (Foucault, 1980). Critical psychology places in a formative relationship to its world and is more than a passive of its natural and societal conditions. In addition, it is a psychology from subject's standpoint (Holzkamp, 1968, 1997). Gordo-Lopez (2000:57) insists that psychoanalytic resources contribute more in the development of critical understanding of subjectivity against the unified and frequently reactive subject of mainstream psychology, among other positive contributions, in the development of critiques in the field of critical psychology. Held (2006) sustains that critical psychologists give the subject great significance, and they are interested in subjectivity because traditionally subjectivity sounds too individual. Critical psychology tries to develop an account of what a person is different from the account in both traditional individual. Traditional critical perspective in psychology has sought to embrace the subjective, with the complaint that psychology's drive for objectivity is the problem (Blackman, *et al.*, 2008). The critical psychologists point out that critical psychology cannot position entirely in value free and objective, but it should be acknowledged on the subjective nature of their effort (Prilleltensky & Fox, 1997, Fine, 1997, Hepburn, 2003). In addition, Hook (2004:15) points out that, by presenting psychology as science, it provides an account of the processes by which an individual becomes subject of and for ideology, psychology effectively isolates the individual from social sphere, the inter-subjective from the ideological, the psychological from the political. This above reason emphasises why critical psychology wants to champion subjectivity, thus it is something that objective approach in psychology ignores.

b) Critical Psychology and power in South African perspective

In South Africa, psychology has engendered a dynamic tradition of critical psychology activity, the conditions in which it worked, as it has been more marginalized and less institutionally supported (Painter, Terre Blanche & Henderson, 2006). Duncan, Stevens and Bowman (2004) mention that most of the basic critical psychology in South Africa was about the power relationships constituted by psychology as a form of knowledge and practice. In South Africa, critical psychology is generally a part of a global agenda of resistance. Furthermore, Painter, *et al*. (2006:213) indicate that critical psychology provides useful examples of successes and failures, potentials and impotencies in attempting to articulate psychology with progressive and

emancipatory political projects. Thus Painter, *et al*. (2006:216) describes the birth of critical psychology in South Africa as to characterize two interrogations. One accuses psychology as being a product of and a sanction for an inequality reign of a political system. White people and the upper class are interested in the marginalization of the blacks and the women perspectives. The second is the ideological architecture of scientific and it is applied psychology that reveals the serious work of reconfiguring psychology as a socially relevant, progressive and even revolutionary practice along with new epistemological, theoretical and methodological lines. Viewed from this perspective, Critical psychology is aimed to challenge the dominant theories and perspectives in psychology, and it works towards redressing the injustices, misrepresentations and implicit ideological imbalances endemic to academic and professional practice. Numerous writers, psychoanalysts, psycho-politics and psycho-sociologists and practicians in psychology emerged through an institute in the academic knowledge of post-apartheid South Africa. Painter, *et al*. (2006) illustrate that the mainstream psychology positions itself facing neo-colonialism, racism, capitalism exploitation and neo-liberal market ideologies as well as the potential of critical alternatives to upset these ideologies complicities and to create pockets of resistance.

Traditionally, western approaches to psychology are based on philosophical and values systems and imposed on non-Western populations. Mkhize (2004:3) explains the differences between Western and African ideas of selfhood. He confronts the foundation of psychology including the concept of the self. He shows the notion that an individual is taken for granted is a starting point for most mainstream psychology is in fact a social construct, specific to recent western culture. He contrasts Western ideas of the independent self-contained individual with African notions of selfhood as existing in relation to others and the environment. Mkhize's (2004) analysis draws attention to an on-going theme in critical psychology namely the colonial nature of psychological knowledge. Psychology, especially in its claim to an objective science, is a victim of a profound conceptual narcissism. While trivialising the knowledge developed in other cultures by dismissing them as primitive, unscientific or otherwise idiosyncratic, psychology has failed to reflect on its own limitations as a very specific cultural form, a product of western cosmology, philosophy, and historical ideas. As a result, it imposed itself unthinkingly on other cultures, often offering inappropriate ideas and method while simultaneously undermining the existing indigenous knowledge systems. Mkhize (2004) shows how the overwhelmingly western bias of

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psychological training in South Africa leaves professionals ill-equipped to deal with local problems. He argues instead for an indigenisation of psychological knowledge, showing the importance of producing frameworks that are consistent with local experiences and worldviews, and that are applicable to local problems.

However, Parker (2004:3) takes his *"exploration of critical issue of psychology to the discussion of psychoanalysis and critical psychology"*. Whereas scientific psychology simply asks whether a particular claim is true or false, Parker highlights the importance of examining the social effects of adopting particular theoretical frameworks. A frequent danger of uncritical psychology is that it takes culturally specific assumptions about people and presents them as universal of human nature in exactly this way. Critical psychology should look at the radical potential of either that lying outside of psychology or to its peripheries (Parker, 2004:142). Parker (2004) also shows that these critiques can be applied to mainstream psychology, such as by exposing the myth of researcher as an objective enquirer, revealing instead the unconscious process and desires that might influence the research process.

Fox, Prilleltensky and Austin (2009) provide a good synthesis in critical psychology, given an opportunity to revisit key critiques of the discipline of psychology, whilst perhaps more importantly for a South African audience, to consider their relevance across geographical and political contexts. They draw together the ideas of a wide group of writers, many of whom have been central to the development of critical psychology internationally. As such, they reflect on debates and ideas that, over the past fifteen years, have shaped how psychologists have critiqued their discipline and, for South African psychologists, tackled post-apartheid social issues. There is no doubt that psychology was used in the service of apartheid ideology. However, there is equally a pocket of resistance by psychologists who attempt to critique, rethink and at times, abandon the discipline. These researchers provided the impetus to reflect on and reconsider the importance of these debates in the South African context, and emphasize that they aim to create a community of critical psychologists and the breadth of the contributions already points to the success of this project.

2.2.1.3 Relevance of critical psychology theory to the study

The rhetoric and debate on critical psychology discussed in this study is an important qualification of mainstream psychology. It is viewed as necessary in a societal context as a point of departure from depoliticizing, individualizing particularly in United States or Eurocentric form. It is primarily concerned with power, societal structure and historical location that operate as a means of critique (Hook, 2012). Practices and theoreticians seeking to develop a critical psychology within an African context need to engage this material and local communities with a certain degree of curiosity and humility (Ka Sigogo & Tso Modipa, 2004).

Critical psychology needs to facilitate and encourage rival theories and forms of explanation which counter these ideological biases, and which do so in an on-going way. There is something particularly powerful about psychology, but the researcher should still be careful to keep in mind that our critical work here should go alongside a critical perspective on the accommodation practices of Rorschach tests.

As noted by Nightingale and Neilands (2001:68), critical psychology is a response to an inadequate practice in the field of psychology, and so in this study, it is a response to an inadequate practice of the administration of the Rorschach test on learners from a previously disadvantaged school in the Western Cape.

2.2.2 INDIGENOUS PSYCHOLOGY THEORY

2.2.2.1 Introduction

Having addressed the first part of this theoretical orientation in the previous section, this section focuses on indigenous psychology. The section presents the historical background of the theory, how the theory emerged and developed into indigenous circumstances. Then the researcher elaborates on the indigenous psychology around two distinct forms of psychological knowledge namely Indigenous Knowledge Systems (IKS) and Western Scientific Knowledge Systems (WSK) before he outlines the relevance of the theory to the present study.

Ho (1998:93) considers indigenous psychology as a study of human behaviour and mental process within a cultural context that relies on values, concepts, belief systems, methodologies, and others resources indigenous to the specific ethnic group under investigation. This indigenous psychology has grown out of the basic political, economic, religious, and social components of

each culture (Lawson, Graham & Baker, 2007). As a discipline, psychology is spread around the world; it is usually imported into countries where the culture is so substantially different from North America and Western Europe that the imported discipline is soon seen by local psychologists to be ill-suited to their culture (Adair, 2006). In Allwood and Berry's (2006) conception, the existing psychological theories reflect the Euro-American values that champion individualistic, de-contextualized, and analytical knowledge.

2.2.2.2 From Euro-American Psychology to Indigenous Psychology

A better understanding of the origin of indigenous psychology, particularly in a scientific framework, looks at the conditions and processes that underlie the emergence of indigenous psychology that seek to reflect the social, political, and cultural features of people all-over the world (Allwood & Berry, 2006). In light of this argument, it can be stated that human behaviours are influenced by cultural environment in which they are developed (Siakas & Georgiadou, 2006). These behaviours often have their foundations greatly in religio-philosophical tradition (Allwood & Berry, 2006). However, Wilhelm Wundt (1950) is recognized as the father of modern psychology. The conception of folk psychology also reflected an influential tradition of social scientific thought and considered psychology to be a part of the cultural science tradition and not of natural tradition (Chakkarath, 2012). Allwood and Berry's (2006) analysis considers the field of psychology as a complex set of behaviours concerning concepts, methods, and interpretations that emerge under the influence of cultural region of the world (Euro-American). A historical perspective of the field of psychology demonstrates that, as a science, psychology emphasizes on such philosophies such as objectivity, rationality, and universal truths (Marsella, 1998 in Hwang, 2009), as reductionism, experiment based empiricism, materialism, quantification, nomothetic laws, and rationality, as an academic discipline and profession, rooted from the Europeanized or Americanized psychology (Marsella, 2009). As Sloan (1996) points out, psychology is based on the center beliefs of individualism and scientism. Its theory and research methodology consist of a Western ethnocentric bias (Segall, Dasen, Berry, & Poortinga, 1996 in Hwang, 2010). Marsella's (2009) analysis reveals that a lot of these verified assumptions create a direct and real conflict with many hypotheses of psychologies from non-Western cultural and historical traditions. Ho's (1996) argument also suggests that the implantation of Western psychology in academic paradigm is a spirit's kind of academic imperialism or

colonialism. However non-Western psychologists who followed this way, for example Yung-ho Ko (2009) viewed that the non-Western psychologists must expect to develop very appropriate indigenous psychology theoretical framework by integrating their experiences of teaching, practicing and doing research as well as interpreting themselves when resolving problems in their societies. Nsamenang (1995) stated that indigenous psychology challenges pertain to Euro-centrism psychology was cultivated in the industrialized countries and then imposed on sub-Saharan Africa. Otherwise they spend their academic or practical careers like walking corpses without soul by following Western paradigms blindly.

2.2.2.3 Development and Implementation of Indigenous Psychology

Emphasised on the above argumentations, a new mainstream was observed as a local and an international phenomenon in order to promote the field of indigenous psychology (Hwang, 2005). This academic movement is over 40 years and many of its original pioneers begun to advocate an indigenous approach to the field of psychology in non-Western countries (Nsamenang, 2000, Mkhize, 2004, Painter, Terre Blanche & Henderson, 2006, Holzkamp, 1997, Biglia & Dordo-Lopez, 2006, Fox, Prillentsky, & Austin, 2009, Allwood & Berry, 2006, Hwang, 2004, 2005, Yang, 2012; Chakkarath, 2012). Parallel to these developments, an indigenous psychology movement has spread to many areas and regions all over the world (Allwood & Berry, 2006). Most indigenous psychologists defend a bottom-up model building paradigm (Kim, Park & Park, 2000). This school of thought has been recognized as valuable and it has gradually started to receive attention (Shiraev & Leevy, 2001 in Odendaal, 2010). This school of thought proposes certain tentative solutions by conducting a number of researches in community psychology such as Rogelio Diaz Guerrero (1975) for Mexico, Kwon (1979) for Korea, and the Chinese societies, Church, Virgilio Enriquez (1977), Lagmay (1984) for the Philippines, Durgan and Durganand Sinha (1986) for India, Azuma (1984) for Japan, Kuo-Shu Yang (1997) for Taiwan (Hwang, 2005, Nowell, 2012). In the face of such problems, Yang (2012) argues that indigenous psychology is directly and spontaneously created under the influence of local folk and philosophical psychologies, and under the once influenced Euro-American sociocultural factors. Hwang's (2010) conception describes that the major aim of developing indigenous psychology is to build different systems of knowledge emphasised on folk wisdom, in order to help indigenous people in solving their real problem efficiently.

Hwang (2009) sustains that the emergence of indigenous psychology can be understood as a search by non-Western psychologists for cultural identity in the power of the new world order. The goal of these contestations according to Ho's (1998:94) is regarded as promoting an atmosphere of the academic human behaviour and mental processes which is essential for scientific progress within a cultural context that relies on values, concepts, beliefs systems, methodologies and other resources. Kim and Berry (1993) sustain that indigenous psychology should be given the meaning of the psychological knowledge that is native, which is not transported from another region and designed for its people. In other words, indigenous psychology roots in a singular socio-cultural system that influences the formal, political and educational institutions as well as social factors; those have and will continue to change the state of psychology. Furthermore, Yang's (2000:245) conception emphasises that indigenous psychology should be an evolving system of psychological knowledge founded on scientific research that is adequately applicable with the studied phenomena and their ecological, economic, social, cultural, and historical contexts. Furthermore Kim and Park (2005) argue that the goal of indigenous psychology is not to abandon science, objectivity, and a search for universals, but to create a science that is firmly grounded in the descriptive understanding, and a more rigorous, systematic, universal science that can be theoretically and empirically verified. As the emergence grows in proportion, the result offers an alternative view for example to feminism psychology, cultural psychology, cross-cultural psychology, critical psychology, indigenous psychology. Indigenous psychology perspective develops in many different countries elsewhere in the world, and it represents an important challenge to the Western psychology (Allwod & Berry, 2006). The epistemological goal of indigenous psychology is to construct a series of formal models which should be able to present the universal structure of human minds and account for people' s specific mentalities in indigenous culture (Hwang, 2009, 2012). Greenfield's (2000:229 in Hwang, 2012) statement argues that the incorporation of culture into mainstream psychology will not come from presenting data on group differences, no matter how exciting or dramatic these differences may be. His theoretical mission is to introduce the idea of a deep structure of culture. Greenfield's (2000) analysis understands deep structure of culture, which comes from behaviours and interpretations of human behaviour in an infinite array of domains and situations. He believes that the terms behind individualism and collectivism,

independence and interdependence, a rational versus an individual orientation and so on, are all indexing a common deep structure.

A reaction against the Western intellectual influence and a lack of usefulness to solve social problems (Marai, 1997) argue that indigenous scholars usually from third world countries, who studied in the west, when they returned home they had learnt was difficult to apply and at the extreme, irrelevant, incompatible, inappropriate, inapplicable (Enriquez, 1981, Mehryar, 1984, Hwang, 2005).

2.2.2.4 Distinction between Indigenous Knowledge System (IKS) and Western Scientific Knowledge System (WSK) in indigenous psychology

Table 2.1 Summary between IKS and WSK in psychology

Indigenous Knowledge System (IKS)	Western Scientific Knowledge System (WSK)
- Local: Value laden, - Subjective : interpretivist, - Collectivism, - Powerful prediction based on long term wisdom, - Understanding based on assumptions, examples, parables, - Competency based on survival skills, and measured through subjective prediction - Ubuntu principle.	- Universal: value free, - Objective: positivist, - Individualism, - Powerful prediction based on short term natural principles, - Understanding based on hypothesis, theory, - Competency based on predetermined idea and measured through various forms of objective tests - What is mine is mine only.

As Lawson, Graham and Baker (2007) argue, indigenous Psychology (IP) is often used in two distinct forms of psychological knowledge namely Indigenous Knowledge Systems (IKS) and Western Scientific Knowledge Systems (WSK). In a 2007 explanation, Trumble defines knowledge as, "information and skills acquired through education or experience" or an "awareness or familiarity gained by experience of a fact or situation". Hays's (2009) conception is that, there is no specific universally accepted form to distinguish knowledge referred to, as it depends on "traditional knowledge", "local knowledge", "indigenous knowledge", "traditional environmental knowledge" or "indigenous knowledge systems". It is also referred to as, "indigenous technical knowledge", "peasant' knowledge" and "folk knowledge" (Sillitoe, 1998 in Mercer, Kellman, Taranis & Suchet-Person, 2010). In addition, it varies according to the essence of the knowledge, which is particular to a specific space and unique group of community. This explanation can be distinguished in two great forms including 'indigenous knowledge' and 'scientific knowledge' (Mercer *et al.*, 2010). However, Henderson-Youngblood (2000:41) defines "indigenous knowledge" as a complete knowledge system with its own concepts of epistemology, philosophy, scientific and logical validity which can only be learned and understood by means of pedagogy traditionally employed by the people themselves. For purpose of this study, the researcher is interested in and employs the term "Indigenous Knowledge System" (IKS) with reference to a Department of Science Technology (2004) policy as the above is marginalized, suppressed and subjected to ridicule (Hays, 2009). The researcher will adapt the IKS to adjust the test, as some of the concepts are not understood by the participants in the same way as the Rorschach test is meant to be administered.

Importantly, the framework of scientism around the relationship, disconnection between scientific and indigenous types of knowledge is controversial. The main differences appear to concentrate on how individuals relate with other and in communities. However, Dahdouh-Guebas, Ahimbisibwe, Van Moll and Koedam (2003) and Rist, Zimmermann and Wiesmann (2004) study the typological science in relation to local and indigenous knowledge categories. Dahdouh-Guebas *et al.*'s comprehension indicates that an intercultural relationship can change from competition and the imposition of uniformity of general knowledge to the search for complementarities and cooperation in the middle of diverse forms of cultural knowledge. The purpose is for mutual learning and adaptation in the light of obtaining new approaches rather than just attesting existing ones. Their findings reveal that an intercultural dimension is the more

acceptable way that relates to diverse knowledge kinds because it emphasizes mutual respect, and it keeps the autonomy of the many processes of knowledge production. Dahdouh *et al*. (2003, 2004) suggest that three great issues of intercultural knowledge. First, the relationship between WSK and local or IKS depends on the specific ethical positions. No relation between these terms can thus be 'value-free' because it is impossible to define a framework as an 'objective' or 'science–based' relationship. Secondly, intercultural levels involve the creation of possible fields of interaction between various types of knowledge. The central focus is the will to communicate, which can be formulated as: 'I accept the possibility that the other may be right'. The third perspective suggests the fact that real intercultural communication is more likely to happen when the parties involved shares questions on fundamental aspects related to the form of knowledge they represent.

Malnar, Bartha, and Badai's (2008) argument, in contrast, indicates that the similarity of IKS and WSK can be approved, since both are aimed in understanding the surrounding world. Both are rational, empirical and they produce permanently verified descriptions, explanations, and predictions through the observation of patterns. Both systems of knowledge can be completely communicated in their specific language and both are culture foundation (See Aikenhead, & Ogawa, 2007). The consideration is holistic, functional, and adaptive to changes in societal and natural environment, and it has been transmitted for several thousand generations (Rist & Dahdouh-Guebas, 2006:471). It contains spiritual components, its declarations are value-based, totally qualitative, and locally pertinent and emphasised on centuries of experiences. Predictions have a purpose to assure the long term survival of the community (Malnar *et al*., 2008). In contrast, WSK claims the objectivity of analysis towards value neutrality in finding and rejecting all hypotheses to be mysticism. Its aim is personal scientific efficiency, or knowledge for its own sake. The results of research are manipulated with quantitative method, verified and tend to be universal.

As a consequence, the role of conventional scientific knowledge production in the context of societal process is an interdisciplinary approach (Rist & Dahdouh-Guebas, 2006). Norgoard (2004) sustains that the WSK searches for to gather together the objectives and methodologies.

In a 2005 study, Barnhardt and Kawagley also exploit a strong case for the distinction of Indigenous Knowledge System (IKS) to Western Scientific Knowledge (WSK). They reveal that

even if Western Scientific Knowledge (WSK) shows a preference for highlighting knowledge as a category that is often decontextualized and taught in the detached context of classroom or laboratory, indigenous people have traditionally procured their knowledge under native world, for the 'Lows' have always been evaluated in the context of their daily survival. In addition, Barnhardt and Kawagley's (2005) analysis demonstrate that WSK differs from IKS in its notion of competency. In Western understanding, competency is often assessed based on predetermined ideas of what a person should know, which is then measured based indirectly through various forms of "objective" tests. This approach does not correlate if that individual is actually allowed to put that knowledge into practice. In the indigenization perspective, competency has an unequivocal relationship to survival or extinction whether one fails as a caribou hunter; the whole community is in jeopardy. One either has or does not have requisite knowledge, and it is tested in a real world context (Barnhardt & Kawagley, 2005).

Generally in non-Western perspectives and South African context in particular, collectivism (Oysterman *et al*., 2002, 2008) play out in the idea of *Ubuntu,* that is a specific indigenous category of being in a societal community with other individuals (Mkhize, 2004). Furnhan, Ndluovu and Mkhize (2009) sustain that, in the African people's conception, collectivism reflects a form of intelligence and knowledge that makes indigenous peoples more of inter-and intra-relationship than of an individualistic, inherited, self-achievement type of intelligence typical of the Western world. African cultures tend to value nature reflection, social skills and world wisdom-solving and knowledge accumulation.

2.2.2.5 Relevance of indigenous psychology to the study

The development of indigenous psychology incorporates the notion of their cultural contingency into self-understanding. Indigenous psychology is relevant to this study because the participants of this study come from indigenous African population background; it deals with human behaviour, and the mental process of a particular cultural group, which in this study is fourteen (14) years old, in Year 1 at school of skills in Khayelitsha area in the Western Cape.

Indigenous psychology dimension can have a place in our effort to present culture and beliefs in the field of psychological test, because of the methodology used will be within an indigenous cultural context. This methodology employs how indigenous psychologists can improve our

lexicon or language about keywords of diverse cultures under this study. Indigenous psychologists should have to present their results as whether they are unique, applicable on the one indigenous background, in which they have studied. The methods used by indigenous psychologists reveal pertinent issues as they demonstrate these similarities in indigenous settings. Indigenous psychologists use the measures of subjects in several psychological tests of reliability and validity, and to predict some conditions. Thus, these above related implications confirm that indigenous psychology approach has already been integrated at the theoretical level to the human psychology.

CONCLUSION

In this chapter, the literature review consisted of the administration of Rorschach Inkblot, Exner Rorschach Comprehensive System, and Adjusted Rorschach Comprehensive System as well as their historical background, nature and explanation of administration procedure. This chapter also reflected on test anxiety in testing situation. Critical psychology and indigenous psychology were as theories. The distinction between indigenous knowledge system and western scientific knowledge system in indigenous psychology ended the discussion in this chapter.

OOO

CHAPTER 3

EMPIRICAL RESEARCH

3.1 Introduction

In this chapter it was highlighted that this study employs interpretive, qualitative descriptive exploratory case study design. This chapter provides an account of the methodology of the study with a particular reference to the paradigm, approach, design, methods, procedures, ethical considerations, data presentation and analysis. The conceptual framework in Figure 2 further illustrates the choices that were made concerning the methodology, design, method, procedure of data collection and quality criteria of qualitative research of the study.
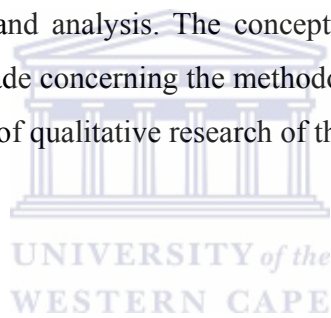
3.2: Conceptual framework of the Methodological Choice and Design
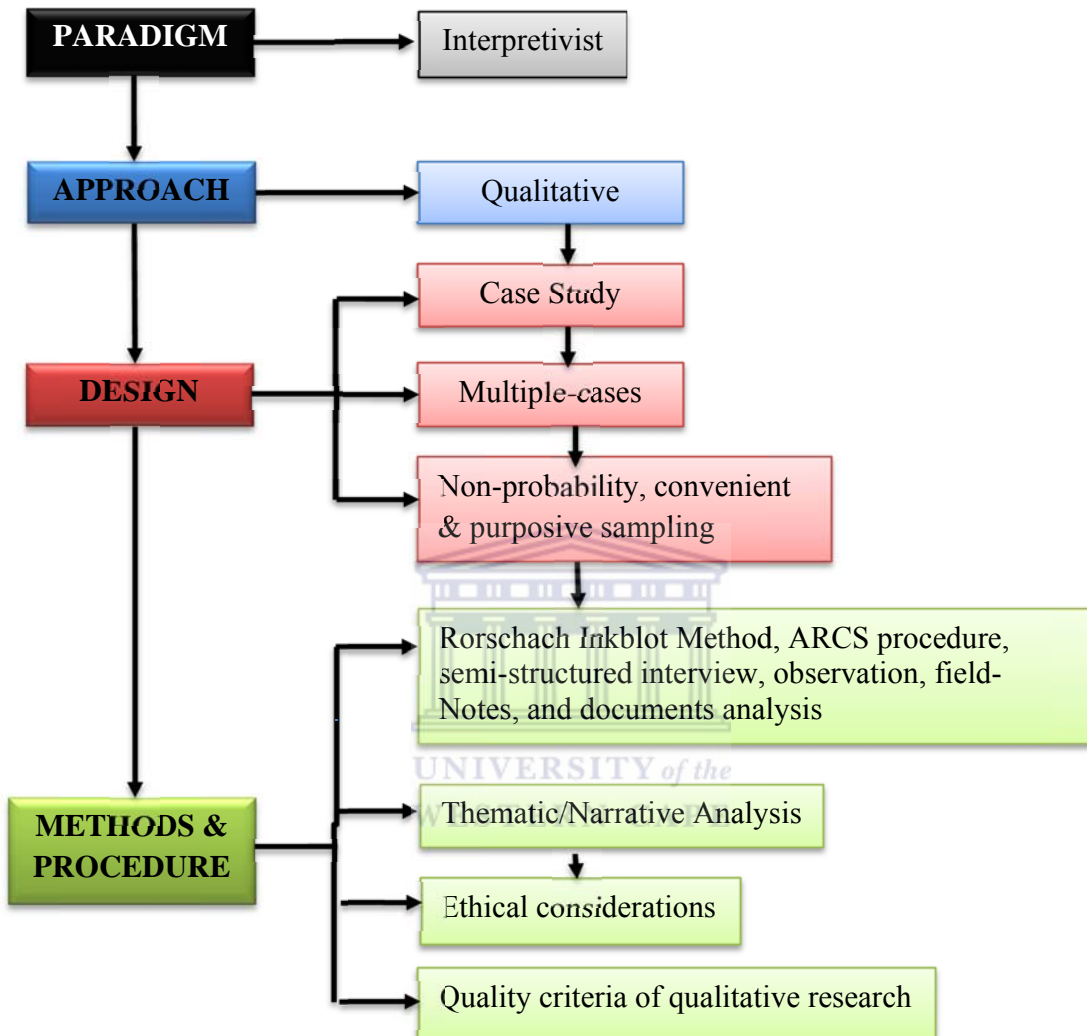
Figure 2 The Methodological Framework

Figure 2 indicates that there are a number of key areas that the researcher made choices to ensure that the study achieves its aim and objectives stated in Chapter 1. The decisions are concerned with the research paradigm, research approach, research design, methods of data collection, and procedure of the study. These issues are discussed in the subsequent sections of this chapter.

3.2.1: Paradigm of the Study

Paradigm refers to a system of ideas, or world view, used by a community of researchers to produce knowledge (Fossey, Harvey, McDermott, & Davidson, 2002). According to Creswell (2007), research paradigm approach specifies the research culture including a set of general philosophical beliefs and interrelated assumptions about the natural social world, which provides a philosophical and conceptual framework that guides the organized study of that word. Creswell (2007) describes research paradigms as the lens through which researchers view and interpret reality. The term "paradigm" is an integrated cluster of substantive concepts, variables, and problems attached with corresponding methodological perspective and tools (Ng Ha, 2011:190). Tuli (2011) notes that research paradigm determines how members of the research community consider the phenomena, their specific community being studied, and the methodology of the research. Based on these clarifications, it can be concluded that a research paradigm is concerned with the epistemology that predetermines the kind of research approach, design, methods and strategies that are suitable for a given inquiry.

a) Interpretivist

This study is located within the interpretivist paradigm. Niewenhuis, (2007) describes interpretivist paradigm as a research tradition that emphasizes the following: (1) human life is understood from within, (2) not from an external reality, (3) social life is distinct to influence by knowledge of the social world, and (4) social world does not exist independently of human knowledge. These four assumptions distinguishes interpretivist paradigm from positivist paradigm. Positivist paradigm is based on the assumption of objectivity, measurement and quantification. Whereas interpretivist paradigm provides narrative descriptions, positivist paradigm provides statistical descriptions. Basically, interpretivist paradigm focuses on understanding people's subjective experiences (Cohen & Manion, 1994), and the realities are not objectively determined but they are constructed socially (Niewenhuis, 2007; Hesse-Biber & Leavy, 2010).

Integrating intrepretivist paradigm in this study means that people's subjective experiences is crucial and that meaning is socially constructed. In this study, the participants bring their prior knowledge, values, and experiences into the social settings.

3.2.2: Qualitative approach

The focus of this study on drawing conclusions based on subjectivity, interpretation of perspectives, and social construction of meaning necessitates qualitative approach. Kvale (2008) refers to qualitative approach as exploring the world out there in an effort to understand, describe and sometimes explain social phenomenon from the inside in a number of different ways. The different ways include analysing individuals or groups, analysing interactions and communications in the making; and analysing documents (texts, image…) or similar traces of experiences or interactions. Munhall and Chenail (2008) simplify qualitative research as a systematic, subjective approach employed to illustrate lived experiences and accord them explanation. It is on the basis of life experience that Denzin and Lincoln (1994) argues that qualitative research is an interpretive and naturalistic approach to its subject's matter. Burns and Grove (2010) indicate that the methodological approach in behavioural and social sciences is concerned with understanding the unique, dynamic, holistic nature of human beings. It is this holistic nature that demarcates qualitative from quantitative research. Maskew (2001) indicates that a qualitative design is appropriate when we intend to examine the properties, values, needs, or characteristics that distinguish individuals, groups, communities, events, settings, or messages. Miles and Huberman (1994) and Ye (2011) contend that we understand phenomena and contexts by contrasting, comparing, replicating, cataloguing and classifying the objects that constitute them.

3.2.3: **Case study design of the Study**

The emphasis on context and lived experience necessitates the use of a case study. The need for case study arises out of the desires to understand social phenomena, because the case study method allows investigators to retain the holistic and meaningful characteristics of real life events, such as organisational or managerial processes (Yin, 2003:2). The study did not focus on any organisation of real event but on selected learners. Therefore, a multiple-case design is employed. Zainal (2007:3) states that multiple cases design can be adopted with real life events that show numerous sources of evidence through replication rather than sampling logic. Single case design is adopted where there are no other cases available for replication. By replication, it means that the cases resemble duplicate each other, thereby provides an opportunity for cross-

case comparison to achieve greater certainty which is not offered by single-case design (Yin, 2003; Darke, Shanks & Boadbent, 1998).

Case study design focus on context and lived experience of participants (Bashir, Afzal & Azeem, 2008; Baxter & Jack, 2008; De Wet, 2010:191) and the search for patterns, ideas, propositions, or assumption rather than confirming assumptions (Burns & Grove, 2010). In order to perform these two key functions, case study research usually employs descriptive strategy or exploratory strategy, or both. This study integrates both descriptive and exploratory strategy into the design. The descriptive component is concerned with describing the aspects of social reality under investigation and providing an accurate and valid representation of the factors or variables that pertain to persons, organisations, settings, and phenomenon (Burns & Grove, 2010; Bless, Higson-Smith & Kagee, 2006). To accommodate the descriptive component of the design, the researcher gathered information about the participants from their teachers in addition to the biographic details collected during face-to-face interviews. Conversely, exploratory strategy is concerned with searching for patterns, ideas, propositions or assumptions rather than confirming assumptions (Creswell & Clarke, 2007). The researcher sought for patterns in the responses of the participants and he drew conclusions based on the common denominators.

3.3 The Research Site

For ethical reasons, a pseudo name is used in place of the actual name of the school. Throughout this study the school will be referred to as Mont Rose. Mont Rose, situated in Khayelitsha, was established in April 2009 as a school of skills and it became operational in 2010 with three departments: bricklaying, needlework, and hairdressing. At the end of 2010, woodwork was introduced, and Art and Craft in 2011. The staff, consisting of thirty five (35) members, comprises of a principal, three Head of Departments, two deputy principals, twenty educators, a counsellor, an administration officer, a finance officer, three cleaners, and two cooks. The schools consists of four levels; Year 1 to Year 4. The entry age of the learners is 14 and the exit is 18, implying that the learners were mainly adolescents. Khayelitsha, a Black (African) township situated about 30 kilometres from Cape Town central business district, is a settlement for middle and lower income people. The majority of the learners in Mont Rose were from Khayelitsha, Delft, and Mfuleni. As at the time of this study, Mont Rose had a student population

of 400, comprising of 120 boys and 280 girls. Some learners walked to school, while others came by taxi depending on the distances of their homes from the schools.

Mont Rose is adjacent to a cluster of residential buildings. Like most schools situated in Black townships near previously white dominated settlements, Mont Rose had electricity and pipe-borne water. The school is fenced and has a security gate. The classrooms and playgrounds are spacious. It has a computer lab and a library. The learners are not allowed to move out of the school compound during lunch break. The next section presents how the sample was selected.

3.4 Sampling and Sample

Cohen, Manion, and Morrison (2010) define a sample as a smaller group or subset of total population carefully selected so that the knowledge gained from the sample is representative of the total population under study. Gilbert (2008) refers to population as the totality of objects in the real world in which the researchers is interested. For my study, the population is the totality of the learners in Mont Rose. A sample, on the other hand, is drawn from the population and it has the same proprieties of the broader population from which it was selected (Gilbert, 2008). Western Cape Province consists of eight education districts, namely Cape Winelands, Eden and Karoo, Metro Central, Metro East, Metro North, Metro South, West Coast, and Overberg. Mont Rose is situated in Metro East Education District. There are 206 schools in the Metro East district.

The sample for the study was selected by non-random sampling, described by John (2012:76) as appropriate for selection of sample especially in small-scale, in-depth research project. Mont Rose was selected as a convenient sample. It was accessible and would enable for collecting rich data. According to John (2012:75) convenience sampling is used mainly because of the geographical proximity. Mont Rose has four levels – Year 1 to 4. The focus of the study is an attempt to validate Moletsane-Kekae's (2004) study which involved learners aged 14 years. For this reason, Year 1 Class was chosen as the appropriate level for the study. Six learners were selected on volunteer basis.

3.5 Selection of participants

The recruitment of the learners began with a formal announcement by the principals during morning assembly informing the learners about the study and the need for them to participate in it. The principal highlighted that to qualify for participation in the study the volunteers must be male or female, aged 14 years, lives in the township, speaks isiXhosa as Home Language, had no record of neuropsychological disorder, and had not been exposed to Rorschach inkblot previously. The Life Orientation (L.O) teacher encouraged learners to volunteer for participation in this study. Six learners comprising of three boys and three girls willingly volunteered to participate. Therefore, the sampling strategy employed is non-random purposive sampling. Cozby (2005:142) describes purposive sampling as a specialized form of non-probability sampling generally used for qualitative research, particularly to achieve validity and reliability. Applying purposive sampling in a study that aims to determine the response of adolescents from a previously disadvantaged community in the Western Cape also complies with the tenets of critical psychology and indigenous psychology, two theories that inform this study. The next section presents the profile of the six purposively selected participants.
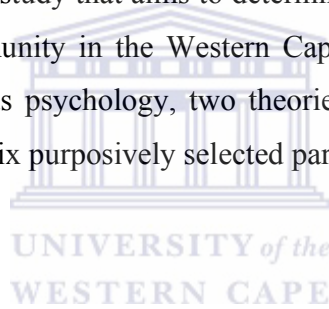
Table 3.1 Selection of participants

Participants	6 learners
Gender	3 boys and 3 girls
Age	14 years old
Race	South African from African origin
Languages	IsiXhosa (mother tongue of the participants)
Criteria of selection	Convenient and purposeful sampling
Background	Previously disadvantaged area
Recruitment	L.O. teacher
Psychological test	Never exposed

3.6 Participants' background information

This section provides the background details of the six participants. However, the researcher and the isiXhosa interpreter required the participant's background and important information by using unstructured and semi-structured interviews and from the biographical form (see in appendix 2).

Participant 1

Polonto is a female. She lives in the urban area of Khayelitsha with her family, comprising of her father, mother and five siblings; but, she does not know the educational level of her parents. Her father is driver at the VW Company in Cape Town, whereas her mother is a cleaner in a company. Her parents support her and other siblings and her grandparents. She describes their living condition as 'good'. The house they live in has electricity and pipe-borne water supply. She describes the family relationship as 'good'. Polonto explains that she does her homework during her free time and after school. When asked about her future career, she does not provide an answer; however, she maintains that she would like to achieve her dream.

Participant 2

Mwana-sasa is a female living in a family of ten, comprising her father, mother, brothers, and sisters. They live in the urban area of Kayelitsha. Mwana-sasa describes their living conditions as good; their house has electricity and water. She does not know the education background of her parents. When asked the occupation of her parents, she replies *"Akaphangeli"* meaning 'No job'. She said her father supports her education and provides all her needs. Concerning her mother's involvement in her education, she stated, *"Nydithengela impahidhla uyandicebisa ulsubandsipha the kakunte"*, which means she buys her clothes and gives her useful pieces of advice. Mwana-Sasa said their family has a good relationship.

Participant 3

Muyomba is a female learner. She lives with her parents in the urban area of Khayelitsha. When asked about the other members of the family, she replied, *"Sisi wam, no bhuti nabanye abantwana basekhaya ababini abeza emuvakwan"*, meaning 'my sister, brother, other two siblings and come after me'. She does not know the educational background of her father and mother. Her father is a bus driver and her mother is a cleaner. The family live in a good house and they can afford their basic needs. Muyomba mentioned that her family has a good relationship, *"Sinobu dielwane obamnandi siyavana"*. Concerning her father's involvement in her education, she stated, *"asinabudielane kwaphelo kodwa siyazana"* meaning 'We don't have a relationship at all; but, we know each other'. On her mother's involvement in her education, she said, *"unewoyile uadithengela"* meaning 'She supports me'. Concerning her activities after

school, she said *"Bukela TV"* (watching TV), and her homework. About her future careers, she said "*ndifuna ukubaliqhwetha*", meaning 'I want to be a lawyer'.

Participant 4

Mwanza-Mani is male. When asked where he lives, he lives in the urban area *"ihlala no makhuly nomntana wasekhaya oyitombi ano 3"*, meaning that he stays with his mother with his three years old sister and his grandmother. Mwanza-Mani said that his father is alive, has a matric, and is a truck driver for municipality in Gauteng. Concerning his father's involvement in his education, Mwanza-Mani states, "Supportive. I have good communication with him. During the holiday I visit him every year." Mwanza-Mani does not know the educational background of his mother. When asked about the occupation of his mother, he replied *"akaphangeli"*, meaning 'she does not work.' He also stated, *"ndimbona yonke imihla undenzela zonke izinto endizifunayo"*, meaning 'I see her every day and she does everything for me.' Concerning the family relationship, Mwanza-Mani stated, *"kumnandi endlini kuba sihlala sincumile xa ufuna into bayakuzamela kangangoko banako"* meaning 'It is nice to be at home because when you need something they try and provide it'. The family can afford their needs. Regarding their living conditions, Mwanza-Mani said, *"sihlala kwindlu yesitena amanzi nombane zikhona"* meaning 'We live in a brick house with electricity and water supply.' Concerning his activities after school, Mwanza-Mani stated, *"ndithanda ukuya kwi swimming ndidlale no bhola* (I like swimming and football); *ndi hlamba izinto zam zesikolo, ndenze umsebenzi wam wesikolo ndihambe ndiyokudlala ibhola"* meaning 'I wash my school clothes, doing homework and then go and play soccer.' Regards to his future career, Mwanza-Mani declared, *"ndifuna ukuyi professional swimmer sesona sport ndisithandayo"* meaning 'I love swimming so I want to be a professional swimmer'.

Participant 5

Mukubwa-Obende is a male learner. He resides with his mother and an elder sister in Khayelitsha town. Mukubwa-Obende says that his father is alive, but he does not know him. He is unable to give an account of his father's educational background and occupation. His mother is a cleaner but he has no idea of her educational background. Concerning her mother's involvement in his education, Mukubwa-Obende mentions that his mother is deeply involved in

his education. She provides his needs. He describes their living condition as good. They live in a house with water and electricity. Concerning their economic status, he describes his family as a middle income family. He enjoys playing soccer after school. When asked about his future career, he is unable to give an answer. Concerning his knowledge of psychological test, Mukubwa-Obende declares that he has no knowledge of psychological tests and has not been exposed to any.

Participant 6

Kamalamba-Mabe is a male learner. He lives with his parents and an elder brother in Khayelitsha urban area. His father is a clerk his mother is a domestic worker, but he does not know their educational backgrounds. Kamalamba-Mabe said that his father and mother are supportive and deeply involved in his education. He said they live a middle income life and reside in a good house with water and electricity. He states, "My parent do every-things for us." His activities after school include soccer, reading, and cleaning the house. Concerning his future career, Kamalamba-Mabe declares, "I want to be a fire man." School attendance record shows that he is absent from school five times from January to August. His assessment record indicates as follows: Mathematics 65%; English 58%; isiXhosa 17%. He had a good handwriting and keeps his exercise books and other school materials clear and orderly. When asked if he has knowledge of psychological test, Kamalamba-Mabe said "No".

3.7 Methods and Procedures of the data collection

In order to collect the data from the six participants, I decided to use multiple instruments. The instruments include Rorschach Inkblot, adjusted Rorschach Comprehensive System administration procedure, biographical form, semi-structured interviews, observation, and field notes. Details on instruments and the procedures of data collection are provided below.

3.7.1 Rorschach Inkblot test

Rorschach Inkblots, developed by Rorschach (1921), consists of ten cards, usually numbered in Roman figures I (One) to X (Ten). Each card is unique in terms of content and the responses that it evokes. Details of the cards and their content are described in Figure 3.

Card No.	Description
I	Subjects usually inquire on how they should proceed with the test. Being the first card, it provides clues about how subjects tackle a new and stressful task. It is not, however, a card that is usually difficult for the subjects to handle, having readily available popular responses.
II	The red details of Card II are often seen as blood, and are the most distinctive features. Responses to them can provide indications about how a subject is likely to manage feelings of anger or physical harm. This card can induce a variety of sexual responses
III	Card III seemingly contains two humans involved in some interaction, and probably gives information about how the participants relates with other people (specifically, response latency may reveal struggling social interactions).
IV	Card IV is remarkable for its dark colour and its shading, posing difficulties for depressed participants. The card is generally perceived as a big and sometimes threatening figure; compounded with the common impression of the person being in an inferior position ("looking up") to it, this serves to elicit a sense of authority. The human or animal content seen in the card is almost invariably classified as male rather than female, and the qualities expressed by the subject may indicate attitudes toward men and authority. It is these qualities that earned Card IV 'The Father Card.'
V	Card V is an easily elaborated card that is not usually perceived as threatening, and typically instigates a "change of pace" in the test, after the previous more challenging cards. Containing few features that generate

	concerns or complicate the elaboration, it is the easiest blot to generate a good quality response about.
VI	Texture is the dominant characteristic of Card VI, which often elicits association related to interpersonal closeness; it is specifically a "sex card", its likely sexual percept being reported more frequently than in any other card, even though other cards have a greater variety of commonly seen sexual contents.
VII	The can be associated with femininity (the human figures commonly seen in it being described as women or children), and function as a "mother card", where difficulties in responding may be related to concerns with the female figures in the subject's life. The center detail is relatively often (though not popularly) identified as a vagina, which makes this card also relate to feminine sexuality in particular.
VIII	People often express relief about Card VIII, which lets them relax and respond effectively. Similar to card V, it represents a "change of pace"; however, the card introduces new elaboration difficulties, being complex and the first multi-colored card in the set. Therefore, people who find processing complex situations or emotional stimuli distressing or difficult may be uncomfortable with this card.
IX	Card IX is indistinct form and diffused, muted chromatic features, creating a general vagueness. There is only one popular response, and it is the least frequent of all cards. Difficulty to process this card may possibly indicate trouble dealing with unstructured data.
X	Card X is structurally similar to card VIII, but its uncertainty and complexity are reminiscent of card IX: people who find it difficult to deal with many concurrent stimuli may not particularly like this otherwise pleasant card. Being the last card, it may provide an opportunity for the subject to "sign out" by indicating what they feel their situation is like, or what they desire to know.

Figure 3 Description of the Inkblot developed by Hermann Rorschach (1921) (see appendix 1)

3.7.2 Adjusted Rorschach Comprehensive System (ARCS) administration procedure

The ARCS procedure for administering the Inkblot, shown on Figure 4, is adapted from Moletsane-Kekae (2004).

Phases \Stages	Explanation
Presentation Phase (P-Phase)	The researcher makes the participants feel free by being friendly, greeting them and introducing himself. He also explains the seating procedure, and he lets the participants choose freely the place where they prefer to sit.
Re-Emphasizing Phase (RE-Phase)	The researcher makes sure that the participants understand the procedure, and he explains the instructions at least twice. And then he repeats or re-emphasizes the test's instruction. He allows the participants to ask questions if they are still not certain of what to do with the cards.
Preliminary Response Phase (PR-Phase)	**Language problem**: The participants, who were unable to stick to their mother tongue (Xhosa) when giving responses. They can use concepts borrowed from Xhosa, or other African languages.
	Difficulty with concepts: The participants have difficulty relating their answers in any of the languages. The researcher reacts by supporting them to explain the image in question or even draw it. He can help them to identify the image.
Inquiry Phase (I-Phase)	During inquiry, some of the participants could not remember what their initial responses. However, the inquiry can be conducted immediately after each card has been responded to.
Re-Inquiry (RI-Phase)	If the participants give less than fourteen responses (R<14), or fail with cards where one response has been given, the researcher explains to them that they will go through the cards again.

Figure 4 A model of ARCS administrative procedure developed by Moletsane-Kekae (2004).

3.7.3 Biographical information

Biography is originated in the tradition of the interpretative paradigm (Thomas & Znaniecki, 1918 in Apitzsch & Siouti, 2007:3) and constructive paradigm of the social reality, knowledge and experiences life of subjects (Fischer-Resenthal & Resenthal, 1997 in Apitzsch & Siouti, 2007:5). In this study, the researcher develops a biographical form to elicit biographical data from their participants. As a research instrument for collecting data, the researcher constructs a biographical form in such a way that this reflects the relationships between history knowledge and experiences life of the participants. There is reasonable before developing this research biographical form, the researcher addresses the following questions: What are the aims of biography? Who is to be surveyed as participant? How the participant is produced the identity in his home language (isiXhosa)? What is the nature of information the researcher need to get from him/she? Is the information to be built the sufficient nature of his/her life history? These questions enable the researcher as a design to planning the content of biographical form.

After this process, the researcher takes consideration only relevant and valid questions because it can illuminate information data that is reliable and easily responded by participants. As biographical form developed, the researcher maintains the following characteristics: the identity of the participant (name, surname, birth date, parent information, date of assessment), the selection of criteria of participant (age, sex, grade, language, school's name, test exposure), the family relationship, the insight about how participants think, about their life experience, future, activities after school, living conditions, and what they reflect in this issue.

Finally, the biographical form was administered in print form. Then researcher and translator proceed by semi-structured interviews to participants and complete it before the administration of the ARCS. The information from biographical form helps the researcher to establish the background and life experience information of the sample and it allows him to extract the language profile of participants which is a relevant factor in this study. A sample of the biographical form is provided in Appendix 2.

3.7.4 Observation

Observation involves systematic recording of observable phenomena or individual's behaviour in a natural setting (Gorman & Clayton, 2005). According to Maree (2007:84), observation enables researchers to gain a deeper insight and understanding of the phenomenon being observed. Observational method can be employed as structured observation or unstructured observation (Pretzlik, 1994 in Mulhall, 2003:306). Structured observation is connected with the natural science paradigm and purposed to produce measurable, valid, reliable, and quantifiable data. Conversely, unstructured observation is used to understand and interpret cultural behaviour (Schuh & Upcraft, 2001; Mulhall, 2003). The motive of choice of each method depends on the research questions defined. For this study, unstructured observation was used to collect data about the characteristics of the school and its neighbourhood, materials used by the participants for school work, and the behaviours exhibited by the participants while responding to ARCS including surprise, refusal, happy, eye contact, and repletion of concept. For this study, observation augmented interview, because observation collects data on actual and first-hand experience of the participant (Sharma, 1997:175) and to see things that participants themselves are not aware of, or that they are unwilling to discuss (Patton, 2000 in Miranda, 2011:2104).

According to Wilkinson and Birminghan (2003:135), field notes are an expanded account of all kinds of information the researcher might obtain during an interview session and which he assembles after the event. The researcher takes detailed notes of participant's behaviour at the setting while observing and interviewing the participants (Moletsane-Kekae, 2004). During the administration of the Inkblot, the researcher used field notes to record the participants' behaviours, such the hesitation, uncertainty, fear, smiling, silence, and refusal as they occurred. The researcher also recorded the time interval from presentation of card to initial response and the time spent by the participant on each card, and the position of the cards when the responses are given. Loosli-Usteri (1929) provides the symbol for the different positions of the cards, as follows: > indicates top of card is to the right; < indicates top of card is to the left; @ indicates that the card has been turned several times; ^ indicates that the card has been turned so that the top is gain in the upright position; and v indicates top of card is at the bottom. A sample of the Observation field Notes is provided in Appendix 3.

Figure 5 Framework of the process of data analysis and interpretation

Step 1 Knowing/ focusing the data	Step 2: Data coding	Step 3 Identifying themes, subthemes, and connections	Step 4 Analysis & Interpretation
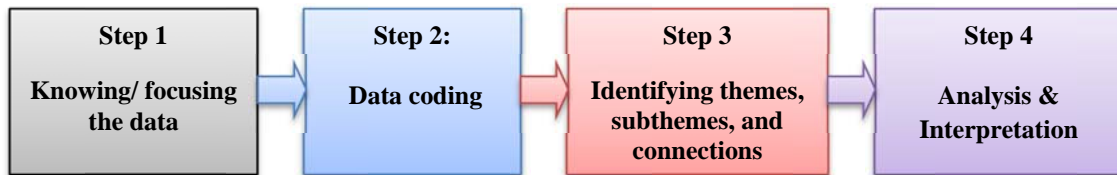
The figure 5 which is the framework of the process of data analysis and interpretation, gives an overview of the data analysis and interpretation of the study. The framework involves four distinct steps, which are knowing/focusing the data, data coding, identifying themes, subthemes and connections, and analysis and interpretation. These steps are discussed below.

3.8 Data Analysis

The analysis of qualitative data involves organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants' definitions of the situation, noting patterns, themes, categories and regularities (Cohen, Manion & Morrison, 2010:461). Caudle (2004:13) contends that qualitative analysis involves making sense of relevant data collected from sources including interview, on-site observations, and documents and then responsibly presenting what the data reveal. According to Patton (2002:431), the analysis makes clear what is most important to the study. Prior to analysis, Jackson (2012:91) suggests that the researcher should reading through the notes taken and trying to conceptualize from data. During this stage the researcher is looking for patterns in the data; code the data by organizing it into conceptual categories. In additional the researchers attempt to create themes or concepts as suggested by Jackson (2012:91).

3.8.1 Thematic analysis

The data collected from the participants were mainly text data and they were collected through semi-structured interviews and direct observation. The thematic approach was employed to analyze the data from the six participants. Braun and Clarke (2006:79) define thematic analysis as a technique of identifying, analyzing, and reporting themes within data. Ritchie and Lewis (2003) note that the thematic approach is a method for classifying and organizing data according

to key themes and categories. According to Braun and Clarke (2006), thematic analysis is beneficial in qualitative research because it helps the researcher to search for patterns (themes) and make connection to perspectives emerging from the data. More specifically, the researcher hoped to identify categories, themes, and patterns of the background details of participants. He managed behavioural observation in subthemes such as surprise refusal, happy, eye contact, repetition of concept. The number of responses categorized in subthemes including more than 14 responses, less than 14 responses, and average responses. He classified the characteristic personalities of participants when administered the Adjusted Rorschach Comprehensive System (ARCS). More detailed information on the data analysis techniques is provided in the relevant chapter in this study.

3.9 Data Interpretation

Guest, MacQueen, and Namey (2012), Taylor-Powell and Renne (2009), Bazeley (2009), and Miles and Hubermann (1994) maintain that qualitative analysis involves reading through text data, identifying themes in the data, coding those themes, and then interpreting the structure and content of the themes. Kerlinger and Lee (2000:192) state that interpretation takes the results of analysis, makes inferences pertinent to the research relations studied, and draws conclusions about these relations. Ritchie and Lewis (2003 in Maree, 2007:111) suggest that during data interpretation, the qualitative researcher may engage in defining concepts, mapping the range and nature of phenomena, creating typologies, finding associations with the data, providing explanation or developing strategies. Through interpretation the researcher relates links the results of the study and draws conclusions.

3.10 Ethical Considerations

Fouka and Mantzorou (2011) define ethics in research as all actions taken by the researcher to ensure the protection of dignity of subjects and the publication of the information in the research. Fouka and Mantzorou (2011:4-7) list ethical issues in research as follows: informed consent, no harm, anonymity and confidentiality, privacy, vulnerable group, and skills of the researcher.

3.10.1 Privacy, Confidentiality, and Anonymity

Babbie (2005) described privacy as the identities research participants, which should be protected through confidentiality and anonymity. Taking to this consideration, the privacy of the participants was respected, as they were not forced to provide information. Prior to data collection the researcher had a brief meeting with the participants and informed them that they have right to withhold any information that they do not wish to disclose. The participants were also told that they have right to withdraw from the study at any time they do not feel comfortable to continue in it. For the purpose of anonymity and confidentiality, pseudo-names were used in places of the actual name of the school and also for the participants. The researcher stored the data in a separate folder his personal computer which is accessible to him only. Text data were kept in a box under lock and key. It is only the researcher that has access to the key.

3.10.2 Informed consent

Prior to data collection, the researcher obtained ethical clearance from the Director of Research Services. Approval was also obtained from the Western Cape Education Department (WCED) for access to the school selected for the study. In addition, approval was also obtained from the principal of the school for access. Collected data were kelp confidential.

Voluntary Participation and Free consent

Considering the participants were aged 14 years, the researcher secured the consent of their parents for their participation in the study. The researcher ensured that the process of data collection did not disrupt normal school programmes and activities, and did not inflict physical or psychological harm to the participants.

Copies of the ethical clearance notification, authorisation from WCED, approval note from the school principal, and consents letters of participants and their parents are provided in Appendices 4, 5, 6, 7 and 8, respectively.

3.10.3 Protection from harm

Ethics pertains to doing well and avoiding harm, can be prevented and reduced through the application of appropriate ethical principles (Orb, Eisenhauser, & Wynaden, 2001). As this study regarded learners form disadvantaged community; the researcher ensured that he respected the human rights of the participant during the interviews process as the study deals with a sensitive and emotionally issue. Furthermore, the participants should be referred to a school counsellor or on- side psychologist if needed.

CONCLUSION

In this chapter, the methodology employed in the administration of the Adjusted Rorschach procedure has been discussed. The study employs a combination of interpretive and constructivist paradigm using qualitative approach. The sample consists of six (6) learners (3 boys and 3 girls) selected with non-probability sampling. Each participant was regarded as a case; hence the study employed multiple cases design. The main research instrument is the Rorschach Inkblot test and the procedure of administration was the adjusted procedure developed by Moletsane-Kekae (2004). Data relating to background details of the participants were collected mainly with semi-structured interview, whereas data relating to the administration of the Inkblot were collected through direct observation of the participants in action. The responses were recorded in the field notes. Ethical issues such as permission for access, confidentiality, and anonymity were abided to. The evaluation of quality criteria of trustworthiness, credibility, applicability, dependability, conformability, reflexivity and triangulation was employed to achieve validity and reliability. The next chapter is the presentation, analysis, and interpretation of results.

OOO

CHAPTER 4

PRESENTATION OF DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

The previous chapter discussed of the empirical research including methodological framework, case study design, research site, sampling and sample, selection of the participants, and framework of data analysis and interpretation. In this chapter, the researcher explains the process of data analysis and interpretation.

4.2 Data analysis

According to Levine 1996), data analysis is a body of method that helps to describe facts, detect patterns, and develop explanations and hypothesis. In this study the data will be analyzed by means of thematic analysis.

4.2.1 Thematic Analysis

This study applies a thematic analysis procedure to analyze the data collected from the participants' unstructured and semi-structured interviews, unstructured observations, ARC responses, and Field notes. Thematic analysis is a technique used to identify, analyze, and report themes within data (Braun & Clarke, 2006:79). This technique is beneficial in qualitative research in that it seeks for patterns (themes) and connects them to a perspective epistemology. Thematic analysis is also a flexible approach to analyzing qualitative data (Alhojailan, 2012), that is, it can be used within different frameworks to answer quite different types of research questions and to clearly connect the research objectives to the conclusion of the study.

In this study, the researcher hopes to identify themes deriving from the factors that influenced the Adjusted Rorschach Comprehensive System (ARCS) when administered to learners from a previously disadvantaged school. The researcher is expected to demonstrate objectivity and sensitivity during data analysis.

4.3 Administration of ARCS to the participants

The researcher made the participants to feel free and relaxed, and considered their ARCS responses and reactions during the ARCS. The information was collected through observation, unstructured and semi-structured interviews. Later, the information was arranged into themes which are related to the study as presented in table 4.1.

Table 4.1 Themes and subthemes

Themes	Subthemes
Previous exposure or experiences to psychological test	• No
Seating procedure	Seating preferences • side-by-side
Phases of ARCS procedure	-Presentation Phase (P-Phase) • Introduction • Explanation of Rorschach test • Presentation of inkblot -Re-Emphasizing Phase (RE-Phase) -Preliminary Response Phase (PR-Phase) -Inquiry Phase (I-Phase) -Re-Inquiry Phase (RE-Phase)
Behavioural observation	-Reactions during ARCS administration • Surprise • Happy • Relaxed • Refusal • Eye contact -Reactions during Inquiry and RE-Inquiry
Languages usage	Less other language (English) More home language (isiXhosa)
Strategies to acquire concepts	• Description • Drawing • Viewing/seeing
Number of ARCS responses	• More than fourteen responses (R>14) • Less than fourteen responses (R<14) • Average of responses

4.4 Analysis of themes

Theme 1 Exposure and experience of the test

Test exposure is regarded as the knowledge of any psychological test, and the previous experience of testing procedure (ARCS) (Moletsane-Kekae, 2004). However, in this study, all the participants had not been previously exposed to psychological tests.

Theme 2 Seating procedure

The participants were neither prescribed nor instructed where to sit during the administration of the ARCS. They were free to sit where they would feel more comfortable. All the six participants chose the side-by-side rather than the face-to-face and catty corner seating arrangements. In other words, they sat either between the researcher and the translator, or on their right or left side.

Theme 3 Stages or phases of ARCS administration procedure

During the ARCS procedure, the researcher gave the instructions in English and this was translated in isiXhosa by the interpreter. The researcher presented the ARCS test instructions according to Moletsane-Kekae (2004) suggestions as indicated below:

Presentation Phase (P-Phase)

This phase aims to introduce the researcher to the participants in order to comprehend the procedure of the ARCS.

INSTRUCTIONS

Introduction: The researcher makes the participants to feel free by being friendly, greeting them and introducing himself: "Good Afternoon, My name is (…), I am not a teacher, school counsellor or school inspector, but I am a researcher, a Master's student. I am doing my research with people in order to know them better. Today I am looking forward to working with you. After the session I wish to know you better".

The researcher and the translator greeted each participant before the test was administered to them and they introduced themselves as suggested by the ARCS aforementioned procedure. They made the participants feel comfortable as shown in the instructions below.

INSTRUCTIONS

Explanation of Rorschach test: *"Please be relaxed and feel free to choose a place where to sit. This test is different from a typical school test; it cannot affect your school performance. There are no correct or incorrect answers. This test will allow me to get an idea of how you see things around your environment. Your answer will help me to know you better".*

All the participants were relaxed after the researcher had thoroughly explained the test and its aim. The participants' mood motivated the researcher to introduce the inkblots to them.

INSTRUCTIONS

Presentation of inkblots: *"I am going to show you ten cards. I will start with the first one and I want you to tell me 'What might this be' or 'what could this mean to you'. I will show you all the cards one by one".*

The participants listened carefully when the inkblots were presented to them. Some of them were nodding to show that they had understood the explanations.
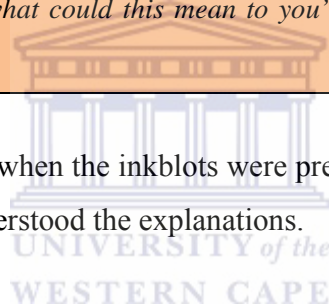
Re-Emphasizing Phase (RE-Phase)

This phase was meant to ensure that all participants had grasped the procedure and instructions:

INSTRUCTIONS

- *"I have just said that I am going to show you 10 cards, I will start with the first one. I want you to tell me 'what this might be?' After I have given you a card, you must please tell me what it might be. Do not feel embarrassed to tell me your answer because there is nothing embarrassing to me".*
- *"Do you understand? Please feel free to ask me any question before we start".*

After the researcher had repeated the explanations, the rest of the participants also acknowledged to have understood the ARCS procedure. It is only then that the researcher proceeded to the preliminary response phase.

Preliminary Response Phase (PR-Phase)

This phase allowed the participants to hand the cards and start respond to the inkblot. The following instructions were given to them.

INSTRUCTIONS

"Now you have a card and you know it is only an inkblot. You can touch it and turn it as you wish. Decide what you think it may be. Do not worry about the correctness or incorrectness of the answers and feel free to use any language". Feel free to say anything even if it seems embarrassing to you, because to me it is not. If you do not know the correct word to use, you can:

- Describe what the inkblot might be or,

- Simply draw what might it be. I will discuss the drawing with you until we get the relevant word or name of your drawing or,

- Look around you and show me what it might look like".

During the preliminary response phase, one participant gave less than 14 responses. This led the researcher to resort to the above strategies which, according to the ARCS, normally motivate participants to provide as many responses as they can. The next subsection deals with the inquiry phase.

Inquiry Phase (I-Phase)

This phase encourages the participants to give more responses to the ARCS procedure. In this study, during the inquiry, some of the participants could not remember what their initial responses were. Therefore, the researcher gave them the following instructions.

INSTRUCTIONS

- *"I have just read your initial response. Relax and take your time before you show me where on the card, you saw what you said, so that I can see it just like you did.*
- *Please ask questions if you are not sure of what you are supposed to do".*

In this phase, all the participants indicated that they understood the instructions provided to them.

Re-Inquiry (RI-Phase)

This phase helps the participants to extend the responses.

According to ARCS, the researcher should do the following instructions:

INSTRUCTIONS

- *Researcher should count the responses*
- *If the participants give less than fourteen responses (R<14), or fail with each card where one response has been given, the researcher should explain to them that they will go through the cards again.*
- *The participants must feel free to describe, draw, show or point at what it might be if they do not know the correct word".*

In this study, only one participant gave less than 14 responses. The researcher asked the participant to describe, draw or show or point out what might it be, but she kept on saying "I don't know".

Theme 4 Observation during the ARCS administration procedure

During the ARCS administration procedure, the following reactions were observed:

-Reaction during ARCS administration

1. **Surprised**

Two out of the six participants were surprised when the cards were handed to them. For example, Polonto and Muyomba were extremely surprised when the first Rorschach's card was handed over to them.

2. Happy

Some of the participants smiled during the ARCS procedure. However, Polonto, Mwanza-Mani, Kamalamba-Mabe smiled and manifested the feeling of happiness every time they saw a new card. They also showed the feeling of readiness for the test.

3. Relax

Most of the participants were relaxed during the administration procedure. However, Polonto, Mwanza-Mani, Mukubwa-Obende, and Kamalamba-Mabe were relaxed all through the ARCS process. They were comfortable during ARCS administration test.

4. Refusal

Only one of the six participants refused to provide answers on some of the cards. For example, Mwana-Sasa did not provide any answer to card VII and IX (she lifted her shoulder and said: *i Andiyazi* (I don't know).

5. Eye contact

Regarding eye contact, it could be seen that all the participants did not have eye contact with the researcher and translator. During the test, for example, Muyomba puts her face down. Mwanza-Mani closed, opened his eyes repeatedly and touched his chins, and scratched his nose before answering any card question.

-Reaction during Inquiry and RE-Inquiry

The inquiry phase is important during the ARCS procedure as it allows the researcher to have a good understanding and explanation of the responses. In this study, the researcher went through the inquiry immediately after the participants had responded to each card. All of the six participants were immediately conducted to inquiry. The researcher reminded them about their statements in order to provide more responses, while one participant did not give any response to the cards VII and IX despite the re-inquiry.

Theme 5 Language usage during ARCS administration

It was found that the participants used their home language, and they sometimes mixed languages. The researcher realised that the participants were more comfortable and could provide

sufficient responses in their home language (IsiXhosa). However, all the six participants mixed their home language and some English concepts. For example, Polonto used in card VIII (*ubuso be elephant*: face of elephant). Muyomba and Mukubwa-Obede used *imask* (mask) in card I. Mukubwa-Obede, Mwanza-Mani and Kamalamba-Mabe mentioned *isa South Africa map* (map of South Africa), and *zi carrot* (carrot), *igazi yi heart* (blood of heart), *lizimu ipaint* (split paint) on card I, II, III, IX.

Theme 6 Strategies to acquire concepts

In this this study, only one participant, Mwana-Sasa gave less than fourteen responses; she did not want to provide any more responses despite these strategies. She was therefore asked to use the three strategies recommended in ARCS procedure namely description, drawing and viewing/seeing in order to provide more responses.

Theme 7 Number of ARCS responses

The number of responses provided by each participant should at least be fourteen. In this study, five out of the six participants gave more than fourteen responses, whereas Mwana-Sasa gave less than fourteen.
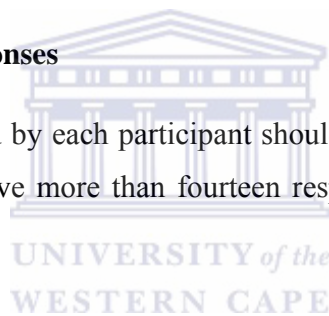
The following participants gave 14 or more responses are:

Participant 1 POLONTO
Polonto's responses to the cards are as follows:
Ibhabhathane (a butterfly) (Card I, X)
Inkukhu (a chicken) (Card II, V)
Umuntu (a person) (Card II, III, V, IX, X)
Impuku (rat) (Card III, X)
Isilevu, intamo, umlomo (chin, neck, and mouth) (Card III)
Inyoka iyashukuma (a snake in motion) (Card IV, VI, X)
Ubuso babantu (a person's face) (Card VII)
Ubuso be-elephant (an elephant's face) (Card VII)
Intlanzi (a fish) (Card, VIII)

Nyama ebomvu (red meat) (Card IX)

Ikati (cat) (Card IX)

The ARCS responses made by Polonto to the ten Cards are as follows:

Table 4.2 Polonto ARCS responses

Card No.	1	2	3	4	5	6	7	8	9	10	Total	Average per card
ARCS responses	1	2	2	1	2	1	2	2	3	4	20	2.0

Polonto provided the least number of ARCS responses on Cards I, IV, and VI with one response each; whereas she produced the highest number of responses on Cards IX and X with three and four responses respectively. Polonto spent fourty minutes to describe the ten cards, which means that she spent an average of four minutes per card. Spending seven minutes on cards IX and X, respectively, shows that the she had a lot of information to give on the two cards. Her response rate provided in the earlier section indicates that she provided the highest number of responses of Cards IX and X. In total Polonto provided twenty responses from the ten cards. Therefore, Polonto's average response was 2 responses per card.

Participant 3: MUYOMBA

Muyomba's responses to the cards are as follows:

Imask (a mask) (Card I)

Umntu (a person) (Card I, III, VII, IX)

Amaphiko (wings) (Card I, VII)

Igazi (blood) (Card II, VIII)

Izandla (hands) (Card II, IV)

Izinja ezibalekayo (running dogs) (Card II)

Inwele (hair) (Card II)

Bhabhathane (a butterfly) (Card V)

Hobe (a bird, pigeon) (Card V)

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Imfene elwayo (fighting monkey) (Card III)

Impondo (horns) (Card III, V)

Amanzi (water) (Card III)

Ikati (a cat) (Card III)

Intshebe (beard/moustache) (Card IV)

Isebe lomthi (a branch of a tree) (Card IV)

Iinyawo (legs) (Card VI)

Umlomo (mouth) (Card VI)

Amagqabi (leafs) (Card VI)

Skolpati (tortoise) (Card VI)

Isiphongo (forehead) (Card VII)

Gusha (sheep) (Card VII)

Umsila (tail) (Card VII)

*Ingonyama (*a lion) (Card VIII)

Indlovu (an elephant) (Card VIII)

Isisu (Stomach) (Card IX)

Ithanga (a thigh) (Card X)

Isele (a frog) (Card X)

Intanka (a bird) (card X)

Inja (a dog) (Card X)

Ingcongconi (a mosquito) (card X)

Intlanzi (a fish) (Card X)

The ARCS responses made by Muyomba to the ten Cards are as follows:

Table 4.3 Muyomba ARCS responses

Card No.	1	2	3	4	5	6	7	8	9	10	Total	Average per card
ARCS responses	3	4	5	3	3	4	4	3	2	6	36	3.6

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Muyomba provided 36 responses from the Inkblot. She gave two responses on Cards IX, three responses on Cards I, IV, V, and VIII; four responses on Cards II, VI and VII; five responses on Card III; and six responses on Card X. therefore, her responses are high on Cards II, III, VI, VII, and X; and low on Card IX. By completing the Inkblot in sixty minutes means that Muyomba spent an average of six minutes on each card with an average of 3.6 responses per card.

Participant 4: MWANZA-MANI

Mwanza-Mani's responses to the cards are as follows:

South Africa ni Island map (maps of South Africa and Island) (Card I)

Ibhabhathane (a butterfly) (Card I, IV)

Umfanekiso wonke mask (a mask) (Card I)

Sisigcawu kuba siyabonakala (a spider) (Card I, III, X)

Inagthi zi carrot (carrots) (Card II)

Mpuku (a rat) (Card II, X)

Ingathi inegazi yi heart (blood of heart) (Card II, III, VI, VII)

Umntu (a person) (Card III, VII, IX)

Mfanekiso wonke ngathi lizimu, ipaint (split paint) (card IX)

Amaphiko (wings) (Card IV)

Mfankiso ilulwane (a bat) (Card V)

Umefanekiso wonke springane (a Springbok) (Card V)

Umfanekiso ifele legusha (a skin of sheep) (Card VI)

Intaba (a mountain) (Card VI)

Amanzi (water) (Card VI, IX)

Inkuku (chicken) (Card VII)

Intlanzi (a fish) (Card VIII, X)

Icikilishi (a lizard) (Card VIII)

Ibheji yeesikolo (a school badge) (Card VIII)

Imfene ezingyuka (a monkey) (Card X)

The ARCS responses made by Mwanza-Mani to the ten Cards are as follows:

Table 4.4 Mwanza-Mani ARCS responses

Card No.	1	2	3	4	5	6	7	8	9	10	Total	Average per card
ARCS responses	4	3	3	2	2	4	3	3	3	4	31	3.1

Data presented on Mwanza-Mani's responses to the Inkblot suggest that he provided thirty-one responses on the Inkblot content, with an average response of 3.1 responses per card. His highest responses were on Cards I, VI, and X. The researcher wishes to mention that this participant was sitting closer to the translator whom he was familiar with. However, he was feeling some sense of anxiety as he was squeezing his fingers repeatedly. He spent an average of six minutes per card. He was worried whether the test had other motives besides what he was told.

Participant 5: MUKUBWA-OBENDE

Mukubwa-Obende's responses to the ten cards are as follows:

Umuntu (a person) (Card I)

Stick to hold mask (Card I)

Imephu yomzantsi Africa (the map of South Africa) (Card II, III, IX)

Impiko (wings) (Card II, IV, V, VI)

Intloko yomntu (a person's head) (Card III),

Ifele lenyamazana (skin of a dead animal) (Card IV, VI)

Intyatyambo (a flower) (Card IV)

Bhabathane (a butterfly) (Card V)

Inyawo zentaka (bird's legs) (Card V)

Intaba (a mountain) (Card V)

Intonga (a stick) (Card VI)

Ingalo (an arm) (Card VI)

Ifana nentliziyo (a heart shape) (Card VI)

Umvundla (a rabbit) (Card VII)

Imbambo (ribs) (Card VII)

Inja (a dog) (Card VIII)

Isisu (a stomach) (Card VIII)

Intlanzi (a fish) (Card VIII)

Inyama (a meat) (VIII)

Impuku (a rat) (Card IX)

Ibhrorho (a bridge) (Card IX)

Umnyiki (a bug worm) (Card IX)

Ingentsu (a back of head) (Card IX)

Umlenze (a thigh) (Card X)

Isele (a frog) (Card X)

Intaka (a bird) (Card X)

Inja (a dog) (Card X)

Ingconconi (a mosquito) (Card X)

Intlanzi (a fish) (Card X)

The ARCS responses made by Mukubwa-Obende to the ten Cards are as follows:

Table 4.5 Mukubwa-Obende ARCS responses

Card No.	1	2	3	4	5	6	7	8	9	10	Total	Average per card
ARCS responses	2	2	2	3	4	5	2	4	5	6	35	3.5

Data presented on Mukubwa-Obende's response to the Inkblot indicate that he provided thirty-five responses in ninety minutes. He spent an average of nine minutes per card, with the highest response on Card X. His responses on Cards IV, V, VIII, and IX were high, but low on Cards I, II, III, and VII.

Participant 6: KAMALAMBA-MABE

Kamalamba-Mabe's responses to the ten cards are as follows:

Ibhabhathane (a butterfly) (Card I)

Isandla (hands) (Card VI)

Amaphiko (wings) (Card IV, V, VI)

Isa South Africa map (a map of South Africa) (Card I)

Umntu (a person) (Card II, III, IX)

Isisu (a stomach) (Card II)

Gazi (blood) (Card II)

Inyama (meat) (Card VIII, X)

Imbambo (ribs) (Card VIII, X)

Intliziyo (a heart) (Card III)

Isiporho (a ghost) (Card III)

*Amathambo (*bones) (Card III, VII)

*Inyawo (*legs) (Card IV, V)

*Imithi (*trees) (Card IV, VII)

*Ibhulukhwe (*trousers) (Card IV)

Buso benja (dog's face) (Card V)

Isigcawu (spider) (Card V, X)

Isisu (stomach) (Card V, VI, VII, IX)

Impundu (buttocks) (Card VI)

Ingonyama (a lion) (Card VII)

Intlanzi (a fish) (Card VII)

Umlenze (thighs) (Card VIII)

Ilwimi (a tongue) (Card VIII)

Ubuso (face) (Card IX)

Imphondo (a horn) (Card X)

The ARCS responses made by Kamalamba-Mabe to the ten Cards are as follows:

Table 4.6 Kamalamba-Mabe ARCS responses

Card No.	1	2	3	4	5	6	7	8	9	10	Total	Average
ARCS responses	3	3	4	4	5	4	4	4	3	4	38	3.8

Data presented on Kamalamba-Mabe's responses during the test indicate that he provided a total of 38 responses with at least three responses on each card. His highest number of responses was on Card V. Other cards where he provided a high number of responses include Cards III, IV, VI, VII, VIII, and X. He completed the test in seventy minutes. He spent an average of seven minutes per card.

1. **Participants who gave less than 14 responses**

As said previously, only one participant gave less than 14 responses to the 10 cards.

Participant 2: MWANA-SASA

Mwana-Sasa's responses:

Umuntu (a person) (Card I, IV)

Isibhakabhaka (a big space) (Card II)

Igazi (blood) (Card II, III)

Intake (a bird) (Card V)

Umgca (spine) (Card VI)

Andiyazi (I do not know) (Card VII, IX)

Umgca (a spine) (Card VIII)

Ingathi yindlu (a house) (Card X)
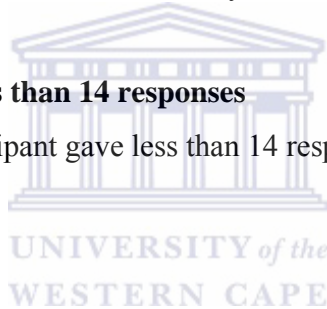
The responses made by Mwana-sasa to the ten Cards are as follows:

Table 4.7 ARCS Mwana-sasa responses

Card No.	1	2	3	4	5	6	7	8	9	10	Total	Average
ARCS responses	1	2	1	1	1	1	-	1	-	1	9	0.9

Mwana-Sasa's response to ARCS shows that though she had some negative attitude towards the test; however, she realised at the end of the assessment that the test was good. The summary of her responses in Table 4.8 indicates that Mwana-Sasa's responses to the cards were limited, except on Card II where she provided two responses. However, she respectively gave only one response to Card I, III, IV, V, VI, and X. She did not respond to Cards VII and IX. Her total response on the ten cards is 9 responses per card.

4.5 Checklist of the Data Analysis

The checklist below was developed to show the 6 participant's rate of responses, their seating arrangement during the ARCS procedure, their reactions during the ARCS and during inquiry and re-inquiry process, and their language used when providing responses.

Table 4.8 Data analysis checklist

Themes	Participants	1	2	3	4	5	6
Exposure and experience to test	Consulted a psychologist before (in the past)	-	-	-	-	-	-
Seating preferences	Face-to-face	-	-	-	-	-	-
	Side-by-side	x	x	x	x	x	x
	Catty-corner	-	-	-	-	-	-
Observation during ARCS procedure	Surprised	x	-	x	-	-	-
	Refusal	-	x	-	-	-	-
	Happy	x	-	-	x	-	x
	Relaxed	x	-	x	x	x	x
	Eye contact	-	-	-	-	-	-
Strategies to acquire concepts	Description	x	-	-	-	-	-
	Drawing	x	-	-	-	-	-
	Viewing /seeing	x	-	-	-	-	-
Inquiry phase	Inquiry	x	-	x	x	x	x
	RI-Phase	-	x	-	-	-	-
Language	Less other language	x	-	-	-	x	x
	More home language	x	x	x	x	x	x
Number of responses	More the 14 responses	x	-	x	x	x	x
	Less than 14 responses	-	x	-	-	-	-

4.6 Interpretation of the ARCS Administration procedure

4.6.1 Introduction

Miller and Brewer (2003) define data interpretation as a process by which meaning is attached to data. As Leedy and Ormrod (2010) argue, when researchers interpret data, they attempt to explain the patterns and trends uncovered through the analysis. Paton (2002:480) makes this clearer when he argues that, interpretation relates to the attachment of significance to the analysis. In the scope of this study, data interpretation relates to a conversion of the data collected and analyzed into credible evidence about the administration of the ARCS procedure to

learners from previously disadvantaged school in the Western Cape. The themes are therefore interpreted below.

4.6.2 Exposure and experience to psychological test

The findings from the study reveal that all of the participants were never been exposed, assessed, or consulted by a psychologist, or a clinician before. This may be due to the historical of background of the Republic of South Africa where education for the black people was inferior. This view appears to echo in Clark and Warger (2004)'s argument when they indicate that during apartheid era, Bantu Education was considered as an inferior education system for black people. Clark and Warger (2004) further emphasise on the functional value of the school during apartheid era as an institution for the transmission and development of black cultural heritage. Furthermore, evidence suggests that for black students, there was no opportunity to pursue their career as psychologists as they were denied of admission in historically white universities to study psychology (Moletsane-Kekae, 2004; Nicholas, Pretorius, & Naidoo, 1999). However, even after the apartheid era, Moletsane-Kekae (2004:5) reports that there is still insufficient knowledge and availability of psychological services in the schools in townships.

4.6.3 Seating preference

Graph 4.1 Seating arrangement

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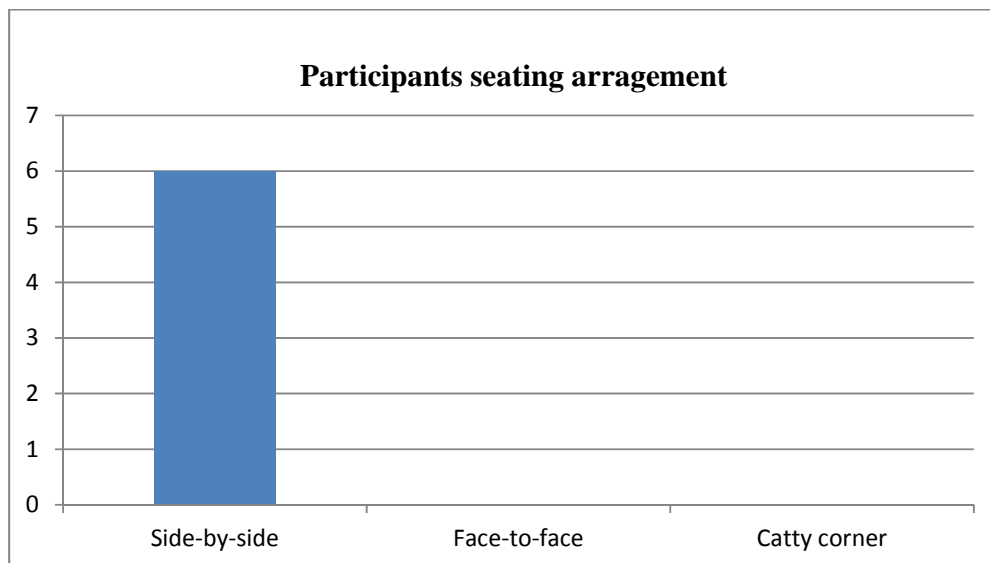
During the ARCS procedure, the participants have chosen the seating choice as follows:

- Side-by-side: six participants that are Polonto, Mwana-Sasa, Muyomba, Mwanza-Mani, Mukubwa-Obende, and Kamalamba-Mabe.
- Face-to-face and catty-corner: none of the participants.
- Catty corner: none of the participants.

This study revealed that all the six participants chose the seating arrangement side-by-side. This suggests that the participants sat in middle between the translator and researcher, or at the right or left side of the researcher and translator. This sitting arrangement appears to be in agreement with other researchers (Exner, 1993:47 in Moletsane-Kekae, 2004) who proposed that side-by-side seating is very important as it reduces the effects of inadvertent and unwanted signals from the examiner that might influence the participant; and that this position affords the examiner a much better view from which to see the features of the blots as they are referred to by the client. Furthermore, this sitting arrangement reflects Klopfer, Hertz, Bohm and Piotroski's recommendation as to which the examiner can use side-by-side arrangement during the Rorschach test (Exner, 2003:48). In addition, Exner (2003) indicates that there is actually no psychological test that requires the face-by-face seating.

4.6.4 Reactions of the participants

4.6.4.1 Surprised

It could be seen that two out of six participants were surprised, while four participants were not surprised to Rorschach test. This finding suggests that the majority of the participants were not surprised to the test; suggesting the feeling of readiness for the Rorschach test.

4.6.4.2 Happy

It could be seen that three out of six participants were smiling and happy. On the other hand, the other three participants showed some negative feelings to the test. It was also found that some participants squeezed their fingers; while others were calm and comfortable. These feelings suggest that, some participants were happy while others were not.

4.6.4.3 Embarrassed

Based on this subtheme, it could be seen that during the test there was no participant who was embarrassed to respond to the test. This study suggests that all the six participants were comfortable.

4.6.4.4 Refusal

Related to the refusal variable, it was seen that five out six participants responded very well to the test, while one participant refused to answer the test. More specifically, Mwana-Sasa did not provide any answer to the card VII and IX (she lifted her shoulder and declared: *Andiyazi* (I don't know). The study therefore concludes that only one participant refused to respond to cards VII and IX.

According to Exner (2003:54), most common attempts to reject card with card IX that seems to have the highest level of difficulty. Referred in clinical psychology and psychiatric, Sisson, Taulbee and Gaston's (1956:86) analysis revealed that schizophrenics reject card V, VII, VIII, IX and X, and neurotics card IX. Hoover's (1977:223) interpretation suggest that the individual who reject cards IV, VI, VII, and IX could relate themselves to the characteristic of sexual shock of these cards. Tamkin's (1958:64) study indicates that the intellectual functioning is a factor in rejection that suggests the difficulty in delivering concepts from the Rorschach; and this may be attributable largely to the structural complexity of the cards as against their emotional evocativeness. Furthermore, Weiner (2004:66) agrees that a person who gives only 12 responses should be considered likely to have schizophrenia-spectrum disorder even though the limited nature of the data precludes any description of the individual's personality functioning.

4.6.4.5 Relaxed

It could be seen that the six participants were relaxed during the ARCS procedure. This study concludes that the majority participants showed the positive feelings. This conclusion is consistent with Moletsane-Kekae's (2004) study that indicated that the ARCS procedures enable the participants to give more responses during the test.

Taking the test can produce various reactions to the participants. Some excitements during the test are abnormal, while others are normal and beneficial to the test outcome. Although test

anxiety and anxiety disorders share some characteristics, and the students with test anxiety often experience anxiety disorders, these conditions are different (Huberty, 2009).

People with anxiety disorders experience *trait anxiety,* which means that their high levels of stress appear to be on-going personal characteristics that are evident across settings and situations (Cassady, 2010; Cizek & Burg, 2006). Conversely, people who experience test anxiety tends to have *state anxiety,* which means that their high levels of stress are situation specific, for example extreme and unwarranted tension during testing or evaluative activities (Cassady, 2010; Cizek & Burg, 2006).

4.3.4.6 Eye contact

As regard to the eye contact, it was observed that all the participants did not have eye contact to the researcher and the translator. Therefore, the study suggests that the participants have conserved their culture of respect for an elder person. This suggestion agrees with Moletsane-Kekae's (2004) study that found that an African child who is shy and avoids eye contact when talking to the elder people shows respect. In light of Moletsane-Kekae's observation, the study suggests that all the participants did not have eye contact with the researcher and translator as a sign of respect. Similarly, in Peiming and Wensheng (1997:3) study, it is indicated that children have to minimize eye contact, especially with authority figures, one be perceived as arrogant or "uppity". When cultures interact, this inhibition of respect may be misinterpreted "passive aggressive" or worse. In addition, Peiming and Wensheng (1997:5) reported that in African countries, Latin America, Caribbean countries and Asian countries (Japan, china), if you are in these countries or have to deal with one of these cultures you have to avoid direct eye contact. It is because looking directly into the eyes show rudeness, threatening and disrespectful.

DeVito, O'Rourke and O'neill (2000) revealed that eye contact is a message of communication. Americans and countries in Europe considered direct eye contact as an expression of honesty and forthrightness. Some Latin Americans and Native Americans, direct eye contact between a student and a teacher can be considered inappropriate and perhaps aggressive. Appropriate student behaviour is to avoid eye contact with the teacher. In contradiction eye contact may seek feedback, signal for others to speak, indicate the nature of relationship, or compensate for

increased physical distance. Eye avoidance may help you avoid prying or may signal a lack of interest (DeVito, O'Rourke & O'neill, 2000).

4.3.5: Strategies to acquire concepts

This study employed strategies in order to acquire concepts. However, the researcher asked Mwana-Sasa (the participant who gave less than 14 responses) to describe concepts, to draw images, to view and see around her environment in order to provide more responses. Despite the use of these strategies, Mwana-Sasa could not provide more answers to the cards. This study reveals that one participant could not react to the use of strategies although Moletsane-Kekae's (2004) findings suggest that these strategies can help the participants to give more responses by describing, showing, viewing drawing. In addition, Exner (1993:53) is of the view that if the participant gives not more than two answers to Card I and he\she gives only one to Card II, III, and IV, the researcher can propose a standard prompt or encouragement in order to set the person to give a record of sufficient length to permit a valid interpretation. This encouragement is employed as:

> *If you take your time and look some more I think that you will find something else, too.*

4.3.6 Inquiry and RE-Inquiry Phase

During the ARCS procedure, the inquiry phase was done immediately after each card (Moletsasne-Kekae, 2004). For example, one participant (Mwana-Sasa) could not provide more responses; she lifted her shoulders and said: *Andiyazi* (I don't know). She gave one response on the card I, III, IV, V, VI, VIII, and X. Moletsane-Kekae's (2004) therefore recommends that RE-Inquiry phase be done when a participant gives less than two responses on card.

4.3.7: Language

The participants mixed isiXhosa and English when giving their responses. More specially, Polonto used in card VIII (*ubuso be elephant*: face of elephant). Muyomba and Mukubwa-Obede used *imask* (isiXhosa) (mask: English) in card I. Mukubwa-Obede, Mwanza-Mani and Kamalamba-Mabe mentioned *isa South Africa map* (map of South Africa), and *zi carrot* (carrot), *ingazi yi heart* (blood of heart), *lizimu ipaint* (split paint) on card I, II, III, IX. Furthermore, it was seen that all the six participants had fluidity in isiXhosa language. This study concludes that the majority of participants provided sufficient response during the ARCS in their home language. This is consistent with Moletsane-Kekae's (2004) suggestion that the participants have an advantage of being able to express themselves clearly in their native language. Moletsane-Kekae's suggestion appears to chime in Stofile, Raymond, and Moletsane-Kekae's (2013:39) argument when they highlighted that learners often found difficult to comprehend spoken English because the English phonological system differs significantly from the learner's home language. In addition, they find difficult to break a word up into syllables leading to misreading, misinterpretation and poor comprehension. Some of the participants employed less other language (English).
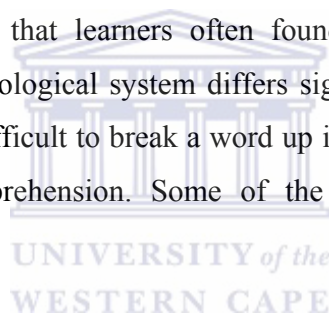
Weneir (2003:54) argues that the cultural background of language must be considered on the delivery and comprehensive of Rorschach responses. However, these forms of expression are particular to the native language people speak, it is symbolic referents distinctive to their cultural heritage, and dialectical differences in what certain words mean to them inevitably give shape to the verbal content in which they frame their responses on the Rorschach. The usage of cultural specific language on Rorschach responses is important for a Rorschach protocol to be properly coded and correctly interpreted, and people need to be responding in their native tongue or a very well-known second language (Weneir, 2003).

4.3.8 ARCS rate responses

During the ARCS administration procedure, five participants gave a satisfactory number of responses between 14 or more (participants Polonto, Muyomba, Mwanza-Mani, Mukubwa-Obende, Kamalamba-Mabe) and one participant gave less than 14 responses (participant Mwana-Sasa). The ARCS rate of responses are tabulated and illustrated in table 4.5 and 4.4 below.

Table 4.9 Numbers of ARCS responses and average ARCS responses per card

Participants	Card Number/Number of ARCS responses										Total	Average per card
	1	2	3	4	5	6	7	8	9	10		
Polonto	1	2	2	1	2	1	2	2	3	4	20	2.0
Mwana-Sasa	1	2	1	1	1	1	-	1	-	1	9	0.9
Muyomba	2	4	5	3	3	4	4	3	2	6	36	3.6
Mwanza-Mani	4	3	3	2	2	4	3	3	3	4	31	3.1
Mukubwa-Obende	2	2	2	3	4	5	2	4	5	6	35	3.5
Kamalamba-Mabe	2	3	6	4	5	4	4	3	3	5	39	3.9
Total responses	12	16	19	14	17	19	15	16	16	26	170	17.0

Graph   4.2   ARCS   response's   rate

ARCS response's rate
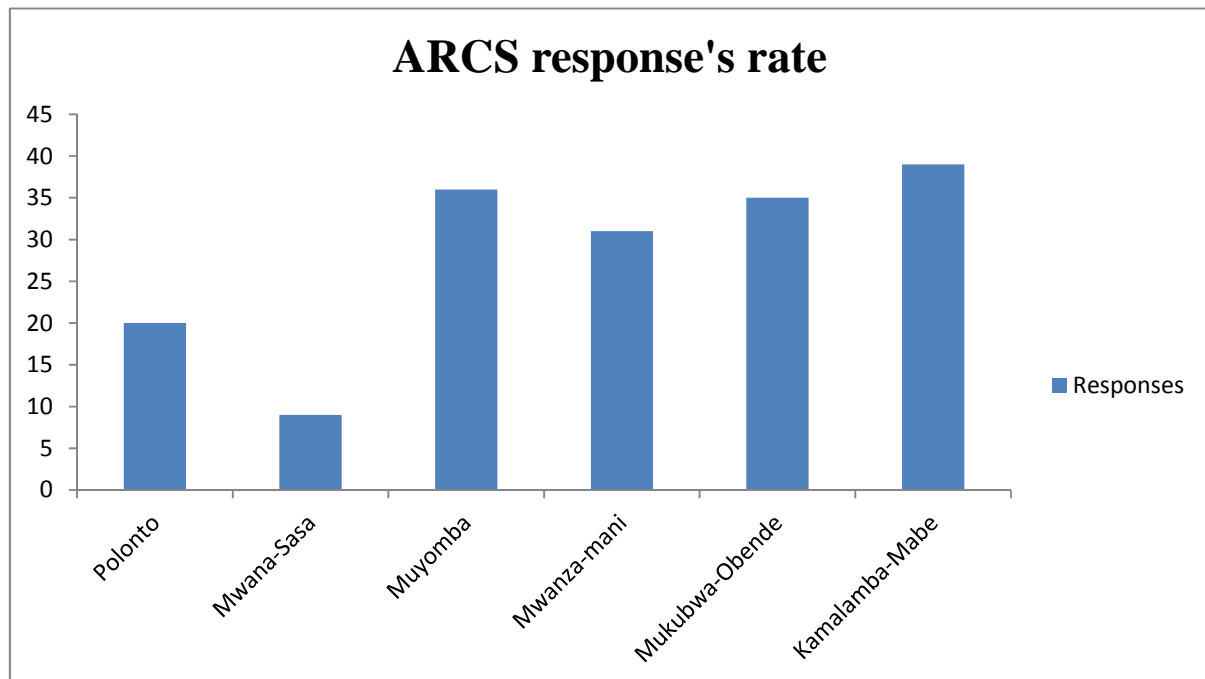
The ARCS response's rate is revealed vertically on graph, and the participants on horizontal. From the most to the least, participant's response rate is suggested as follows: Kamalamba-Mabe (39), Muyomba (36), Mukubwa-Obende (35), Mwanza-Mani (31), Polonto (20) and Mwana-Sasa (9). The total number of ARCS responses of six participants are 170 and the average number is 17.0.

- **FOURTEEN OR MORE RESPONSES**

Weiner (2003:331) indicates that a valid record comprises of 14 responses which meets the minimum criterion for sufficient length to yield a generally reliable Rorschach protocol. Furthermore, if the records have fewer than 17 responses, there are likely to be guarded and consequently limited in how much they reveals about a respondent's personality process.

- **LESS THAN FOURTEEN RESPONSES**

In this study, Mwana–Sasa gave less than fourteen responses as her total responses were (R=9). In this circumstance; the research should use the following strategies (Motlesane-Kekae, 2004):

> *The researcher gives description; drawing, seeing/viewing strategies explain the participant: now you know how it is done, but there is a problem. You did not give enough responses for us to get anything out of the test. We will go through them again and this time I want you to make sure to give me more answers. You can see/view around you, to the window, in the nature, and describe the concept if you did not know how to spell it, can you draw on the paper if you like, but make sure to give me more answers this time. Well, it is really up to you, but you only gave nine responses (R=9), and I really need more than that to get anything out of the test.*

According to Exner and Weiner (1995:33-34) and Exner (1988 in Exner & Erdberg, 2005:467) if the participant gives less than fourteen responses (R<14), the records are probably invalid and they cannot be interpreted. In addition, the records with fewer than 14 responses are usually too limited to provide reliable information so as to support valid interpretations (Weiner, 2003:67). Exner (2003:53) emphasizes that records containing less responses are probably not valid. Exner

(2003) therefore reveals several reasons that can be the cause of brief records; such as the participants who have recently experienced significant neurological impairment often find the task difficult and frequently try to avoid becoming overly involved.

In light of preceding observation, one participant rejected the cards VII and IX. According to Exner (2003:54), most common attempts to reject card with card IX that seems to have the highest level of difficulty. However, insights from clinical psychology and psychiatric research (see Sisson, Taulbee and Gaston's (1956:86) analysis) suggest that schizophrenics reject card V, VII, VIII, IX and X, and neurotics reject card IX. Furthermore, Hoover's (1977:223) interpretation suggests that the individual who rejects the cards IV, VI, VII, and IX can be associated to the characteristic of sexual shock of these cards. Therefore, it was concluded that the intellectual functioning was a factor in rejection that suggested the difficulty in delivering concepts from the Rorschach may be attributable largely to the structural complexity of the cards as against their emotional evocativeness.

CONCLUSION

In this study, the researcher has applied the ARCS administration procedure for analysing the data of participants' background details, their exposure and experience to the test, their seating procedures, their observation, their language usage during ARCS administration, their response rates, and different content responses of Rorschach test in order identify the types of personality to the participants.

During the ARCS administration procedure, the participants were enabled to feel free; there was not instruction to seating arrangement. They were at liberty to choose a comfortable place; they chose side-by-side. The participants' reactions indicated surprise, relaxation, and happiness to the Rorschach test and ARCS administration procedure. There was no eye contact, whereas one refused respond to the cards. Some of them reacted during inquiry and re-inquiry. The participants used isiXhosa as home language during ARCS procedure. The researcher employed strategies to acquire concepts. Most of the participants gave more responses during the ARCS administration procedure, while one mentioned less response. Finally, the interpretation of findings described in this chapter.

OOO

CHAPTER 5

FINDINGS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION OF THE STUDY

5.1 INTRODUCTION

This study involves the administration of the Adjusted Rorschach Comprehensive System (ARCS) to learners from a school situated in a disadvantaged community in the Western Cape Province. The study's theoretical framework integrates perspectives from the critical psychology and indigenous psychology. Furthermore, the study's literature review conducted aimed at gaining insights on previous studies related to the research concept. The research design and methodology, and the data analysis and presentation were provided in Chapters, 3 and 4, respectively. In this chapter, the researcher provides a summary of the key findings and uses it to draw a conclusion with reference to the aim of the study. Based on the findings of the study and the limitations, the research makes some recommendations.

5.2 FINDINGS

In this section the findings are clarified by meanings to the research questions.

The main research question in this study was:

What are the response rates of learners from a previously disadvantaged school when Adjusted Rorschach Comprehensive System (ARCS) is administered to them?

As indicated in Chapter 4, during the ARCS administration procedure, five participants gave a satisfactory number of responses, that is more than 14 responses (participants Polonto, Muyomba, Mwanza-Mani, Mukubwa-Obende, Kamalamba-Mabe). On the contrary only one participant gave less than 14 responses (participant Mwana-Sasa). Therefore, as indicated in Table 4.9, the total number of ARCS responses of six participants are 170 and the average number is 17.0. In light of this finding, the researcher concludes that the response rate of learners from a previously disadvantaged school when Adjusted Rorschach Comprehensive System (ARCS) is administered to them is 17.0 average responses.

Average responses per card

The results of analysis and interpretation of data shows that the total and average responses of the six participants vary as follows:

- Polonto: Number of responses 20; average 2.0.
- Mwana-Sasa: Number of responses 9; average 0.9.
- Muyomba: Number of responses 36; average 3.6 as average number.
- Mwanza-Mani: Number of responses 31; average 3.1.
- Mukubwa-Obende: Number of responses 35; average 3.5.
- Kamalamba-Mabe: Number of responses 39; average 3.9.

These data indicate that the six participants gave 170 responses on the 10 cards, which is an average of 17 responses. This study therefore concludes that the response rate of the six learners from a school situated in a previously disadvantaged community in the Western Cape when ARCS was administered is 170, and which is a high rate of response.

In this study three subsidiary research questions were:

How do learners in a previously disadvantaged school in the Western Cape react to the Adjusted Rorschach Comprehensive System (ARCS) administrative procedure?

The six learners involved in the ARCS showed mixed reactions, such as surprised, happy, relaxed, and refusal, as indicated below:

a) Two out of the six participants reacted in a surprised manner when the test was presented. The reason for their surprise could be because the pictures were exciting, as evidenced by their facial and body expressions.

b) Three of participants, showed a feeling of happiness during the test. They often smiled each time the researcher handed to them a new card. These three participants were enthusiastic and ready to participate in the test.

c) Five out of six participants were relaxed. This may be because the researcher did not show an intimidating posture. They were calm and felt free to participate in the Rorschach test.

d) One out of six participants gave less than fourteen responses, and she did not answer Cards VI and IX, probably because she had a negative attitude towards the test. This negative attitude was reflected in that she consistently lifted her shoulders during the test. Besides, when the researcher used strategies such as description, drawing, seeing; she kept on saying *indiyazi* (I do not know). According to her teacher, it is assumed that this participant had a bad family experience. The fact that one of her family member passed away at the time of the study may have resulted in her being not emotionally ready to respond to the test.

e) All the six participants did not have eye contact with the researcher; but they put their faces down when responding. This reaction is a sign of respect to their elders, which is inherent in the African culture.

f) There was no reaction of embarrassment, crying, inability to recall from any participant. Therefore, this study is in contrast with Moletsane-Kekae's (2004) result that found among nine participants, two were embarrassed during the test for identify the concepts; one was crying because of a traumatic experience and one also was inability to recall the initial concept because of bad experience's life.
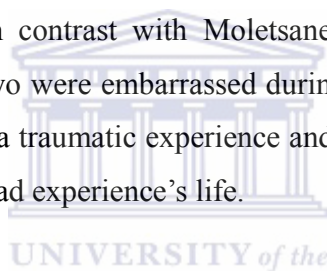
What are the possible factors that can lead to high rate of response when administering Adjusted Rorschach Comprehensive System (ARCS)?

This study provides the evidence that suggests the factors that increase the response rate during the administration of ARCS can be attributed to the flexibility of the test which include the adjustment of the testing procedure, which are language, seating arrangement, and others strategies that encourages the participants to respond.

a. Language

In this study, the researcher took isiXhosa as home language of participants as one of the cultural factors that lead to high rate of ARCS responses. It played a significant impact on learner's ability to provide sufficiently responses to their full potential when exposed to ARCS procedure. All the six participants expressed clearly more concepts in their home language (IsiXhosa),

because they were more comfortable when they provided ARCS responses during the Rorschach test.

b. Seating arrangement

During the ARCS procedure, the participants have chosen the seat as follows:

All six the participants chose the side-by-side preference. According to the literature this kind of seating reduces the effect of inadvertent and unwanted signals. This arrangement affords the researcher a much better from which to see structures of the blot by the participants. It also allows them to be comfortable, without eye contact with the researcher. This helps them to feel free to respond to the ARCS procedure.

c. Strategies

In this study, the researcher used different ways of responding such as drawing, viewing, and describing, as a strategy to motivate participants to give more response. According to the literature in this study, whether, the participant gives not more than two answers to Card I and respectively gives only one to Card II, III, and IV, the researcher can propose a standard prompt or encouragement in order to set the person to give a record of sufficient length to permit a valid interpretation.
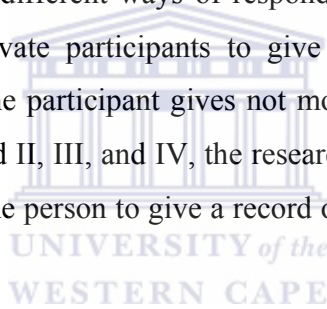
What are the possible factors that can lead to low rate of responses when administering Adjusted Rorschach Comprehensive System (ARCS)?

The possible factors that lead the participant to give low response rate during the test are as follows:

In this study, only the participant Mwana-Sasa gave fewer responses and rejected the cards VII and IX. However, literature (see chapter 4) indicates that a rejection of a Rorschach card suggests that something is troubling the person, and the source of trouble lies somewhere in the characteristics of the blot or the impressions it has conveyed. This sustains the researcher's statement that the participant Mwana-Sasa had a depressive feeling since one person in her family had passed away during the research study.

Non-exposure and experience to Rorschach test (psychological test) is also one of the factors that lead to low response rate. Participants who were exposed to the psychological test for the first

time might have been anxious. According to the literature, it is normal for students to fell anxiety when confronted with a new task or a new situation in daily life. Student who experience test anxiety displayed high level of stress, nervousness and apprehension during the test, and evaluative situations that significantly limit their performance, emotional and behavioural wellbeing, as well as attitudes towards school.

This study reveals that all of the participants had never been consulted or assessed by a psychologist, or a clinician. Based on the lack of exposure to a psychological test could be a factor that leads the participants to give low responses rate to the Rorschach test.

5.3 REFLECTION ON THE FINDINGS

The result of this study convoys some important messages. First, they corroborate each other. The average responses rate for the six participants selected from a previously disadvantaged school in the Western Cape was 17.0. Moletsane-Kekae's (2004) study involving ten participants selected from a previously disadvantaged in Gauteng showed an average response of 16.1. The difference is only 0.9 which shows that there is some consistency in the result of these two studies even though they are conducted in the different areas in South Africa. In addition, both studies were conducted in previously disadvantaged black community. It is important to mention that the average age of the participants in both studies was fourteen. The result of these two studies indicates that the ARCS procedure, if applied appropriately as provided by Moletsane-Kekae (2004), it is likely to produce the same result when applied on participants with similar characteristics from previously disadvantaged schools.

However, it is also important to highlight that South Africa where these two studies were conducted is diverse in terms of language, culture, ethnicity, and people. Therefore, a researcher administering the ARCS procedure in a non-black disadvantaged community may produce result that differs from those in a previously disadvantaged black community, irrespective of the provinces.

5.4 Quality criteria of qualitative research

Fundamentally, the validity and reliability considerations in qualitative research are intended to enhance the trustworthiness of the results (Seale, 1999 in Bashir, Afzal, & Azeem, 2008:39). Steinke's (2004:185) contends that qualitative research cannot exist without evaluating quality criteria trustworthiness, credibility, applicability, dependability, conformity, and reflexivity. These criteria relate to what Bush (2003) describes as the authenticity of findings.

5.4.1 Validity and Reliability

Validity refers to the extent to which a research truly measures that which it is supposed to measure, whereas reliability refers to the extent to which the results of a study are consistent over time (Joppe, 2000 in Golafshani, 2003:599). The use of validity and reliability, according to Golafshani (2009:597) is common in quantitative research and now it is reconsidered in qualitative research paradigm. Unlike quantitative research that seeks causal determination, prediction, and generalisation of findings, qualitative research seeks illumination, understanding, and extrapolation to similar situations (Hoepfl, 1997). Patton (2001) explains that a qualitative research should be concerned with validity and reliability issues right from the designing phase of the study, analysing of results, and judging the quality of the findings. The validity and reliability of this study were based on the following principles:

- Credibility
- Applicability
- Dependability
- Flexibility
- Transferability

a) Credibility

As with all qualitative research the truth value aspect is measured by credibility; it is established when participants agree with the constructions and interpretations of the researcher, or when the researcher presents describes the reality of the participants who informed the research in ways that resonate with them (Marchall & Rossaman, 2011). For this research attempt was made to

explore the culture, believes, needs, interests, and the overall background of the participants, this means that the findings of this study were based on the lived experiences of the participants.

b) Applicability

Applicability of qualitative research is established with transferability, the case study must be useful in illuminating another context whether it is to be deemed transferable, should be applicable to a setting or group; allowing readers to be able to apply the findings of the study to their own situations (Toma, 2011). This study has achieved transferability by employing research instrument and participants that are similar to those used by Moletsane-Kekae (2004). By doing so, the result of this study validates Moletsane-Kekae's (2004) study and vice versa.

c) Dependability

In qualitative research, dependability involves accommodating changes in the environment studied and in research design itself (Marchall & Rossaman, 2011; Toma. 2011). This study achieved dependability by employing an instrument previously administered to participant from Gauteng province to participant in the Western Cape Province. Secondly, when the instrument was administered in Gauteng the researcher employ pre-test and post-test, for this study the researcher employed descriptive exploratory case study.

d) Reflexivity

The reflexivity of the researcher is a one of high quality in qualitative trustworthiness (LaBanca, 2011). Rennie (2004:183) explained reflexivity as self-awareness and agency within that self-awareness. It permits to the researcher to recognize the effect of preceding experiences and knowledge. In addition, Morrow (2005:253) emphasizes that researcher reflexivity provided an opportunity to understand how her or his\her own experiences and understandings of the world can affect the research process. Reflexivity is designed to be a self-critical method for determining the impact of previous experiences and knowledge. It allows the researcher to acknowledge the influences of a variety of genres and styles of information (LaBanca, 2011). The researcher conducted extensive review of literature which has enabled him to understand the nature of research problem and other previous studies on the same problem. This made it possible for the researcher to develop a sound theoretical framework on which the research is situated.

All these issues related to validity and reliability are linked to triangulation. Qualitative researchers such as Hussein (2009), Golafshani (2009), O'Donoghue and Punch (2003), Bush (2003) believe that one of the ways to achieve validity and reliability in qualitative research is through triangulation. According to O'Donoghue and Punch (2003:78), triangulation is a "method of cross-checking data from multiple sources to search for regularities in the research data". Hussein (2009:3) identifies the types of triangulation as: data triangulation - the use of multiple data sources in the same study for validation purposes; theoretical triangulation - the use of multiple theories in the same study for the purpose of supporting or refuting findings; investigator triangulation - the use of more than two researchers in any of the research stages in the same study; analysis triangulation - the use of more than two methods of analysing the same set of data for validation purposes, and "methodological triangulation - the use of more than two methods in studying the same phenomenon under investigation.

Considering that the study employs multiple strategies of collecting data to adequately understand the research problem, researcher triangulation and methodological triangulation are not applicable in this study. Instead, three types of triangulation were applied in this study namely: data triangulation (leaners, teachers), theoretical triangulation (critical psychology, indigenous psychology) and method triangulation (Rorschach test, ARCS procedure, biographical, interview and observation). On the other hand, theoretical triangulation was targeted by corroborating the perspectives emerging from the data and theories supporting research problem and theoretical framework.

5.5 LIMITATIONS OF THE STUDY

According to Simon (2011), limitations in research are considered as potential weakness in research study and they are out of the researcher control. Each research study has deficiencies such as financial constraint. Based on the conclusion, the following has been identified as the limitations of this study.

The participants who go through emotional problems should be referred for psychological services. This was the case with Mwana Sasa, who did not respond well during the research process due the loss of her family member.

First, this study focuses on two main variables, namely response rate and possible factors that influence responses to the ARCS. As indicated in the theoretical framework, these variables integrate critical psychology and indigenous psychology. Both perspectives (critical psychology and indigenous psychology) are guided by the principle of fairness - fairness in terms of the content of the tests, environment where the test is administered, and the method of administration. The two variables may not have exhausted everything that should be known about learners' response to the ARC, such as personality types, influence of prior experience, place of residence, age, sex, etc.

Second, the study employed qualitative methodology integrating interpretivist and constructivist paradigms, which relied on the analysis and interpretation of data on participants' perspectives, opinions, and beliefs, and this is means to introduce some subjectivity into the results. Qualitative approach, as Rivera (2010) notes, is characterized by dilemmas and challenges of present results in a sufficiently brief, economical, and convincing manner. The objectivity that quantitative methodology offers is ignored. A mixed methods approach could have helped to yield more reliable results.

Furthermore, conducting the study with only six purposively participants in one school present some limitations. First, the results cannot be generalized to other learners in the school and to learners in other schools. The researcher focused on one school because of the logistics required to conduct the study in two or more schools. A multiple-cases design (with at least three schools) would enable for cross-cases comparison.

Finally, the study employed the Rorschach test (a foreign test) and Adjusted Rorschach Comprehensive System procedure (a locally developed procedure) which may have affected the results of this study. A locally developed test and procedure may be more helpful.

5.6 SUGGESTIONS FOR FURTHUR STUDY

Based on the conclusions of the study, the following recommendations are made:

This study focuses on rate responses and factors that can lead to high or low responses. Therefore, the researcher suggests that other future studies be focused on personality types, influence of prior experience, place of residence, age, sex, etc.

The current study focuses on qualitative approach. Therefore, the researcher suggests the use of mixed-methods method to augment our understanding of the issues and insights relating to the administration of the Adjusted Rorschach Comprehensive System procedure.

The large size sample should highlight the necessity for further research. However, a large sample of multiple schools, cross-case would have been to the benefit of the study for the purpose of comparison, as it is a better representation of the study.

Further study should be conducted to find reasons why other participants give less responses than fourteen (R>14) during ARCS procedure. This was the case with one participant in this study.

5.7 RECOMMENDATIONS OF THE STUDY

This study involves the Rorschach test as an instrument that was designed overseas, but adjusted to suit the South African context. This led to the development of Adjusted Rorschach Comprehensive System procedure. This locally developed administrative procedure (ARCS) embraced indigenous knowledge, which motivated South African participants to give more responses, positives results, and efficient to local people. This locally developed test and procedure may be more helpful. This is because the terminology used in the test could be applied to measure the personality of indigenous people from indigenous background.

The black populations where this study was conducted have their own indigenous system, which consist of their philosophy, logic or their way of looking at reality. This influences how they respond to different situations. For learners in school, indigenous knowledge influences their perception of the value of schooling and the way they respond to assessment situations, including psychological assessment. Therefore, it is highly recommended that psychological test designers take into consideration the philosophy or worldviews of the local people for whom the test is designed. This could be useful in minimizing or eliminating the underling factors such as anxiety, languages difficulties and a lack of commitment to the test.

The instrument used in this study which is the Rorschach test was originally designed by Hermann Rorschach based on the personality, cognitive psychology, developmental theories and

principles. The procedure of administering this test was adjusted by Molestane-Kekae (2004) to serve the needs of black South Africans learners in Gauteng province in South Africa. When applied to black learners in the Western Cape Province, Molestane-Kekae (2004) adjusted procedure also proved to be effective in determining how learners from a previously disadvantaged school respond to the Rorschach test. This study, therefore, recommends that prospective psychological test designers should endeavour to adjusted version of psychological test design in mainstream psychology in order to suit their clients' psychological needs.

5.8 CONTRIBUTIONS OF THE STUDTY

The outcomes of this study provides information that can enlighten the education community about the response rate of the learners from disadvantaged school in the Western Cape, and the factors influencing their responses when exposed to Adjusted Rorschach Comprehensive System (ARCS). In addition, the outcomes of the study can provide insights into the situation in other disadvantaged communities, in other provinces in South Africa and developing countries. The outcomes of this study can also provide conceptual, theoretical and methodological frameworks that prospective researchers can employ in the administration of ARCS to learners from disadvantaged communities in contexts.

This study contributes to the literature on assessment by means of psychological test. For a new system to be unique, this research has a potential value in terms of psychological assessment.

5.9 CONCLUSION

This study investigated how the learners in a previously disadvantaged school in the Western Cape respond and react to the Adjusted Rorschach Comprehensive System (ARCS). However, the study is situated within the field of psychological testing. The exposition of the background of the study shows that psychological testing has strong origin and orientation from the developed countries, mainly Europe and North America. Psychological tests can be employed for various purposes namely; organizational, educational, clinical, recruitment, research. The literature informs that one of the widespread criticisms against psychological test is the issue of

cultural bias which makes it difficult to obtain comparable measures of the same construct across cultures.

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Plaat I

Plaat II

Plaat III

Plaat IV

Plaat V

Plaat VI

Plaat VII

Plaat VIII

Plaat IX

Plaat X

*http://www.mhsappsychology.weebly.com/.../2/.../per_**rorschach_inkblot_test**_ii.**ppt***

APPENDIX 2   <u>**BIOGRAPHICAL FORM**</u>

NAME &SURNAME (Full Name)	DATE OF BIRTH, AGE(Year, Month, Date)	NAME OF SCHOOL(High, Secondary)	LANGUAGE(isiXhosa)
DATE OF ASSESSMENT			
GRADE			
PARENT INFORMATIONS			
FATHER			
Name & Surname			
Occupation			
Living			
Involvement			
Level of literacy (Highest Grade)			
MOTHER			
Name & Surname			
Occupation			
Living			
Involvement			
Level literacy			
ADVANTAGED/ DISADVANTAGED			
RURAL / URBAN			
TEST EXPOSURE			
Knowledge of Psychological Tests			
Pervious Test Exposure			
Experience of Testing Procedure (Rorschach)			

APPENDIX 3   **PROTOCOL OF ARCS RESPONSES**

Card N.	Positions of the card and ARCS responses	Inquiry	Total
I			
II			
III			
IV			
V			
VI			
VII			
VIII			
IX			
X			
Total ARCS responses number			

APPENDIX 4   <u>**ETHICAL CLEARANCE**</u>

OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT

UNIVERSITY *of the*
WESTERN CAPE

18 November 2013

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Mr KR Mukuna (Education)

Research Project: Administration of the Adjusted Rorschach Comprehensive System (ARCS) to Learners in a previously disadvantaged school in the Western Cape.

Registration no: 12/9/27

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Private Bag X17, Bellville 7535, South Africa
Tel: +27 21 959-2948/9
Fax: +27 21 959 3170
Website: www.uwc.ac.za

A place of quality,
a place to grow, from hope
to action through knowledge

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Western Cape Government

Education

Directorate: Research

Audrey.wyngaard2@pgwc.gov.za
tel: +27 021 467 9272
Fax: 0865902282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 20121211-0001
ENQUIRIES: Dr A T Wyngaard

Mr Kananga Robert Mukuna
Department of Educational Psychology
Education Faculty
UWC

Dear Mr Kananga Robert Mukuna

RESEARCH PROPOSAL: ADMINISTRATION OF ADJUSTED RORSCHACH COMPREHENSIVE SYSTEM (ARCS) TO LEARNERS IN SELECTED PREVIOUSLY DISADVANTAGED SCHOOLS IN THE WESTERN CAPE

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1.   Principals, educators and learners are under no obligation to assist you in your investigation.
2.   Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3.   You make all the arrangements concerning your investigation.
4.   Approval for projects should be conveyed to the District Director of the schools where the project will be conducted.
5.   Educators' programmes are not to be interrupted.
6.   The Study is to be conducted from **21 January 2013 till 26 April 2013**
7.   No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
8.   Should you wish to extend the period of your survey, please contact Dr A.T Wyngaard at the contact numbers above quoting the reference number?
9.   A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
10.   Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
11.   A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
12.   The Department receives a copy of the completed report/dissertation/thesis addressed to:
        The Director: Research Services
        Western Cape Education Department
        Private Bag X9114
        CAPE TOWN
        8000
We wish you success in your research.

Kind regards.
Signed: Dr Audrey T Wyngaard
for: **HEAD: EDUCATION**
DATE: 11 December 2012

Lower Parliament Street, Cape Town, 8001
tel: +27 21 467 9272   fax: 0865902282
Safe Schools: 0800 45 46 47

Private Bag X9114 Cape Town, 8000
Employment and salary enquiries: 0861 92 33 22
www.westerncape.gov.za

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APPENDIX 6 <u>PERMISSION TO CONDUCT RESEARCH AT SCHOOL OF SKILLS</u>

FACULTY OF EDUCATION

Department of Educational Psychology

2013 February 20

Attention: The Principal
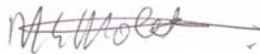
Lathi-tha School of Skills

Khayalitsha

Dear Sir,

TO WHOM IT MAY CONCERN

I would like to confirm that **Mr Robert Kananga Mukuna (Student number: 3212393)** is currently a student at the University of Western Cape in the Faculty of Education. He is registered for Masters in Educational Psychology Department and I am his supervisor. Robert would like to collect data from your school and seeks permission from you. As a supervisor I trust Robert's integrity, hard-work and loyalty. I therefore recommend that he should be given permission to conduct research at Lathi-tha School of Skills.

For further enquiries please contact me at the number or e-mail address below.

Tel. (021) 959 2429 (w), or e-mail me at: moletsane@gmail.com or mmoletsane@uwc.com.

Kind Regards

Prof. M Moletsane

APPENDIX 7   **PARENTS INDIVIDUAL CONSENT FORM**

As part of the fulfilment of the requirements of the Masters in Education Degree (M.Ed.) of the University of the Western Cape (UWC), I, MUKUNA KANANGA ROBERT, am required to conduct a research. I have chosen to research the following topic: **Administration of the Adjusted Rorschach Comprehensive System (ARCS) to Learners in Selected Previously Disadvantaged School in the Western Cape.**

I would like to grant me a permission to ask your child questions about a psychological test called "Rorschach Test". Participation will be voluntary. Participants will be exposing to administration of Adjusted Rorschach Comprehensive System (ARCS) test and will expect to give responses to inkblots cards in a one-on-one individual. All responses will be handled with complete confidentiality and your identity will be protected at all times. Your child's participation in this project will not prejudice you in any way. Your child will be free to withdraw from participation at any stage should she / he feel that her / his rights are being rdinfringed upon, or that she / he is being inconvenienced in any way by your participation.

If you agree to the conditions of participation in this study as specified above please sign this form in the space provided.
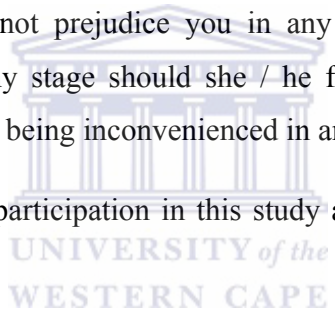
Signature of Parent of Learner _____

Signature of Learner (Minor) _____

Signature of Researcher   _____

Institution Affiliation   _____

Contact Number   _____

I thank you   MUKUNA KANANGA ROBERT

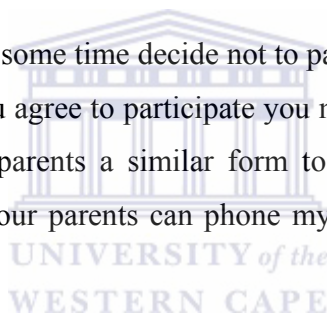   UWC Student number: 3212393

NB: For verification please feel free to contact my supervisor: Professor MOLETSANE KEKAE in the Faculty of Educational Psychology at The University of the Western Cape. Contact details: Landline: 021 959 2429.

APPENDIX 8   **LEARNERS CONSENT FORM**

My name is MUKUNA KANANGA ROBERT. I study at the University of the Western Cape in Education, Educational Psychology Department. I am studying about investigating the response rate of participants when administering Adjusted Rorschach Comprehensive System (ARCS) to the Grade 8 learners from previously disadvantaged school in the Western Cape so that you can do well and enable to the researcher to reliable founding and results. I have also informed your parents about my studies and I have asked your parents if I could ask you a few questions about psychological test and they agreed. The questions I will ask you will not cause you any problem and I will not tell your teachers or your parents about the answers you gave me as your answers are private. Your responses will be confidential.

If you want to participate and after some time decide not to participate you are free to tell me that you do not want to continue. If you agree to participate you must please sign or write your name on this form. I have given your parents a similar form to sign as they must also give their permission for you to help me. Your parents can phone my lecturer at UWC to ask them any questions about my homework.

Signature of Learner (Minor) _____

Signature of Researcher   _____

Institution Affiliation   _____

Contact Number   _____

I thank you

MUKUNA KANANGA ROBERT

UWC Student number: 3212393