

The Influence of IsiZulu Indigenous Language and Culture on
Intellectual Assessment: The Psychologists' Perspective

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DECLARATION

Thesis submitted in partial fulfilment of the requirements for the degree of Master of Social Science (Educational Psychology) in the School of Applied Human Sciences, Discipline of Psychology, College of Humanities, University of KwaZulu-Natal.

I, *Mbalenhle Gumbi*, declare that:

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
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5. This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged with the source detailed in the thesis and in the References section.

Mbalenhle Gumbi

Supervisor: Dr. Phindile L. Mayaba

DEDICATION

To my parents, Silindile Marriam Gumbi and Bhekumuzi Christian Gumbi.

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Glory and honour goes to the One who gave me the strength to complete this study-my Lord and Saviour, my God. “Being confident of this, that HE who began a good work in you will carry it on to completion until the day of Jesus Christ” (Philippians 1:6). Without Him, I would have never been able to complete this thesis. Praise God!

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ABSTRACT

The population of South Africa is diverse, comprising individuals from different ethnic and cultural backgrounds, who speak a variety of languages, practice various religions and have different political orientations. Such diversity poses challenges within the field of psychological assessment. This includes the appropriate use and interpretation of intellectual assessment measures. These challenges also emanate from the history of apartheid where there was an unequal distribution of resources, including psychological assessment measures. As such, the linguistically and culturally appropriate use and interpretation of intellectual assessment has been compromised.

This study investigated the influence of the isiZulu language and cultural background on intellectual assessment. The research was conducted obtaining psychologists' perspectives on using intellectual assessment measures on the isiZulu linguistic and cultural group. A sample of six psychologists was considered for this study, and interviews were conducted with each participant. Thematic analysis was used to analyse the psychologists' responses.

The themes that emerged from the interview data were namely; a) the use of assessment measures b) language and culture as a barrier and, c) interpretation of the assessment measures. The above issues seemed to concern most psychologists, as they evidently influenced the intellectual assessment process with individuals who are from diverse language and cultural backgrounds. Even though the focus of the study was on the isiZulu indigenous language and cultural group, the findings from the data were based on all the South African linguistic and cultural groups.

The study concluded that the limited availability of linguistically and culturally appropriate intellectual assessment measures is a challenge for both the client and psychologists in South Africa. Furthermore, concerns were raised about the need for psychologists to play a role in appropriate administration through obtaining contextual knowledge. Consequently, both the assessment measure and the administrators can negatively influence the effectiveness of the assessment procedure. Nonetheless, psychologists believe that intellectual assessment still have their place, however, they equally have their challenges that psychologists have individually tried to overcome.

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CHAPTER 1

INTRODUCTION

1.1 Background to the Research Problem

The South African Constitution values human dignity, equality, the advancement of human rights and freedom, and non-racialism and non-sexism (RSA, 1996). These values are important, especially since the people of South Africa are of diverse ethnic origins and cultural backgrounds, characterised by a variety of languages, religions and political orientations. With such diversity, fields such as psychological test administration, development and adaptation face numerous challenges (Foxcroft, Paterson, Le Roux & Herbest, 2004). These challenges include the appropriate and fair use of assessment measures on a diverse linguistic and cultural population. The availability of cross-cultural and multilingual assessment measures to accommodate the diverse South African population is a concern for psychologists (Foxcroft, 2011). Due to this, psychologists find it difficult to ensure that the actual ability of an individual is accurately measured without being influenced by linguistic and cultural diversities (Schon, Shaftel & Markham, 2008). Thus to uphold the Constitutional values of human dignity and equity, South Africa requires assessment tools and procedures that are not influenced by linguistic and cultural elements.

Part of the problem is that psychological assessment tools in South Africa were initially developed for the White population (Afrikaans- and English-speaking) and excluded the Black population (Zuma, 2014). This was a result of South Africa's history of colonialism and apartheid, which led to issues of power and leadership (Foxcroft et al., 2004; Foxcroft, Roodt & Abrahams, 2009; Mdlalo, 2013). Such intellectual assessment measures were used to compare racial groups and emphasize the superiority of one group over the other (Foxcroft et al., 2009). Although changes were made post-apartheid and there have been attempts to develop culturally fair assessment measures, the legacy of this history continues to affect all levels of society, including the practice of psychological assessment (Setshedi, 2008).

In addition, the majority of the psychological assessment tools that are used in South Africa originate from European countries as well as North America (Foxcroft & Roodt, 2013; Jukes & Grigorenko, 2006). These countries have a Western way of living and their assessment measures are based on a Western understanding of the constructs they measure. The norms used in these assessment measures are therefore irrelevant to the South African population and

could potentially lead to the inaccurate representation of an individual's potential (Foxcroft et al., 2009; Foxcroft & Roodt, 2013; Mdlalo, 2013). It is therefore not only South Africa's negative history that has had a negative influence on psychological assessment, but Western developed assessment measures also contribute to this.

All forms of standardised assessment measures have a major impact on an individual's life and on society as a whole (Setshedi, 2008). Of relevance to this study, intellectual assessment and its outcomes are used as guidelines for educational, career and social paths (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2013). This form of assessment assists in providing information regarding intellectual functioning that will determine an individual's performance in the above-mentioned domains. It is therefore vital to consider all aspects of an individual, including language and culture, when conducting an intellectual assessment. Such considerations are made through cultural sensitivity and assessment with the appropriate tools that take language and culture into account. Yet doing so is currently a challenge in the field of psychology (Foxcroft, 2011; Levin & Buckett, 2011; Zuma, 2014).

Moreover, Miller (2011) states that intellectual assessment is a complex process, especially in a linguistic and cultural diverse context. In addition, there seems to be a lack of consensus amongst psychologists on what intelligence is and how it can be successfully measured (Foxcroft & Roodt, 2013). This difficulty is further complicated by the differences in the understanding of intelligence amongst certain linguistic and cultural groups. Consequently, if an intellectual assessment measure has been normed for one population, it cannot be used on a different normative population without some form of inherent bias being present (Foxcroft, 2011; Laher & Cockcroft, 2013; Padilla & Borsato, 2008). This reality is a concern for most psychologists, especially when assessing the effectiveness of Western-developed intellectual assessment measures.

In terms of this study, the isiZulu cultural group has a unique way in which its members understand intelligence. Therefore, the intellectual functioning of Zulus should be measured based on their cultural understanding of intelligence (de Sousa, 2016; Nomlomo & Sosibo, 2016). Indeed, intelligence may not be effectively measured using the currently available intelligence tests. This is because these tests may not be relevant for the Zulus, and their use may lead to the misrepresentation and inaccurate representation of the intellectual functioning of individuals from this group (Nomlomo & Sosibo, 2016). For intellectual assessment results

to be interpreted in a culturally fair manner, it is important that tests are appropriately administered for the groups in which they have been standardised for (Foxcroft, 2011; Laher & Cockcroft, 2013).

There are laws and ethical codes that have been developed to ensure fairness in assessment use (Foxcroft et al., 2004). Adhering to these laws and ethical codes has proven difficult for South African psychologists due to the limited availability of suitable assessment procedures and measures that effectively measure, for example, a Zulu individual's intelligence (Nomlomo & Sosibo, 2016). Psychologists also do not believe that law and ethical codes are the only solution to bridging the gap that exists between language and culture in assessment (Foxcroft, 2011). Even with the availability of legislation and ethics codes, intellectual test development and administration are still challenges.

Even though psychologists have concerns, very little research has been conducted on gaining psychologists' perspectives on the influence of the isiZulu language and culture in assessment, specifically intellectual assessment in the province of KwaZulu-Natal, South Africa.

1.2 Statement of the Research Problem

In South Africa, most assessment measures that are currently used to assess intellectual functioning were developed in Western countries (Foxcroft & Roodt, 2013). This means that these assessment measures have been standardised and normed for the Western population, which excludes the African population (Foxcroft & Roodt, 2013). Post-apartheid, there have been some advances that have emerged, which include locally developed psychological assessment measures and measures that have been adapted and/or translated for certain linguistic and cultural groups (Suzuki & Ponterotto, 2007). Foxcroft et al. (2009) argue that even with these changes, there is still a lack of truly relevant and appropriate assessment tools. As such, psychologists continue to experience difficulties in accurately assessing the intelligence of non-Western individuals.

The outcome of intellectual assessment measures have a significant implication on an individual's life. Thus the difficulties that are experienced by the psychologists also put the individual being assessed at a disadvantage.

Considering South Africa's diverse population, both language and culture are fundamental aspects in the assessment of intellectual functioning (Gottfredson & Saklofske, 2009). Specific to this study, the focus is on the isiZulu language and culture and the influence these may have on intellectual assessment measures. As Mdlalo (2013) states, intelligence needs to be assessed within its specific cultural context thus the intelligence of the isiZulu language and cultural group needs to be assessed in its context.

Based on the above, assessing an individual who is from a diverse linguistic and cultural background using the currently available standardized intelligence tests is a challenge for both the client and the psychologist. The fairness and appropriateness of the use of these assessment tools is an ongoing debate amongst psychologists as they face difficulties in appropriately guiding an individual's educational, social and career achievements.

1.3 Aims and Rationale

The main aim of this study was to interrogate and critically analyse the use of intellectual assessment measures on South Africans from an isiZulu language and cultural background. This was done through exploring the experience of psychologists who have assessed individuals who are from such a background. The study also aimed at identifying the challenges experienced by both the individual being assessed and the psychologist, and initiating a process of recommending a set of guidelines that can be used by psychologists to appropriately manage the assessment process of individuals from diverse linguistic and cultural groups, and interpret the findings in a fair, context-specific manner. In so doing, the study aimed at making a contribution that would lead to the individuals being assessed not being disadvantaged by the process, particularly since the outcomes of such measures have an implication on many areas of an individual's life.

Currently, there is scarcity of assessment tools that effectively assess individuals who are from diverse linguistic and cultural backgrounds (Foxcroft, 2011; Mdlalo, 2013; Setshedi, 2008; Zuma, 2014); more specifically, in the context of this study, individuals from the isiZulu linguistic and cultural background (de Sousa, 2016; Nomlomo & Sosibo, 2016). There has also been a limited number of empirical studies that have considered psychologists' perspectives and attitudes towards the use of the available intellectual assessment on the isiZulu language and cultural group.

As such, this study aimed to assist in establishing an understanding of the challenges experienced by psychologists. Furthermore, the study aimed to highlight the value of developing assessment measures that are linguistically and culturally appropriate for the South African context.

1.4 Research Objectives and Research Questions

The following objectives were formulated for this study:

- i. To investigate the limitations regarding the use of Western intelligence tests when assessing individuals from different cultures.
- ii. To establish the perceived difficulties that are experienced by individuals from an isiZulu linguistic and cultural background when assessed with Western intelligence tests.
- iii. To investigate the psychologists' experiences when assessing the intellectual functioning of individuals from an isiZulu linguistic and cultural background.
- iv. To explore how this experience affects the use and interpretation of the assessment findings.
- v. To generate a set of provisional guidelines that can be used by psychological assessment practitioners to manage the assessment process of individuals from diverse linguistic and cultural backgrounds in an accurate and unbiased manner.

Based on the above objectives, the study was driven by the following research questions:

- i. What are the limitations regarding the use of Western intelligence tests on individuals from different cultures?
- ii. What are the perceived difficulties that are experienced by individuals from an isiZulu linguistic and cultural background when assessed with intelligence tests that were developed using Western standards?
- iii. What are the experiences of psychologists when using intelligence tests on individuals from an isiZulu linguistic and cultural background?
- iv. How does this experience affect the use and interpretation of the assessment findings?
- v. What guidelines can be suggested to psychological assessment practitioners to manage the assessment process of individuals from diverse linguistic and cultural backgrounds in an accurate and unbiased manner?

1.5 Methodological Approach

This study used a qualitative approach to explore the psychologists' perspective on administering intellectual assessment tools on individuals from the isiZulu linguistic and cultural background. The study adopted an interpretive research paradigm to address the research questions. This paradigm was suitable for this study because of its focus on conceptualising the world as it is from subjective experiences of individuals (Silverman, 2010; Thomas, 2010). For this study, the interpretive approach was linked to Lev Vygotsky's (1978) sociocultural theory and was based on the belief that reality consists of people's subjective experiences of the external world (Bryman, 2004; Daniels 2016; Vygotsky, 1978). The overall aim of the research design was not to predict but rather to describe and explain the participants' experiences.

For the purpose of the current study, six participants were recruited, including psychologists and intern psychologists who are registered with the Health Professions Council of South Africa (HPCSA). Non-probability sampling was used to recruit participants. Data was collected by conducting semi-structured individual interviews. In analysing the data, thematic analysis was used. Thematic analysis is the most common form of analysis in qualitative and interpretive research and provides detailed analysis through breaking up the data in a constructive manner (Braun & Clarke, 2006; Bryman, 2004). The research methodology for this study is discussed in detail in Chapter 3.

1.6 Chapter Outline

Chapter One outlined the background of the study, stated the research problem, provided the research aims and rationale, the research objectives and the research questions, and explained the methodological approach of the study. Chapter Two presents the review of literature that is relevant to the study. This discussion addressed the theories and empirical literature that is relevant to the study. The chapter presents literature on South African linguistic and cultural diversity, psychological assessment, and the ethical and legal regulations of psychological assessment in South Africa. Chapter Three addresses the methodology that was applied to the study. This includes the research paradigm, the research design, sampling, data collection, data analysis and issues pertaining to trustworthiness along with ethical considerations. Chapter Four presents the findings that were derived from the data collected from participants during the interviews. This chapter also includes a discussion of the findings done in relation to the current available literature and theory. Chapter Five presents a summary and conclusion of the

research study. The implications of the findings for theory and practice are highlighted, as are the limitations of the study and recommendations for policy and further research.

1.7 Definition of Key Terms

Language: Language is a form of communication consisting of symbols (Reber, Allen & Reber, 2009). These are the symbols through which people convey meaning. Simply put, it is a medium through which people understand their feelings, thoughts, ideas and experiences (Reber et al., 2009). According to Kashima and Lan (2013), language is common in a specific cultural group, and it is shaped by the cultural experiences of that particular group in which it is used. In this study, the term “language” will be used together with “culture”. The two cannot be seen in isolation and should be collectively considered in understanding a diverse South African group (Kashima & Lan, 2013).

Culture: Culture refers to a shared system of meaning that includes beliefs, values and norms that are gathered through daily interaction within a certain cultural group (Moerdyk, 2009). This shared system of meaning in a group defines an individual’s language and understanding.

Intelligence: Generally, intelligence is a term used to describe mental ability (Reber et al., 2009). Moerdyk (2009) describes intelligence as the ability that people have to solve problems and learn from their experiences. For the purposes of this study, intelligence is defined as the efficiency of the manner in which information is processed to achieve context-specific outcomes (Foxcroft & Roodt, 2013).

Psychological assessment: As defined by Foxcroft and Roodt (2009), this term refers to a process-oriented activity. The aim of psychological assessment is to gather a wide range of information through the use of psychological assessment measures along with information from other documents (previous letters or reports), client history, intake interview and behavioural observations (Foxcroft & Roodt, 2013). This information is integrated and evaluated to make a diagnosis or decision, or to reach a conclusion about the client.

Intellectual assessment tool/measure: This term refers to tests for assessing individuals’ general intellectual level. The assessment process using this tool include a wide variety of different tasks that are closely related to intellectual abilities (Foxcroft & Roodt, 2013). Foxcroft and Roodt (2009) further state that intellectual assessment assumes that an

individual's ability to perform tasks that requires intelligence represents their level of general intelligence.

Psychologist: According to the Health Professions Act (No. 56 of 1974), a psychologist is a healthcare practitioner who is responsible for assessment, diagnostic and interventional activities (HPCSA, 2013; RSA, 1974). In South Africa, psychologists register in one of the following categories: counselling, clinical, educational, industrial or research psychology. The term psychologist will be used interchangeably with the terms assessor, practitioner and professional.

Clients: According to the HPCSA (2014), these are the individuals that seek psychological services. They are therefore the individuals to which the psychologists provide a service. In this study, intellectual assessment measures are used on them, and as such the term client will also be used interchangeably with the term testee.

1.8 Conclusion

This chapter provided the background to this study and the statement of the research problem. Thereafter, the aims and rationale were discussed, as was the research methodology. An outline of the chapters comprising this thesis was offered, followed by a clarification of important concepts in the study. The next chapter will critically review the literature that is relevant to the study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

South Africa's well-known history of colonialism and apartheid has accentuated issues of power and leadership in various contexts (Foxcroft et al., 2004; Foxcroft et al., 2009; Mdlalo, 2013). Despite the changes that have successfully taken place within the country to encourage the acceptance and celebration of diversity as stipulated in the Constitution (RSA, 1996), the repercussions of this history have pervaded all levels of society, including the profession of psychology and psychometric assessment. This, however, is not only due to the country's past but it is also due to the use of psychological assessment tools originating from European and Western countries (Jukes & Grigorenko, 2006). As a result, the development, administration and adaptation of psychological assessment tools within a diverse society face several challenges (Foxcroft et al., 2004; Foxcroft et al., 2009; Laher, 2010; Mdlalo, 2013). Amongst these challenges is the linguistically and culturally appropriate development, administration and interpretation of the assessment results. In going some way to address these challenge, this chapter presents relevant empirical literature on the link between language, culture and intellectual assessment, beginning with the definitions and understanding of key concepts that will be used throughout this study.

Firstly, Vygotsky's sociocultural approach to learning and development will be disused, as it is used to provide a theoretical framework for the study. This theory accentuates issues of the development of knowledge and intelligence and how both of these are acquired and applied. Secondly, the ongoing South African debate regarding the issue of linguistic and culturally fair assessment for intellectual functioning is described, paying particular attention to the isiZulu language and cultural reality and their role in intellectual assessment. Thereafter, a contextual understanding of intelligence is provided, and the administration of intelligence tests on this cultural group is addressed. The development of assessment tools is introduced to provide a context for the psychological testing of intelligence within South Africa. Finally, the relevant ethics codes, policies and laws in South Africa are acknowledged as they influence the administration of psychological assessment measures.

There is limited literature available, especially within South Africa, regarding psychologists' experiences on the administration of Western intellectual assessment tools on a diverse group

of individuals. This study aimed at bridging this gap and adding to the body of knowledge.

2.2 Vygotsky's Sociocultural Theory

Vygotsky's (1978) sociocultural theory is used as the theoretical framework for this study. This theory views the development of higher mental functions (intelligence) as mediated by culture and language and situated within historical, social and relational contexts (Daniels, 2016; Scott & Palincsar, 2013; Vygotsky, 1978; Wagner, 2012). Vygotsky's theory is based on the general law of cultural development, which includes the most important principle of Vygotsky's work, the zone of proximal development (ZPD). This principle regards the sociocultural setting as the primary and determining factor in the development of higher forms of human mental activity such as knowledge and understanding (Daniels, 2016; Vygotsky, 1978; Wagner, 2012). As such, mediation is an additional principle that society plays in shaping an individual's mind. Scaffolding is another concept that Vygotsky uses to describe the process in which individuals are supported to complete tasks that are within their range of competence (Vygotsky, 1978). The following sections will discuss Vygotsky's sociocultural theory as it relates to intellectual development and the psychological assessment thereof.

2.2.1 The general genetic law of cultural development.

According to Vygotsky (1978), the general genetic law of cultural development states that every function in the individual's cultural development appears twice: first on the social level, and later on the individual level. Simply put, cultural development first takes place between people (interpsychological) and then internally to the individual (intrapersonal) (Daniels, 2016; Vygotsky, 1978). Vygotsky (1978) thus postulated that the higher psychological functions are first mediated externally and socially, involving interpersonal relations before becoming internal psychological processes. As such, concepts and ideas are first introduced on a social or interpersonal plane, after which they move inward to develop on a psychological or intrapersonal plane.

The first stage represents the introduction and use of concepts and ideas between two interactive patterns, whereas the second stage represents the movement of the concept and idea from the outward social use to inner psychological ownership by the individual. Terms that are used by Vygotsky (1978) to describe this movement of concepts and ideas from the social to the psychological level include internalization, interiorization and appropriation. Internalization seems to be specific to this study and refers to the conceptual development that

results from interacting and collaborating with others. The individual also actively contributes to the process of internalization. Thus according to Vygotsky (1978), conceptual development occurs first as a result of social guidance from a more capable peer, which sparks the individual's process of internalization. According to Lantolf, Throne and Poehner (2015), this process leads to the independent development of higher forms of human mental activity.

Vygotsky (1978), through the general genetic law of cultural development, emphasises the interdependence of social and individual processes in the construction of higher forms of human mental activity (intelligence). This interdependence means that individuals' experiences and interactions play a vital role in the development of intellectual functioning. Vygotsky's concept of the ZPD plays a crucial role in this development (Vygotsky, 1978). Emphasis is also placed on three central tenets used to examine the relationship between learning (intellectual acquisition) and development, which are: social sources of individual development, mediation in human development (signs and symbols, including language), and ontogenesis (development and culture). The general genetic law of cultural development and these three central tenets play an important role in understanding the context in which an individual learns and develops. Evidently, intellectual development first takes place within an individual's social group. Therefore, its measurement should be aligned to the intellectual standards of that social group. According to Lantolf et al. (2015), this means that Western intellectual assessment measures do not evoke intelligence as an assessment measure that is context-specific for the individual. This supports the postulation made by Vygotsky (1978) regarding human intelligence being culturally and semiotically mediated.

2.2.1.1 The role of linguistic and cultural tools in shaping the understanding of the world.

Vygotsky (1978) argues that "tools" play a significant role in shaping an individual's understanding of the world as well as of themselves. He advocated that human beings do not automatically act on the physical world without intermediary tools (Vygotsky, 1978). These tools are artefacts created by humans within a certain linguistic or cultural group (Daniels, 2016; Mariotti, 2009; Susi, 2005; Vygotsky, 1978). An example of such artefacts may be the tool that is used to understand intelligence in different linguistic and cultural groups. The traditional African understanding of intelligence is based on skills performed in and around the household. Whereas, Western understanding of intelligence is based on social competence (Cocodia, 2014). This includes the social, emotional, cognitive and behavioural skills. These

artefacts are socially mediated and therefore portray the characteristics of the linguistic and cultural group in question. They are used as vital aids in solving specific problems that cannot be solved in the same manner if the artefacts were absent (Daniels, 2016; Susi, 2005).

These cultural artefacts also play a role in constructing individuals' understanding of the world around them. Importantly, the artefacts form a foundation from which an individual's intelligence is formed. Vygotsky (1978) posited that it is important to understand how individuals' social and mental activity is organised through culturally constructed artefacts, and can be done. This is successfully achieved through analysing or assessing these social and mental activities through procedures that take cultural artefacts into consideration (Lantolf et al., 2015; Mariotti, 2009). Such procedures include intellectual assessment. In other words, cultural artefacts need to be taken into consideration in understanding an individual's intellectual functioning through intellectual assessment (Daniels, 2016; Susi, 2005). Moreover, intelligence should be measured based on the available artefacts to which an individual has access and is able to use. Lack of such access will expose the individual to unfamiliar phenomena, resulting in misrepresentation of their true intellectual functioning (Lantolf et al., 2015). For example, if an African's intellectual ability is measured through assessing cognitive ability and social competence using Western tests that consist of foreign items, then there is a possibility of misinterpretation and misrepresentation of that African's true intellectual functioning. African intelligence is rarely determined using cultural artefacts (Cocodia, 2014). Moreover, Daniel (2016) emphasised that the standardised intellectual assessment tools may not accommodate all cultural artefacts, which may misrepresent some individuals' true intellectual performance. One of the most important contributions of this is the distinction Vygotsky made between the individuals actual and potential levels of intelligence which is referred to the ZPD (Vygosky, 1978).

2.2.1.2 The zone of proximal development.

As explained above, Vygotsky's sociocultural theory of human development describes learning and development as social processes and the origination of human intelligence in society or culture (Daniels, 2016; Lantolf et al., 2015; Vygosky, 1978). A major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of intelligence (Daniel, 2016; Vygosky; 1978). Vygotsky believed that everything is learned on two levels. First, through interaction with others, and then integrated into the individual's mental structure which is successfully explained by the ZPD (Daniel, 2016; Vygosky, 1978).

One of the most important aspects of Vygotsky's theory is based on the idea that the potential for the development of intelligence is limited to a ZPD. He attached value to predicting an individuals' future capabilities through this concept (Vygotsky, 1978). According to Vygotsky (1978), the ZPD can be described as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under guidance, or in collaboration with more capable peers" (p. 86). That is, it is the area of exploration for which the individual is intellectually prepared, but requires help and social interaction to fully develop (Daniels, 2016; Thompson, 2013; Vygotsky, 1978). Vygotsky emphasised that the study of the ZPD is also important, because it is the dynamic region of sensitivity in which the transition from interpsychological to intrapsychological functioning takes place (Lantolf et al., 2015; Vygotsky, 1978). The ZPD therefore considers the sociocultural setting as the primary and determining factor for the above functions to take place, leading to the development of higher forms of human mental activity, such as voluntary attention, intentional memory, logical thought, planning and problem solving (Daniel, 2016; Lantolf et al., 2015; Thompson, 2013; Vygotsky, 1978).

Thus according to Vygotsky (1978), the ZPD is a crucial learning feature. This is because learning awakens a variety of internal developmental processes that are able to operate only when the individuals are interacting with people in their environment or when they are exposed to aspects with which they would be familiar when addressed in cooperation with their peers (Turuk, 2008; Vygotsky, 1978).

Even with the attractiveness of the concept of the ZPD in its simplicity, its application in practice is more problematic. Zonzi et al. (2014) claim that Vygotsky did not offer much practical advice as to how the ZPD might be successfully applied within a learning environment – more specifically, when using psychological assessment tools. Shayer (2002), in earlier writings, states that due to his unfortunate passing at a young age, Vygotsky's theory is left for others to find effective ways to expand on it and put into practice. A contrary position was taken by Mendes et al., (2016) regarding Vygotsky's argument around intellectual assessment measures being significantly limited in their usefulness as tools for understanding an individual's capabilities. Thus to determine an individual's intellectual development, dynamic assessment paradigms must be used (Mendes et al., 2016). Here, the goal would be to determine intellectual capabilities that have not yet been mastered through mediation in the ZPD during

psychological assessment (Mendes et al., 2016).

Other researchers claim that Vygotsky introduced the notion of the ZPD due to his dissatisfaction with practical issues within the psychological practice (Clarà, 2017; Lantolf et al., 2015; Scott & Palincsar, 2013). Daniel (2016) argues that Vygotsky believed that the testing techniques that are established only determine the actual level of development, but ignore or do not measure the potential ability of the individual. Even when these assessment measures determine an individual's level of development, only certain aspects are highlighted because the terms and concepts used in the tests do not always correlate with the terms and concepts within the testee's language and culture. This disjunction affects not only the psychology profession, but has a drastic effect on the individual and their future (Lantolf et al., 2015; Zonzi et al., 2014). Therefore, while the use of Western assessment tools may determine an individual's level of intellectual development, certain aspects are ignored, which compromises and distorts the establishment of an individual's full potential. Vygotsky argued that traditional intellectual assessment strategies only depict one aspect of an individual's development (Zonzi et al., 2014). This ignores the many other factors that play a role in shaping an individual's mind and constructing intelligence. In other words, mediation is not taken into account.

2.2.1.3 Mediation.

Another fundamental concept of the sociocultural theory is mediation (Lantolf et al., 2015; Vygotsky, 1978). Vygotsky (1978) described mediation as the role that is played by society in shaping an individual's mind – that is, the human mind is culturally and socially mediated. This denotes that there are several factors – notably culture and language – that play a role in constructing the intellectual standards in a person's mind (Daniels, 2016). In other words, human activities that take place in a cultural context are mediated by language and symbols and lead to the development of intelligence (Daniels, 2016; Vygotsky, 1978). Thus Vygotsky does not consider intelligence as a solitary exploration of the environment but rather as a process of the individual's appropriation of the methods of actions that exist in the given culture (Vygotsky, 1978; Lantolf et al., 2015).

In this process of appropriation, artefacts (tools) play a crucial role. Therefore mediation is also defined as the use of certain tools within a socially organized activity (Lantolf, et al., 2015). There are two phenomena which encompass the mediated relationship of individuals to their environment. These are humans and symbolic mediation (Vygotsky, 1978).

The role of psychological tools is to mediate the psychological processes of humans. These tools have been transformed throughout the history of human beings. For example, the primitive humans used such psychological tools as casting lots, tying knots and counting fingers to mediate between their mind and the abstract world, while modern societies have transformed and updated these tools (Lantolf, et al., 2015). The result of the upgrade of some of these tools is known as “symbolic tools”. Amongst these symbolic tools, there are numbers, arithmetic systems, music, art and language (Daniels, 2016). Symbolic tools are understood differently by different groups, and can be a way in which an individual makes meaning, though a process described as scaffolding.

2.2.1.4 Scaffolding.

Scaffolding is another important aspect of Vygotsky’s sociocultural theory (Vygotsky, 1978; Lantolf et al., 2015). Vygotsky (1978) describes scaffolding as beginning when elements of a certain task are initially beyond an individual’s capacity. When described in context, scaffolding is a temporary framework that is put up for support and access to meaning and taken away as needed when the individual secures control of success with a task (Daniels, 2016; Lantolf et al., 2015). As a result, the individual concentrates on and completes only those elements in a task that are within their range of competence (Lantolf et al., 2015).

Vygotsky (1978) clearly emphasised that scaffolding relies heavily on interactional support and the process by which adults or more capable others mediate a child’s attempt to take on new learning. Scaffolding emphasises that the role of social interaction as being crucial to intellectual development, in that learning first occurs at the social or inter-individual level (Gillespie & Greenberg, 2017). Simply put, scaffolding represents the helpful interactions between an adult and a child or a teacher and a student that enable the child to do something beyond their independent efforts. It is for this reason that it is referred to as a temporary framework (Lantolf et al., 2015).

Vygotsky (1978) believed that intelligence is acquired and shared through social interaction. This intelligence is common amongst groups of people, thus making acquisition and sharing simpler (Vygotsky, 1978). Scaffolding allows this intelligence to be shared through the ongoing support the teacher or the parent gives to the child – or in the context of this study, through ongoing interactions with an individual’s culture. Once the individual is able to

independently “learn” or is able to complete specific elements of a task using their own capacity, there is reduction in the support provided so that the individual is in control and takes responsibility for their own learning (Daniels, 2016). Even though intelligence is acquired in this way, it does not substitute the intelligence embedded by the individual’s language and culture (Lantolf et al, 2015). Likewise, if individuals are assessed using Western intelligence tests, they may be introduced to concepts with which they are not entirely familiar, which consequently has negative impact on their performance (Lantolf et al., 2015). Thus considering contextually shared intelligence when assessing intelligence may yield more accurate results.

Sociocultural approaches to learning and development are based on the ideology that human activities take place in cultural contexts and are mediated by language and other symbol systems. Vygotsky (1978) attaches value to predicting an individuals’ future capabilities, through the concept of ZPD, as it emphasises the zone or context in which an individual acquires knowledge. Based on the above argument, Western intelligence tests are not sensitive to this context and do not measure future capabilities, thus they inaccurately represent an individual’s abilities. Language and culture should therefore be taken into consideration, as different intellectual meanings may exist for different people based on the artefacts they use in forming an understanding of intelligence. Even with the concerns that are present regarding psychology paying limited attention on the impact of language and culture on an individual’s ability, Vygotsky (1978) emphasised the importance of considering an individual’s social contexts through an understanding of this theory. This is especially relevant within the context of a linguistically and culturally diverse country such as South Africa.

2.2.2 Application of Vygotsky’s theory to the study.

Based on Vygotsky’s sociocultural theory, his focus was on small group interaction in meaning making and intellectual development. Furthermore, the theory emphasises on how intelligence is context-specific. That is, intelligence is understood and shared based on the common understanding between the individuals of a specific language and cultural group. Thus it is appropriate that intelligence is measured in accordance to the context to which an individual has been frequently exposed. The theory therefore helps understand the research question through stating that an individual’s exposure (linguistic and cultural exposure) has an influence on Western intellectual assessment. This is because Western-developed intellectual assessment tools cannot effectively tap into intelligence that has been formed through mediated experiences of an indigenous language and cultural group that is distinct from those of Western

cultures. Therefore, the Western intellectual assessment tools could be limited and form a barrier to assessing the intelligence of isiZulu-speaking individuals (Daniels, 2016; Lantolf et al., 2015; Mendes et al., 2016).

When Western intellectual assessment measures are in fact administered on isiZulu-speaking testees', the concepts used to understand intelligence in the tool must be appropriate for them. This will assist in appropriately representing the intelligence that is being measured. It is therefore important to evaluate whether the concept of intelligence used in Western intellectual assessment tools is in fact able to effectively reflect the intelligence of an individual who is from an isiZulu language and cultural background. This will be achieved through obtaining psychologists' perspectives. The study will explore the psychologists' perspective on this, along with the influence that isiZulu language and culture has on Western intellectual assessment tools.

2.3 Linguistic and Cultural Diversity in South Africa

South Africa is a diverse country with a multiplicity of cultures and eleven official languages (Bethlehem, De Picciotto & Watt, 2003; RSA, 1996). Language is understood differently across various social contexts (Mdalo, 2013). It is, however, universally viewed as a tool of communication that applies convention systems for illustrating concepts as arbitrary as symbols (Kashima & Lan, 2013; Mdlalo, 2013). This tool is then used as a "socially shared code". According to Mdlalo (2013) the concept of the socially shared code refers to a specific meaning shared within different groups such as cultural groups. It therefore becomes clear that through language or culture, social groups are able to construct and define unique identities and realities (Ball, 2005; Dlamini, 2009).

Given the existing linguistic and cultural diversity in South Africa, it is important for psychological assessment tools to cater for these diverse groups and maintain cultural and linguistic fairness (Laher & Cockcroft, 2014; Mdlalo, 2013). Equally important is that the administration of assessment tools to a diverse linguistic and cultural population is done with caution, as the results have significant effects on an individual's life (Laher & Cockcroft, 2014; Mdlalo, 2013). Specific to this study, the acquisition of isiZulu language and culture will be discussed in relation to the growing debate regarding the advantages and the disadvantages of bilingualism and code switching. Multiculturalism is also an important aspect that needs to be taken into consideration in examining different cultural conceptions of intelligence.

2.3.1 Acquiring the isiZulu language.

According to the latest statistics report, the isiZulu language is spoken by 64% of the South African population (Statistics SA, 2013). Therefore, the country consists mostly of the isiZulu speaking population. Whilst this population may be more than any other language group, it is still exposed to other languages and cultures (Mdlalo, 2013). Consequently, this language group may be obliged to use English (which is the dominant language) at school, in the workplace and in social settings (Mdlalo, 2013; Statistics SA, 2013). Even with such exposure, the two different language groups still vary in the acquisition of language and in defining and understanding certain intellectual concepts (Mdlalo, 2013). As such, the use of Western English assessment tools would therefore either be beneficial or not beneficial for this group (Lambert, 2014) – a central issue to this study.

From birth through to late adulthood, a person acquires indigenous language and communication skills through interaction with family and community members (Lantolf et al., 2015; Nomlomo & Sosibo, 2016). According to Vygotsky (1978), parents and the community play a pivotal role in shaping the individual's thoughts and perceptions. In the case of the isiZulu language, an individual who grows up within the Zulu sociocultural context acquires the isiZulu language and communication skills (de Sousa, 2016; Mdalo, 2013). These communication skills reflect, for example, respect (*ukuhlonipha*) to peers, siblings, family, relatives and community members, which is a very important trait for a child in that culture (Elion & Strieman, 2001). Through continuous interaction with the cultural group, the child makes use of and acquires the communicative ability and competence that is consistent with that of the adults in Zulu culture (Nomlomo & Sosibo, 2016). Moreover, the terms, concepts and rules that are embedded within this culture are central to the child's intelligence (de Sousa, 2016). Language, communication rules and cultural norms are thus learnt within the context of this socialization.

A study conducted by Nomlomo and Sosibo (2016), investigated isiXhosa and isiZulu folktales and traditional children's songs in order to highlight early literacy development in young children. It concluded that cultural oral literacy in indigenous languages has always existed but has become dormant and invisible due to assimilation and acculturation into the Western norms. Acknowledgement of such cultural benefits assists in the acquisition of not only literacy skills but also cognitive, linguistic and social skills that are important within society (de Sousa,

2016). Based on the above, language is uniquely acquired and represents a powerful tool of self-definition and expression and becomes a means through which various cultural and social groups can find unique expression.

Even with the difference in the manner in which the isiZulu indigenous group forms and understands concepts, it is clear that the isiZulu cultural group has significant amount of exposure to the English language (de Sousa, 2016; Nomlomo & Sosibo, 2016). For example, Mdlalo (2013) stated that most South African schools play a significant role in exposing an isiZulu-speaking child to other languages, especially because of the country's linguistic diversity. Usually, children are taught in English, then they are to take any other language (Afrikaans, isiZulu, etc.) as part of their curriculum (DBE, 2013). Media is another source of exposure to other languages. With such exposure, individuals who are from the isiZulu linguistic and cultural background have the potential to also develop the cultural, intellectual, linguistic and communicative rules of other cultures.

Despite this exposure to other cultural interactions, an individual from an isiZulu linguistic and cultural background may remain resistant to the adoption of Western practices and the English language due to dominance of their indigenous language in their context or negative associations with the foreign language and culture (Mdlalo, 2013; Nomlomo & Sosibo, 2016). South Africa has a well-known history of colonialism and apartheid that has resulted in still-visible issues of power and leadership, which may be linked to negative associations that might be held towards Western practices and the English language (Mdlalo, 2013; Setshedi, 2008).

Overall, for the many within the isiZulu language and cultural group, learning English is secondary to the acquisition of their indigenous language (Mdlalo, 2013; Nomlomo & Sosibo, 2016). It is their primary language that plays a significant role in their perception and interpretation of the world around them (Mdlalo, 2013; Nomlomo & Sosibo, 2016; Vygotsky, 1978). This perception is not only reflected in linguistic expression and comprehension, but also in cultural conduct and understanding. Therefore in a psychological assessment context, individuals may answer questions based on their perception and interpretation of the world. The assessor thus has to acknowledge and take into account the role of the primary language and culture in assessing and interpreting the individual's responses. In addition, given the diversity discussed above, in some instances the individual may be proficient in two languages.

This phenomenon is referred to as bilingualism, and can benefit or handicap a client's performance during psychological assessment.

2.3.2 The advantages and disadvantages of bilingualism in intellectual assessment.

Bilingualism refers to being exposed to two or more languages, which results in having proficiency in these two languages (De Bruin, Treccani, & Della Sala, 2015). For example, if a child is isiZulu-speaking at home and is taught in English at school, they may be expected to be proficient in both languages, and thus is considered to be bilingual. Therefore, the educational, workplace and community setting all may result in an individual being bilingual (De Bruin et al., 2015).

Bilingualism is a common phenomenon in South Africa and it is considered to be both an advantage and disadvantage (Baker, 2007; Mdlalo, 2013). Fraser (2010) states that in psychological assessment, it is crucial for an individual who is bilingual to be assessed in their mother tongue. This requirement is important because the psychological assessment tools published in English may be understood differently when translated into another language such as isiZulu (Fraser, 2010; Mdlalo, 2013). Even though bilingualism plays an important role when assessing an individual in their second language, there has been no evidence proving that standardised assessment tools accommodate bilingualism (Baker, 2007; Fraser, 2010). Such accommodation may possibly need the development of new assessment measures (Baker, 2007; Fraser, 2010). However, Hoff and Core (2015) argue that the development of new bilingual assessment tools is a challenging and repetitive process that cannot be executed immediately. As such, practicing psychologists still experience challenges and are forced to use assessment tools that will not be beneficial for the bilingual individual that is being assessed (Mkhize, 2013). This leads to further challenges on accurately administering assessment tools and interpreting the results, as well as on the individual being assessed.

There are studies that indicate that exposure to two languages from a very early age can offer a number of intellectual and linguistic advantages (Baker, 2007; Fraser, 2010 Nomlomo & Sosibo, 2016). One of the advantages as described by Blom, Küntay, Messer, Verhagen and Leseman (2014) emphasises on how bilingual individuals have an enhanced inhibitory control when ignoring certain perceptual information. This means that they are better than their monolingual peers at selectively attending to important information and ignoring misleading cues (i.e., cognitive control). This ability results from the fact that bilingual individuals are

constantly sorting through and filtering out extra perceptual information because, for every object or action, they assign two words or labels, i.e. one in each language that they speak (Blom et al., 2014). Depending on the context in which they find themselves, they have to develop the ability to choose the appropriate label. Thus bilingual individuals nurture their capacity to focus on relevant and appropriate information and deflect their attention away from information unrelated to the context. According to Mkhize (2013), when bilinguals are assessed in their second language, they need to choose the appropriate label for the object or label. Doing so may be difficult for the individual because of the differences in meaning between the first and second language for that object or label in the assessment tool. As a result, there could possibly be negative effects on their performance, misinterpretation of assessment results and inaccurate representation of their intelligence.

When compared to the required size of vocabulary in each of the two languages, research has also found that bilinguals can have a reduced vocabulary in one or both of their languages (Fraser, 2010; Paap, Johnson & Sawi, 2015; Paez & Rinaldi, 2006; Tare & Gelman, 2010). Tare and Gelman (2010) further state that children do not always have the same vocabulary in both languages. According to Fraser (2010), this is seen as a linguistic disadvantage and it has been found both for simultaneous bilinguals (when the two languages are learned together) and sequential bilinguals (where one language is learned after the other). This reduced vocabulary is prominent, specifically within South Africa, because of the low number of sequential bilinguals. Vocabulary is usually reduced within the second language that the individual acquires (i.e., in the context of this study, English) (Fraser, 2010; Tare & Gelman, 2010).

Bialystok, Craik, Green and Gollan (2009) have also investigated the consequences of bilingualism on non-verbal intellectual functioning. They administered a battery of intelligence tests to French-speaking children in Montreal who were also fluent in English. They expected to find that monolingual and bilingual children would perform equally on measures of non-verbal intelligence, but bilinguals would obtain lower scores on verbal measures. This expectancy may have been based on the perceived effects of simultaneous and sequential bilingualism and the potential for reduced vocabulary. To their surprise, bilingual children outperformed their monolingual peers on virtually all of the tests, including tests of non-verbal intelligence.

Barac and Bialystok (2012) later investigated 104 6-year-old children who belonged to four

groups (English monolinguals, Chinese-English bilinguals, French-English bilinguals and Spanish-English bilinguals). These children were compared on three verbal tasks and one non-verbal executive control task to examine the generality of the bilingual effects on development. The findings concluded that in the executive control task, all bilingual groups performed similarly and exceeded monolinguals, whilst on the language tasks, the best performance was achieved by bilingual children whose language of instruction was the same as the language of testing and whose languages had more overlap (Barac & Bialystok, 2012). Therefore the executive control outcomes for bilingual children are broad, but performance on verbal tasks is specific to factors in the bilingual experience. Overall, the evidence suggests that bilingualism may negatively affect verbal aspects of an intellectual assessment, but it helps rather than hinders the development of other abilities including non-verbal intellectual processes when compared to monolinguals (Bialystok et al., 2009). Thus negatively affecting their performance during intellectual assessment.

Bilingual individuals have also been found to perform better in conceptual transformation compared to monolingual individuals (Fraser, 2010; Paap et al., 2015; Tare & Gelman, 2010). This intellectual advantage is the process where bilingual individuals use the understanding they have of a specific concept to assist them in understanding a similar concept in another language (Fraser, 2010). Such transfer will only be possible if they are working with two already familiar languages, as opposed to individuals who are trying to make sense of a new language (Tare & Gelman, 2010). Thus an assessment conducted in the English language can be a hindrance to those individuals who are not proficient in the language of the assessment, because they first have to transfer their understanding from their home language to English (Fraser, 2010; Tare & Gelman, 2010).

The ability of bilingual individuals simultaneously switching from one language to the other has some disadvantages. According to Fraser (2010), there may be confusion with the deeper transfer of the languages at a conceptual level. This is seen as an intellectual disadvantage because some concepts within the English language, for example, may mean something different within the language in which it is being transferred (Fraser, 2010). The concept of “intelligence”, when transferred or translated to another language may be understood, demonstrated and applied differently within that language (Mdlalo, 2013). This may cause misunderstanding and confusion to the individual.

A contrary position is taken by some other researchers and there is further evidence to suggest that the accumulative vocabulary of the two languages within bilingual individuals may lead to stronger skills in concept development than monolingual children (Fraser, 2010; Laichlan & Carrigan, 2013; Tare & Gelman, 2010). In a study conducted by Lauchlan and Carrigan (2013), monolingual children performed significantly better than their bilingual peers on the Vocabulary sub-test of the Wechsler Intelligence Scale for Children (WISC-IV, UK edition) (Wechsler, 2006). The WISC-IV is a cognitive assessment tool that assesses a child's overall level of intelligence relative to their age. The results from this assessment can give an overall level of intellectual functioning, and a measure of intellectual strengths and weaknesses across four indices which are Verbal Comprehension Index (VCI), Working Memory Index (WMI), Perceptual Reasoning Index (PRI) and Processing Speed Index (PSI) (Fraser, 2010; Lauchlan & Carrigan, 2013). The VCI specifically requires children to provide descriptions of different objects and concepts in English. Higher scores were allocated to those children who provided richer, more detailed definitions in English. Even though the above argument states that bilingual individuals have stronger concept development skills, it may not be the case when such an assessment tool is used on the bilinguals from the isiZulu linguistic and cultural background. This is a limitation regarding the use of Western intellectual assessment measures on different cultures. The testee from the isiZulu linguistic and cultural background may have difficulty in effectively describing objects and concepts in their second language.

Bilingual individuals may know the description of the objects and concepts in their first language, but may not successfully describe them or are slow to access the words in the required language. This may explain the above contradictions between the advantages and the disadvantages of bilingualism. Kaushanskaya, Blumenfeld and Marian (2011) offered a further explanation and stated that most research showing the reduced intellectual skills of bilingual individuals has been conducted with assessment tools that are in English and with time-constraints for lexical retrieval (e.g., semantic fluency or picture-naming tasks that require speed of retrieval). Therefore, unfamiliarity and speed may be of concern. The hypothesis put forth by Kaushanskaya et al. (2011) suggested that if bilingual individuals were given more time on time-constrained test items, they would perform at similar levels to their monolingual peers. Rather than describing bilingual individuals as having limited intelligence when compared to monolinguals, it may be a case of "bilinguals putting more effort in the process of intellectual retrieval" (Kaushanskaya et al., 2011, p. 421).

Moreover, it is important for psychologists to consider whether the individual has a similar level of proficiency in both languages (Fraser, 2010; Lauchlan & Carrigan, 2013). Doing so would assist the psychologist in choosing and administering the most suitable intellectual assessment measure. However, Lauchlan and Carrigan (2013) indicate that it may be impossible to accurately determine the level of proficiency in both languages because there is no standard technique with which to do so, and time that is spent with the individuals being assessed is limited. These factors can lead to difficulties when assessing an individual with standardised measures (Fraser, 2010; Lauchlan & Carrigan, 2013).

In addition, an evaluation that is based on administering an assessment tool in the individuals “weaker” language may lead to an under-estimation of the individual’s vocabulary skills, a possible misdiagnosis, a false impression or a partial and biased intellectual profile (Lauchlan & Carrigan, 2013). Alternatives to standardised assessment, i.e., dynamic assessment (as informed by Vygotsky’s sociocultural theory), have been found to be more suitable when assessing individuals who are bilingual (Hasson, Camiller, Jones, Smith & Dodd, 2013; Lauchlan & Carrigan, 2013). Poehner, Davin and Lantolf (2017) describe the dynamic assessment as an approach that seeks to identify the skills that an individual possesses as well as their learning potential. Due to the disadvantages stated above and the limited possibility of determining the bilingual’s level of proficiency in both languages, there seems to be a need for this dynamic approach to psychological assessment. This approach would alleviate some of the difficulties that are experienced by both the psychologist and the bilingual individuals being assessed.

With the number of bilinguals in South Africa, it is inevitable that psychologists will be working more frequently with bilinguals (Fraser, 2010). It is therefore important that psychologists are sufficiently well informed about the nature of bilingualism and its potential advantages and disadvantages during assessment. As shown above, even though being bilingual may be seen as an advantage, it is one of the sources of linguistic difficulties experienced by some testees and the psychologist. This may be one of the limitations of the use of Western intelligence tests within a diverse population. Another issue of relevance here of which psychologists need to be aware is code switching, as it automatically impacts on the overall assessment process.

2.3.3 The implications of code switching for intellectual assessments.

Myres-Scotton (1993) describes code switching as the mixing of different codes by speakers in the same conversation and this switch may take place at any level of language differentiation (dialects, registers). It has become a universal phenomenon among bilingual speakers in most communities across the world and is known as code switching and code mixing (also referred to as lexical borrowing) (Clyne, 2016). It is argued that both of these phenomena (code switching and code mixing) are manifestations of different communicative strategies (Myres-Scotton, 1993; Clyne, 2016). Clyne (2016) states that code switching focuses on the inter-sentential switching of codes, which consists of borrowing, whilst code mixing focuses on the intra-sentential switching of codes, comprising alternation, insertion and congruent lexicalisation (Clyne, 2016). Both refer to the alternation between two languages in a single discourse, but the switching occurs after a sentence in the first language has been completed and the next sentence starts with a new language whilst in the latter, switching occurs within a sentence (Clyne, 2016). For example, in code switching, an individual who speaks isiZulu would start a sentence off in the isiZulu language then switch to English. Code mixing is when the individual uses the isiZulu and English language in one sentence. Following Myres-Scotton's (1993) argument, the line between code switching and code mixing is not easily drawn. Ndebele (2012) supported this assertion and concluded that code switching encompasses code mixing and authors use the two terms interchangeably, together with the term "lexical borrowing".

Even with the above, code switching is sometimes seen as evidence of internal mental confusion, namely, the inability to separate two languages sufficiently to warrant the description of true bilingualism (Clyne, 2016). Mdlalo's (2013) study provided an in-depth interrogation and critique of the use of Western language assessment tools on populations from indigenous language and cultural backgrounds. Mdlalo's study was culminating in a framework for guiding the adaptation of Western language assessment tools to be culturally and linguistically relevant for the indigenous South African populations on which they are used. In this study, it was concluded that the use of code switching by the children was tactical (Mdlalo, 2013). That is, it was a conversational strategy to compensate for their limited proficiency in English or for conversational repair. Conversational repair refers to changing one's utterance, based on how one perceives the response from the partner in conversation, as indicating a need for clarification (Hayashi, Raymond & Sidnell, 2013). Children's use of code switching reflected the covert linguistic constraints that govern code switching such as the use

of free or bound morphemes (Hayashi et al., 2013). For example, the bound morpheme “mouse” would not be split in use. Changes were only made morphologically where a prefix or suffix was included, e.g., i-mouse. The prefix “i” may be added to the word *mouse* meaning “the” mouse.

Geva and Wiener (2014) argued that one of the reasons behind the use of free or bound morphemes is the major influences of types of communication skills. These communication skills are described through Cummins (1984) theory and include Basic Interpersonal Communication Skills (BICS) and Cognitive or Academic Language Proficiency (CALP). Mdlalo (2013), along with Geva and Wiener (2014), describes BICS as the basic interpersonal skills that are used in day-to-day language. They are usually context-based and informal in nature and are usually used at home, while CALP are the high-level skills that one would use in formal contexts (Cummins, 1984; Geva & Wiener, 2014; Mdlalo, 2013). CALP are skills that are not context-bound and are demanded in a formally structured setting such as school or work. Terms in BICS are simpler to understand and less intimidating than CALP (Geva & Wiener, 2014). Geva and Wiener (2014) further emphasise that through the use of BICS, individuals are able to express themselves in their most natural form. Thus the use of BICS has become more prominent both in the formal and informal setting as it is the most natural form of relating through communication and successfully conveying one’s point (Cummins, 1984; Geva & Wiener, 2014; Mdlalo, 2013).

Psychologists have personally experienced clients using BICS in a more formal setting (Jordaan, 2013). This is evident in therapeutic work and in psychological assessment (Jordaan, 2013). However, CALP skills are consistent with the higher-level skills required for intellectual assessment (Jordaan, 2013). That is, the testees’ need to make the use of CALP to accurately represent their intellectual and academic ability. Relating this finding to the current study, it is important to note that Western intellectual assessment tools use cognitive and academic language as their foundation (Foxcroft & Roodt, 2013). Thus cognitive and academic language proficiency is required during an assessment. CALP is therefore fundamental and is required for a testee to understand and formulate an appropriate cognitive and academic proficient response to the task in the assessment measure (Jordaan, 2013). Gaining CALP is achieved through frequent exposure to a formal context that simulates high-level formal skills that facilitate CALP. However, a lack of such exposure would most likely lead to responses that are consistent with BICS, which could negatively influence the testees’ performance and

inaccurately represent their intellectual ability (Jordaan, 2013).

In such cases, poor performance may not be a true reflection of an individual's intellectual ability but may be a result of the use of language in an informal manner such as language used in an informal context (e.g. in the home). Jordaan (2013) states that this occurs not because the individual does not know the appropriate response, but rather is a result of the language exposure that has led to code switching. A testee may thus know an answer to what they are being asked but not respond appropriately according to the standardised responses in the test manual (Hayashi et al., 2013; Jordaan, 2013). Common responses are related to adding a prefix and/or a suffix to a word (Hayashi et al., 2013). For example, a response would be “uku-count-a” as opposed to “counting”. This response proves that familiarity of the term is present, however, verbalising this term without code switching may be problematic.

In the light of the above, the assessment processes clearly need to accommodate different languages and cultures, including bilingual groups. Unfortunately, the use of standardised Western assessment tools does not accommodate isiZulu bilingual individuals. As explained above, ignoring the influence of bilingualism and code switching may induce negative effects for the testee, which may in turn impact upon the effectiveness of assessment as well as have ethical implications. Another factor that needs as much attention as bilingualism in this context is multiculturalism, which is addressed below.

2.3.4 Multiculturalism.

Multiculturalism is described as the preservation of different cultures or cultural identities within a unified society (Francis, 2010). A multicultural society refers to a population consisting of multiple, diverse cultures (Francis, 2010). In addition to its eleven official languages, South Africa consists of diverse cultures. These cultures differ in their construction and co-construction of knowledge and understanding. As emphasised by Vygotsky (1978), culture plays a crucial role in constructing mutual understanding and knowledge. Given this mutual understanding and knowledge, it is important to consider the effects multiculturalism might have during the administration of Western intellectual assessment tools.

It is clear from the above discussion that multiculturalism has an influence on psychological assessment (Foxcroft & Roodt, 2013). In the latter part of the twentieth century, multiculturalism has become the norm in many countries. Foxcroft and Roodt (2013) state that

attempts have been made to develop psychological assessment tools that were “culture-free” However, it became clear that it is not possible to develop tests free of all cultural influences (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2014). Test developers have thus focused on “culture-reduced” or “culture-common” tests that aim to remove as much cultural bias as possible from the test by including norms that are common across cultures (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2014). Given the reality that most psychological tests have previously been developed using Western concepts of intelligence, the focus of psychological testing thus shifted to cross-cultural test adaptation, by adhering to the Guidelines for Adapting Educational and Psychological Tests released by the International Test Commission (ITC) (Foxcroft & Roodt, 2013; ITC, 2013). These guidelines have become the benchmark for cross-cultural test translation and adaptation around the world (ITC, 2013). Thus with these guidelines in place, non-Western countries are rising to the challenge of not only adapting Western measures for their context, but also developing their own indigenous measures that would be more suited to their cultural context (Foxcroft & Roodt, 2013).

The development and standardization of culture-free or culture-fair intellectual assessment tools is a process that takes years (Hoff & Core, 2015; Foxcroft & Roodt, 2013). Mkhize (2013) states that an alternative is to have multiculturally competent psychologists who are able to show an understanding of diverse cultural issues. Foxcroft and Roodt (2013) state that this this, however, is limited in South Africa, as people are said to be excluded from specific forms of psychological interventions simply on the basis of language (Foxcroft & Roodt, 2013; Mkhize, 2013). The lack of multiculturally competent psychologists who can communicate in various indigenous languages means that psychologists need to learn more about other languages and cultures, during and after their training.

Christopher, Wendt, Mareck and Goodman (2014) postulate that cultural competence is never achieved completely, but it is continuously acquired, because culture is complex and dynamic in each given context. Therefore, there is a constant need for multi-skilled psychologists who can offer psychological services to diverse cultures (Christopheher et al., 2014; Mkhize, 2013). Mkhize (2013) argues that while there are constraints to transforming psychology as a profession and intellectual assessment tools, social conditions and relevant discourses will always exist.

In a different approach, Van de Vijver and Rothman (2004) emphasise the role of acculturation

in assessment in multicultural groups. Acculturation is defined as a multidimensional process consisting of the convergence among heritage-cultural and receiving-cultural practices, values and identifications (Schwartz, Unger, Zamboanga & Szapocknik, 2010). It occurs when an individual or group adapts or borrow traits from another culture. Schwartz et al. (2010) argue that standard procedures must be developed to deal with the multicultural composition of today's societies, where individuals come from various cultural backgrounds and do not have the familiarity with the language and culture of the psychological assessment tool that is part of the assessment. The study by Schwartz et al. (2010) concluded that employing measures of acculturation in multicultural assessment may be the only solution in such multicultural contexts.

Due to the growing dynamics of South African languages and cultures, multiculturalism remains a reality and it has an evident effect in psychological assessment. Culture-free assessment tools are difficult to develop, it is therefore important for psychologists to have contextual knowledge, including knowledge of multiculturalism, to effectively and efficiently carry out their duties. Therefore, multicultural skills are an important part of psychologists' training. This would also assist psychological professionals in understanding how different cultures understand the concept of intelligence.

2.3.5 The cultural conceptions of intelligence.

Not all cultures have the same understanding of intelligence. Intelligence may be understood differently in the Western cultures than in any other culture (Mkhize, 2013). According to Owusu-Anasah and Mji (2013), non-Western intelligence systems can be referred to as indigenous knowledge systems (IKS). African IKS can be described as a body of knowledge embedded in African philosophical thinking and social practices that have evolved over thousands of years (DoE, 2002; Owusu-Anasah & Mji, 2013). Additionally, IKS can be seen as sophisticated arrays of information, understandings and interpretations that guide human societies when they interact with the natural milieu (Mkhize, 2013). This can also be viewed as a way in which people understand themselves as individuals belonging within a specific culture. Through philosophical practices and guided interpretations, an individual is able to form an understanding of what intelligence is in context (Mkhize, 2013). Test developers, however, do not take IKS into consideration when they develop tests (Foxcroft & Roodt, 2013, ITC, 2013). That is, the construct that is being measured is not meaningful for the body of knowledge embedded within each cultural group.

Moreover, Mphahlele (2002) argues that a culture exists at various levels, some of which are much more open to change than others. Methods of cooking, dressing, working and use of technology can perhaps change fluidly, but deep beliefs and ways of thinking might change to a far lesser extent (Idang, 2015). That is, cultures have different ways in which they do things as well as understanding concepts of the world such as intelligence. For example, in the isiZulu culture, it may be considered intelligent for a woman to be able to cook, clean and look after her household, while for a man, it would be providing for his household (Idang, 2015; Mphahlele, 2002). While these beliefs may hold true in the rural areas from which the individual originates, urban areas and the influence of Westernised/modern society have resulted in changes regarding this belief (Idang, 2015). Even with the exposure to different Western beliefs and values, the minor changes that are made by the individual need not be in the way of assimilation (Nomlomo & Sosibo, 2016). For instance, individuals who are from remote areas who are now part of the modern society may change the way in which they dress, cook and work, but they still hold to their core beliefs (Idang, 2015; Mphahlele, 2002; Nomlomo & Sosibo, 2016). In this scenario, an individual takes in and understands the culture whilst still considers knowledge according to their cultural foundation – which, according to Mphahlele (2002) and Mdlalo (2013), is “modernisation”, and not necessarily “Westernisation”.

Given the fundamental role of the modernisation, it is necessary for psychological practitioners to acknowledge the importance of the different cultural conceptions of intelligence (Christopher et al., 2014). Such realities should be especially considered when conducting intellectual assessment, as these various understandings may influence the outcomes of the assessment. For example, Norman (2011) notes that the utilisation of intellectual assessment tools that are developed largely for the United States (US) or United Kingdom (UK) populations may negatively impact the intellectual performance of an individual coming from other, culturally different settings, thus inhibiting them from applying “their own frame of reference”. Such an assessment can possibly create a generation of questionable findings. In other words, the intelligence measured using an assessment tool with which a testee cannot relate may culminate in inaccurate assessment results, which further disempowers and disadvantages the testee (Mdlalo, 2013; Norman, 2011). Consequently, a problem that does not exist may be identified based on these results and used as a basis for intervention, referral or access to resources and institutions which is neither appropriate nor ethical (Foxcroft, 2011;

Mdlalo, 2013; Norman, 2011).

Du Plessis (2010) has criticised Western intelligence tests because of their linguistic and cultural bias, as well as their disproportionate representation of different languages and cultures. As explained above, South African cultures each have their unique way of understanding intelligence. Therefore based on the above argument, Western assessment tools cannot effectively represent the intelligence of an individual who is from a diverse cultural background, owing in some part to the differences in understanding the construct of intelligence. The rationale of the intellectual construct will be discussed below in more detail in terms of psychological assessment.

2.4 Psychologists' Understanding of Intelligence and How it is Measured

Intelligence tests are measures of general intellectual functioning, and have been used for almost a hundred years (Bethlehem, De Picciollo & Watt, 2003; Foxcroft & Roodt, 2013; Rust & Golombok, 2014). However, given the different meanings of intelligence within South Africa's diverse cultural populations, there is still an argument among psychologists about what intelligence really is. Nevertheless, it is evident that intellectual assessment has a drastic impact on an individual's life. As indicated above, the assessment outcomes are used as guidelines for educational, career and social paths (Foxcroft et al., 2004; Laher & Cockcroft, 2013). Critics have stated that intellectual assessment measures are too dependent on language and verbal skills and are not appropriate for individuals who are from a diverse cultural and linguistic backgrounds (Bethlehem, De & Watt, 2003; Christopher et al., 2014; Foxcroft et al., 2004; Laher & Cockcroft, 2013; Setshedi, 2008). As such, the continued use of these intelligence tests cannot be ignored.

Due to South Africa's linguistic and cultural diversity, intelligence has no fixed definition (Foxcroft & Roodt, 2013). Therefore, its measurement may not be as clear cut as other measurement for constructs such as scholastic achievements (Foxcroft & Roodt, 2013; Mkhize, 2013). As such, Foxcroft and Roodt (2013) state that psychologists still do not agree on how to define and explain intellectual functioning or how it should be measured. This according to Mkhize (2013), complicates efforts in trying to understand the construct of intelligence.

Moreover, Vernon (2014) states that psychologists vary in their view of intelligence possibly because of exposure and experience. In psychometric assessment, psychologists base their view

of intelligence on how it can be successfully measured through the use of intellectual assessment tools. These tools have a narrow focus of what intelligence is and how it is measured (Vernon, 2014). Here, psychometric intelligence is measured and defined as behaviour from a limited sample of people being assessed (Foxcroft & Roodt, 2013). If this behaviour is not reflected within these tools, then inaccurate results are obtained, which misrepresents an individual's true intelligence. As stated above, each linguistic and cultural group has their own way in which they understand and measure intelligence (Mdlalo, 2013; Norman, 2011). Therefore, the role of language and culture should be considered in determining psychometric intelligence through the use of intellectual assessment measures.

2.5 The Role of Language and Culture in the Assessment of Intelligence

There are a number of issues that affect intellectual assessment results. These are factors that are related to the biographical context, intrapsychic context and social context (Foxcroft & Roodt, 2013). Specific to this study, biographical factors which include language and cultural factors play a crucial role in the assessment process. The problem of linguistically and culturally relevant assessment tools is universally acknowledged (Laher & Cockcroft, 2014). South Africa, as already pointed out, is a multilingual and culturally diverse country, which presents a unique challenge when conducting intellectual assessment on diverse individuals. This is because the available assessment tools are predominately normed on the Western population and do not cater for this diversity (Foxcroft & Roodt, 2013; Mdlalo, 2013). Language and cultural difficulties are limitations that most diverse groups experience when being assessed using intelligence tests that have been developed using Western standards of intellectual functioning. This is not only a challenge to the individuals being assessed but it is equally a challenge to the psychologists in deciding which language of assessment to use.

2.5.1.1 Deciding on which language of assessment to use.

The above challenge makes deciding on the most suitable language of assessment difficult for most psychologists (Foxcroft & Roodt, 2013). Firstly, if an individual's first language is isiZulu, but they have been receiving formal education in English, then assessing them in their first language could be both an advantage and a disadvantage. Such a situation, according to Foxcroft and Roodt (2013), may result in a double disadvantage due to their competence in both languages being compromised. While the testee may have some knowledge of English, this knowledge may not be as proficient as required for the psychological test. This may have an impact on the testee's performance and may mask the actual ability that the measure is

designed to assess (Foxcroft & Roodt, 2013). Another challenge that psychologists have experienced is the combination of languages referred to as “township patois”, where a pure version of one language is not spoken (Foxcroft & Roodt, 2013; Hurst, 2015). This form of language is mainly used in the residential areas surrounding cities, and may put a testee in a disadvantaged position if assessed with a formally translated measure. The above are the two most evident challenges experienced by psychologists when deciding on the most suitable language of assessment.

This issue is important because, according to Foxcroft and Roodt (2013), language is usually regarded as the most important single moderator of performance on assessment measures. Thus poor performance on assessment measures could possibly be the product of language difficulties rather than ability factors if an assessment is administered in a language that is not the testee’s first language (Foxcroft & Roodt, 2013; Foxcroft et al., 2009). When assessed in a language other than the first language, it may take longer to process the material in the second language, even if the testee has working knowledge of that specific language. Hurst (2013) emphasises that people think and converse in their own language therefore in the same way – and putting the problem of “township patois” aside – people usually perform better in an assessment tool that is developed and standardised in their home language rather than their second language. Foxcroft (2011) states that in this way, language becomes a potential source of bias. Assessment tools administered in a language that is different from the testee’s first language may present a range of concepts that are not accessible in their home language. A study conducted by Kashima and Lan (2013) concluded that testees must be assessed in the language to which they have frequent exposure. Gottfredson and Saklofske (2009) further state that an intellectual assessment tool that is not administered in the testees’ home language is considered as biased and is by no means beneficial in this instance. Lambert (2014) supports this assertion, emphasising the importance of developing of assessment tools in a testee’s mother tongue.

Laher and Cockcroft (2013) thus suggest that translating psychological tests may be viewed as a solution. Doing so may, however, have additional difficulties (Borman, Sevcik, Romski & Pae, 2010). These difficulties are based on the fact that some languages do not use the expressions or concepts required by tests, and thus an equivalent form of the test cannot be translated (Foxcroft & Roodt, 2013; Foxcroft et al., 2009). For example, verbal subtests cannot be merely translated into another language, as the words and concepts may not be of the same

level of difficulty in the two languages (Foxcroft & Roodt, 2013).

These factors contribute to the argument amongst psychologists regarding what intelligence is and how it can be successfully measured. Even though studies confirm that verbal subtests should be assessed using English and non-verbal subtests (sociocultural factors) should be assessed in the testee's home language, there should be consistency in the language that is used in assessing individuals (Bornam et al., 2010). This inconsistency is one of the challenges that is experienced by diverse language groups. Another challenge is presented by culture, which has a major influence on the way in which one learns, thinks about general concepts and behaves.

2.5.1.2 The cultural influence on intellectual assessment.

Culture is part of what makes up an individual and therefore cannot be seen as a separate factor. Similar to what Vygotsky (1978) emphasises in his sociocultural theory, Foxcroft and Roodt (2013) state that culture is an integral part of the environment which an individual occupies. As such, culture shapes many aspects in an individual and influences the meaning of events for that individual. Thus during assessment procedures, the testee's responses may be different from what the standardised test expects as they may be based on their cultural understanding (Vygotsky, 1978). Cultural differences need to be taken into consideration when administering and interpreting assessment measures.

The content of any psychological measure will reflect the culture of the people who had initially designed the measure and the population for which it is intended (Foxcroft & Roodt, 2013). People who do not share the same culture as those who developed it will therefore be at a disadvantage when being assessed with that measure. To illustrate this fact, Malda, Van de Vijver and Temane (2010) developed a cognitive assessment tool where the items were equally drawn from the Xhosa and Tswana cultures. These two versions of tests were administered to samples of Afrikaans- and seTswana-speaking children, and the results demonstrated that the children performed better on the test that was developed for their cultural or language group – specifically when the test assessed more complex functions such as intelligence (Malda et al., 2010). The results from the study support the claim that when an assessment tool is administered to a person who does not share the language or culture of the people who developed it and the country in which the assessment tool was standardised, then they are disadvantaged, particularly when complex phenomena such as intellectual functioning are

measured. Therefore, psychologists should always be cautious in the use of such intellectual assessment tools (Foxcroft & Roodt, 2013). The assessment results may not be a true reflection of the person's level of functioning due to the influence of cultural factors.

Taking into consideration the number of different cultures in South Africa, there is also a concern regarding acculturation (Schwartz et al., 2010). Acculturation may occur, for example, when people move from rural areas to urban areas (Schwartz et al., 2010). There might be a change in an individual's cultural understanding and behaviour, such no longer ascribing to certain values associated with a more traditional way of life and adopting a more Western/modern way of living (Nomlom & Sosibo, 2016). However, these changes may not take place at the same pace. For example, having lived in a Western/modern community for a long period of time, an individual may still consult with a traditional healer as opposed to a psychologist (Foxcroft & Roodt, 2013). In the same way, intelligence may be understood and measured through skills as opposed to academic performance (Idang, 2015). Laher and Cockcroft (2014) thus state that acculturation has important applications for performance on assessment measures because of the impact of the familiarity with the culture on which the measure is based. The closer an individuals' personal values and practices are to the culture, the more appropriate the measure (Schwartz et al., 2010). In contrast, the further an individual's personal values and practices are to the culture, the more inappropriate the measure (Schwartz et al., 2010). In the context of South Africa, difficulties may still be experienced by individuals who are from indigenous language and cultural backgrounds when being assessed using Western intellectual assessment tools. While acculturation may be present, it does not indicate full adoption of the culture. Thus intelligence may not be successfully measured using the available intellectual assessment tools. It may be that performance on current Western intellectual assessment measures is based on the length of exposure to the Western culture and the level of acculturation.

Once again, the results of psychological assessment tools have an important role as they determine the suitability for certain milestones in a person's life, yet these results may be compromised by the unavailability of appropriate and effective assessment. Furthermore, the development of new assessment measures is a difficult task, as explained above, and a single intelligence test cannot effectively measure intelligence of linguistically and culturally diverse populations. This may lead to some difficulties in adhering to the ethical and legal regulations of such assessment.

2.6 The Ethical and Legal Regulation of Psychological Assessment in South Africa

In South Africa, psychological assessment and practice are regulated by law and ethical codes (Laher & Cockcroft, 2013). Ethical in this sense does not only mean good behaviour, but also involves thorough knowledge of legislation pertaining to psychological assessment (Laher & Cockcroft, 2013). Literature suggested that psychological assessment practitioners should develop an ethical conscience with sufficient understanding of the relevant ethical codes and standards of conduct (Christopher et al., 2014; Foxcroft & Roodt, 2013; Mkhize, 2013). To be ethically conscious means demonstrating a thorough understanding of not only the legislation governing assessment practices, but also of relevant ethical codes and standards of conduct (Laher & Cockcroft, 2014). The South African ethical and legal regulation of psychological assessment specifically involves the joint consideration of three areas, namely; a code of conduct, a specification of standard practices and sufficient knowledge of legislation (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2014). For the purpose of this study, it is important to consider these areas when understanding the influence of indigenous languages and cultures, specifically the isiZulu language and culture, on intellectual assessment and how such issues could affect their performance. Thus the code of conduct as well as the legislation relevant to psychological assessment will be discussed below.

2.6.1 The Health Professions Council of South Africa and the International Test Commission.

It is important to take into consideration the regulations under which psychologists operate as provided by the HPCSA (HPCSA, 2014). The Professional Board for Psychology within the HPCSA is the single national statutory body responsible for *inter alia* classifying, registering and reviewing the use of psychometric and psychological tests, questionnaires, apparatus and instruments used to determine the following: intellectual ability, personality, aptitude, psychophysiological functioning and psychopathology (Foxcroft & Roodt, 2013; HPCSA, 2014). There are processes that have to be followed and standards that have to be met when psychological tests are classified, registered and reviewed before they can be used for the above-mentioned purposes. It is thus for this reason that the development of culture-fair tests is not simple, and the use of the available Western assessment tools is one of the alternatives in line with the ITC guidelines. The ITC has a set of International Guidelines for Test Use which were adopted by the HPCSA (HPCSA, 2010; ITC, 2013). The ITC is committed to promoting effective testing and assessment policies and the proper development, evaluation

and uses of psychological instruments (HPCSA, 2010; ITC, 2013). Yet, according to Foxcroft (2011), adherence to the above guidelines provided by the ITC of the evaluation and the use of psychological tools is a challenge and poses an ethical issue that most practicing psychologists find difficult to overcome (Levin & Buckett, 2011). Thus it is an experience that affects the use and interpretation of psychological tools. This heavily implicates on the ethics, policies and laws that are crucial in the administration of psychological assessment measures.

One such difficulty is that to promote South Africa's linguistic and cultural diversity, there are ethical requirements for the assessment of individuals from diverse linguistic and cultural backgrounds. These ethical requirements reflect the ideal principles and standards set by professionals rather than the principles set by society (Poh Yee, 2013). As such, the practising psychologist has an ongoing challenge of remaining relevant to the new South Africa while using the standardised, Western assessment tools (Foxcroft, 2011; Mkhize, 2013). This is difficult for the psychologist and could potentially lead to ethical challenges in the administration of intellectual assessment tools.

2.6.2 Ethical challenges in the administration of intellectual assessment tools.

Ethics are moral principles that govern a person's behaviour – in this case, psychological professionals' behaviour (HPCSA, 2014). The HPCSA has published ethical codes to which a psychologist must adhere when administering psychological tests. During the administration of intellectual assessment tools on individuals from diverse linguistic and cultural backgrounds, it is particularly important for the psychologists to keep up to date with the ethical codes that are in place (Foxcroft & Roodt, 2013). The Ethical Rules of Conduct for Practitioners Registered under the Health Professions Council (Annexure 12) are vital for psychologists and their practice, especially in South Africa (HPCSA, 2014). Under chapter five of this ethical code, there are guidelines that are important for conducting psychological assessment, such as those pertaining to avoiding harm, informed consent, confidentiality and fair use of assessment for psychological assessment activities.

A study that was conducted by Levin and Buckett (2011) explored the discourses regarding ethical challenges in assessments. The results show the ethical challenges to be; confidentiality, using people who are not properly trained or only partially trained, technology, language and culture and research. Based on these ethical challenges, Cooper (2012) mentioned that psychologists experience further difficulties in adhering to the ethical codes. Avoiding harm

and fair use of tests seem to be challenges that are often experienced by psychologists (Foxcroft, 2011; Levin & Buckett, 2011). Hypothetically speaking, these may also be some of the challenges that are experienced by psychologists in this study, as a result of the growing South African diversity (Nortjie & Hoffmann, 2015). Similarly, the lack of appropriate resources along with outdated tests to meet this growing diversity are additional contribution factors (Foxcroft, 2011; Nortjie & Hoffman, 2015).

Another ethical challenge that is faced by most psychologists is access to the appropriate assessment tools. Foxcroft et al. (2004) conducted a needs analysis on the test-use patterns and needs of psychological assessment practitioners. They found that among the challenges facing by psychologists is the need for them to access high-quality assessment tools. The results demonstrated only an adequate availability of these high-quality assessment tools. Foxcroft and Roodt (2013) added that these such assessment tools are also available in South Africa, but they are not appropriate for the diverse South African population. That is, there is access to intellectual assessment tool, however, they are not relevant. This problem makes it difficult for psychologists to avoid causing harm and ensure the fair use of assessment guidelines (Foxcroft & Roodt, 2013).

In South Africa, practitioners may also be faced with the ethical challenge of assessing individuals who have never before been exposed to psychological assessment tools. According to Laher and Cockcroft (2014), assessing diverse individuals who have limited exposure to intellectual assessment tools is considered to be unfair, and is an ethical issue. Psychologists therefore need to be flexible in ensuring the ethical and fair use of assessment tools (Foxcroft, 2011; Mkhize, 2013). This can be achieved through the practitioner replacing one form of the assessment with a suitable alternative (Moerdyk, 2009). This practice is referred to as dynamic assessment, and has been considered as the most suitable alternative. Foxcroft and Roodt (2013) mention that replacements may be possible when assessing other domains (such as personality or behaviour), but doing so poses a challenge when assessing intelligence. It is not easy to replace one form or a part of an intelligence tests without being unethical and compromising the overall standardised procedures. It is for this reason that intellectual assessment should never be used in isolation.

There are clearly a number of challenges that face the field of psychological assessment that should be addressed if it is to progress and make a significant contribution to the discipline and

the country (Laher & Cockcroft, 2014). The most prominent ethical code guidelines to overcome these challenges are avoiding harm and fair use of assessment tools. These are particularly important in this study and equally important responsibilities that practicing psychologists have. Moreover, even though high-quality intellectual assessment tools are available, they are not relevant to all individuals, thus psychologists have to adhere the above guidelines. Legislation is important to consider here, and will be discussed below.

2.6.3 Legislation in psychological assessment.

There are policies and legislation that are in place in South Africa to uphold the value and support the use of psychological assessment tools on its people. These may be seen as a standard set of laws pertaining the use of psychological assessment tools in the diverse South African population (Foxcroft & Roodt, 2013; Laher & Cockcroft, 2014; Moerdyk, 2009). Having knowledge and understanding of all forms of legislation related to psychological assessment is important because the psychology profession does not operate within a vacuum, but within a larger context (Laher & Cockcroft, 2014). Knowledge of legislation such as the Health Professions Act (No. 56 of 1974), the Children's Act (No. 38 of 2005), the Employment Equity Act (No. 55 of 1998) and the South African Schools Act (No. 84 of 1996) is essential when administering intellectual assessment measures. These acts work together in promoting the avoidance of harm and maintaining linguistically and culturally fair assessment tools (Laher & Cockcroft, 2014). They support the argument in the previous section regarding the challenge that South African psychologists experience in using Western intellectual assessment tools on individuals who are from a diverse culture and linguistic background and are discussed individually below.

In South Africa, the Health Professions Act (No. 56 of 1974) in particular, specifies the boundaries of competence for those who conduct psychological assessment (RSA, 1974; as cited in Laher & Cockcroft, 2014). The Health Professions Act is applicable to all forms of psychological assessment procedures (Laher & Cockcroft, 2014). According to the HPCSA (2013), there are a number of conditions that need to be met before individuals commence an assessment. These conditions include the test being categorised by the Psychometric Committee of the Professional Board for Psychology as a measurement instrument that may be administered by registered psychologists. Another condition that needs to be met is competency. Before conducting an assessment, the assessment administrator must have received appropriate training and achieved the minimum competencies required to use the

assessment measure (HPCSA, 2010). However, it is argued that the extensive training that psychologists receive may not be sufficient, hindering the appropriate administration and interpretation of intellectual assessment tools (Christopher et al., 2014; Foxcroft, 2011; Levin & Buckett, 2011). Exploring psychologists' experiences relating to how limited training negatively affects the administration and interpretation of the assessment will be addressed in this study. It can be hypothesised that the training in which psychologists receive is appropriate for the Western language and culture but does not consider other diverse languages and cultures, which may lead to negative interpretation of the intellectual assessment results.

The Children's Act (No. 38 of 2005) stipulates that in using assessment tools, it is important that the child's best interest is taken into consideration. Conducting psychological assessment with children is a complicated process, and most intellectual assessment tools are conducted within the educational context (Foxcroft et al., 2004; Laher & Cockcroft, 2014). It is important that psychological tests that are appropriately developed for children are used. In ensuring that the correct test is used, psychologists are acting in the best interest of the child. Moreover, psychologists need to take language and culture into consideration. Such precautions are exceptionally important, particularly for those children who are in the foundation phase. Setshedi (2008) raises a concern regarding the available intelligence tests not being linguistically or culturally fair, especially during the child's early years. The use of unfair or unsuitable tests could result in labelling and stigmatization.

The Employment Equity Act (No. 55 of 1998) aims at achieving equity in the workplace. According to the act, such equality is achieved by the following: promoting equal opportunity and fair treatment in employment through the elimination of unfair discrimination, and implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups (RSA, 1998). According to section 8 of this act, the use of psychological testing and other similar assessment tools on employees is prohibited, unless the measure has been scientifically shown to be valid, can be applied fairly to all employees and is not biased against any employee or group (RSA, 1998). This section further provides psychologists with specific guidelines on what is deemed fair use of assessment in industrial and organisational contexts as well as other related contexts (RSA, 1998). Even with these guidelines, Hoff and Core (2015) mention that psychologists are still faced with critical challenges in the use of intellectual assessment measures in the workplace. These challenges include the biased nature of the available intellectual assessment tools, especially in the

workplace where the assessment tool is specifically used for selection and development of human resources. The results may be misinterpreted and lead to inaccurate or ineffective selection and development of human resources. Paterson and Uys (2005) state that these challenges could be solved through the development of new, appropriate assessment tools or the adaptation of existing assessment tools. This is a matter of ongoing debate in South Africa and a consideration in the current study.

2.7 Conclusion

The linguistic and cultural diversity in South Africa is vast. This includes, but not limited to, language acquisition, bilingualism, codeswitching and multiculturalism. Each diverse group is unique in the above thus cannot be assessed in the same manner. Vygotsky's theory states, the development of intelligence is based on the zone or context to which an individual has had continuous exposure. Therefore the use of Western intelligence tests is only appropriate for those individuals who have been exposed to Western culture, and is ineffective on those who have not had such exposure. In the context of this study, the testees' from an isiZulu linguistic and cultural background do not define intelligence based only on academic or social performance, but also on certain skills. Thus using Western assessment tools may be ineffective and unfairly represent the abilities for this population.

Due to the linguistic and cultural implications on the assessment process and results, psychologists continue to struggle with choosing the appropriate assessment tool. Furthermore, the training of psychologists does not appropriately or fully consider the country's diversity. Some of the literature discussed in this chapter has shown that although attempts have been made to accommodate South African diversity through the development and adaptation of assessment tools, there is still a gap in ensuring that intelligence tests used are appropriate for the assessment of individuals from non-Western backgrounds – especially, in the context of this study, an isiZulu linguistic and cultural background.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter will discuss the methodology that was adopted for the current study. The purpose of this study was to gain an understanding of psychologists' perspectives regarding the influence of the isiZulu indigenous language and culture on intellectual assessment. This study therefore employed an interpretive approach to research. This approach does not rely on analysis alone, but rather puts analysis into context – i.e. to understand the world from the subjective experience of an individual (Thomas, 2010). This approach was successfully achieved in this study through a qualitative research design. The first two sections of this chapter will elaborate on the theoretical base of the interpretivist research paradigm. The subsequent sections will then discuss sampling, data collection, the process of transcription, data analysis, limitations, as well as issues pertaining to credibility, dependability and transferability.

3.2 Interpretivist Research Paradigm

This study made use of the interpretivist research paradigm. The interpretive approach to research is linked to Vygotskian sociocultural theory, and is based on the belief that reality consists of people's subjective experiences of the external world (Bryman, 2004; Daniels, 2016; Vygosky, 1978). This paradigm emphasises the need to place analysis in context (Silverman, 2010, Thomas 2010). As such, the interpretive paradigm is concerned with understanding the world as it is from subjective experiences of individuals. Based on the interpretivist approach, subjective experiences are real and should be taken seriously so that others' experiences can be understood through interaction and listening to what people narrate (Terre Blanche, Durrheim & Kelly, 2006). Interpretive research therefore aims at describing what it sees in rich detail and present its findings in an engaging and evocative language.

In this study, the interpretive research paradigm was used to understand the subjective experiences of psychologists who have used intellectual assessment tools on diverse individuals. Meaning-oriented methodologies were therefore used to obtain this understanding (Terre Blanche et al., 2006). These methodologies aimed at obtaining the perspectives of participants through interviewing, which in turn relied on a subjective relationship between the researcher and the participant (Bryman, 2004). The researcher did not predefine variables, but

focused on full complexity of human sense-making as the social situation emerged (Bryman, 2004; Terre Blanche et al., 2006; Thomas, 2010). Overall, using the interpretive research paradigm, the researcher aimed at explaining the subjective reasons and meanings that lie behind social action, i.e., intellectual assessment (Thomas, 2010).

Since this paradigm sought to make sense of experiences, social situations or phenomena as they occur in the real world, it was vital for the researcher to work with data within its context (Terre Blanche et al., 2006). Interviews were used to collect the data, and thematic analysis was used to analyse the data collected.

3.3 Research Design

According to Bryman (2004), a research design can be described as a plan that guides the arrangement of conditions for collection and analysis of data in a way that aims to combine relevance to the research purpose with economy in procedure. Terre Blanche et al. (2006) define a research design as a strategic framework for action that serves as a bridge between research questions and the implementation of the research. It is the uniquely designed plan that distinguishes research from other forms of research (Bryman, 2004; Terre Blanche et al., 2006).

Since the current study employed the interpretivist research paradigm, a qualitative research design was adopted. Qualitative research can be defined as the interpretive study of a specific issue or problem where the researcher is central to the sense that is being made (Bryman, 2004; Camic, Rhodes & Yardley, 2003; Terre Blanche et al., 2006). It focuses on both the context and the integrity of the given material, and is aimed at gaining a detailed understanding of a specific event in context, rather than a surface description of a large sample of a population. It aims to provide an explicit rendering of the structure, order and broad patterns found among a group of participants through generating data about human groups in social settings (Banister et al., 1995; Thomas, 2010; Terre Blanche et al., 2006). Additionally, qualitative research aims to obtain a better understanding through first-hand experience, truthful reporting and quotations of actual conversations (Banister et al., 1995; Bryman, 2004; Terre Blanche et al., 2006). In sum, qualitative research is exploratory research, which aims at understanding how the participants derive meaning from their surroundings, and how their meaning influences their behaviour.

The current research aimed at exploring psychologists' perspectives regarding the use of

intellectual assessment tools. The qualitative research design was used to focus both on the context and aimed to ensure the integrity of the data that collected. This research design helped the researcher to gain a detailed understanding of the psychologists' perspectives and their experiences when assessing individuals who are from diverse cultural backgrounds. The nature of this study allowed the researcher to obtain understanding through first-hand experiences and truthful reporting.

3.4 Sampling

Sampling is the process whereby a researcher chooses their required sample (Terre Blanche et al., 2006). This is not a simple process as there are set steps that help a researcher choose a good sample. These steps are identifying the following; a population of interest, a sampling frame, a sampling method and sample size, which will be discussed below (Bryman, 2004).

This study sought to recruit psychologists, intern psychologists and psychometrists who are registered with the HPCSA. Non-probability sampling was used, which includes sampling methods that do not use any form of random sampling (Bryman, 2004). That is, some units in the population were more likely than others to be selected (Bryman, 2004; Camic et al., 2003). Purposive sampling was used in recruiting the participants for the proposed study (Bryman, 2004; Camic et al., 2003; Thomas, 2010). It is a non-probability sample that was selected based on characteristics of a population and the objective of the study. This method is essentially strategic and entails an attempt to establish a good correspondence between the research questions and sampling (Bryman, 2004). Participants had to meet the following inclusion criteria to participate in the study:

- a) have been practicing for 3 years or more;
- b) have experience in using intellectual assessment tools in 3 years or more; and
- c) have experience with assessing clients who speak isiZulu as their home language.

Six registered psychologists were approached based on the above criteria. This was because based on the HPCSA, for one to be able to supervise a psychological practice, they must be registered as a professional for three years or more (HPCSA, 2014). The list of registered psychologists that was available on the HPCSA website was used to obtain contact details and registration status of potential participants. The study did not focus on one registration category, i.e., clinical, educational and counselling categories were all considered. The

potential participants were contacted by email and post, with a request for their participation in the study. The letter requesting participation was accompanied by a pre-questionnaire that was used for screening purposes (Appendix 1). Thereafter, a formal invitation to the interview sessions was sent to the consenting psychologists who met the inclusion criteria, offering possible dates and times for the interviews.

Two out of six psychologists responded to the emails sent and were willing to be part of the study. This number was unfortunately below the required sample for this study. Thus further sampling needed to be done, and an additional psychologist was recruited. This led to the sample group being three out of six psychologists. Psychologists are particularly difficult to recruit in Pietermaritzburg, where the study was conducted, due to the limited number of psychologists and their busy schedules. As a result, further sampling was done to recruit intern and post intern psychologists (in the educational and counselling registration categories). The intern psychologists that were selected met the following inclusion criteria to participate in the study:

- a) have either completed their first year of Master's or both their first and second year of Master's;
- b) have administered an intellectual assessment tool more than 3 times during their first and second year of Master's; and
- c) have experience with assessing clients who speak isiZulu as their home language.

Three intern psychologists agreed to be part of the study. The total sample size for the current study thus comprised three psychologists and three intern psychologists. The details of the participants are provided in the table below.

Table 1

Details of the Participants

	Gender	Race	First language	Psychologists or Intern Psychologist
Participant 1	Female	White	English	Intern Psychologist
Participant 2	Male	Black	isiZulu	Psychologist
Participant 3	Female	Black	isiZulu	Intern Psychologist

Participant 4	Female	White	English	Psychologist
Participant 5	Female	Indian	English	Intern Psychologist
Participant 6	Female	White	English	Psychologist

3.5 Data Collection

Data collection is a critical aspect of the interpretivist process of qualitative research. It is the stage at which data is successfully collected to achieve the objectives of the study. Based on interpretive research, the data needs to be worked with in context; this was achieved through conducting individual interviews (Bryman, 2004; Thomas, 2010). Conducting an individual interview is both a complex and informative process. It gives the researcher an opportunity to get to know the participant and their experiences quite intimately (Bryman, 2004; Terre Blanche et al., 2006). There are four reasons for conducting an interview, which are; a) to obtain subjective meaning; b) to explore issues that are too complex to investigate through quantitative means; c) to contribute to research involvement and practice; and d) to make the researcher's work visible in answering the research questions (Bryman, 2004; Terre Blanche et al, 2006). The above mentioned reasons assisted the researcher in reaching the objectives of the current study as participants' subjective responses were required.

Due to limited research that has been conducted addressing linguistic and cultural issues in intellectual assessment, interview questions that were used for a study on language assessment were adapted for this study and were used to achieve the overall objectives (see interview schedule, Appendix 2) (Foxcroft & Roodt 2013). The interviews were conducted in English; the questions posed during the interview were semi-structured and were adapted from the study conducted by Mdlalo (2013). Mdlalo's study explored the use of an English language assessment tool on South African English additional language (EAL) speakers from an indigenous linguistic and cultural background. It yielded results that confirmed stipulations in the literature which demonstrate that despite the growing awareness on diversity, the need for assessment tools that take all aspects of diversity into consideration continues to be a challenge.

For the purposes of this study, the interview questions were adapted so that they could be easily understood by both the researcher and the participants (Appendix 2). According to Banister et al. (1995), semi-structured interviewing refers to a context in which an interviewer has a series of questions that are in a general interview form, but she is able to vary the sequence of

questions. The questions were asked on a more general basis than found in a structured interview. This approach provided the researcher with opportunities to ask further questions in response to participants' responses. The overall aim of using semi-structured interviews was to explore areas perceived by the interviewees as gaps, contradictions and difficulties in relation to the research questions (Banister et al., 1995; Bryman, 2004).

3.5.1 Procedure.

According to Banister et al. (1995), semi-structured interviews, like structured interviews, have a set procedure. That is, the researcher has a set of questions to which interviewees need to respond (Banister et al., 1995; Bryman, 2004). This is to obtain the information that is required to successfully meet the objectives of the study. Even though there were a series of questions that were asked, the questions varied in sequence in each interview session. Likewise, the responses also varied based on the experience of the interviewee. All interview sessions were scheduled on different days, according to the availability of the participants. Even though each interview session had its own unique procedure, the sessions followed the same general structure, which was a standard interview setting, the use of a recording device and a set of questions.

The interview sessions began with a standard introduction explaining who the researcher is, the research at hand and why their participation is of importance. The participants were requested to sign an informed consent form, which explained confidentiality (Appendix 3). The length of each session varied from twenty-five minutes to thirty-eight minutes, depending upon the knowledge and experience of the interviewees. Additionally, the researcher probed further based on the interviewee's responses, which generated further answers. After each interview session, participants were asked if they had additional information that they would be willing to share or any further questions. The participants were then thanked and assured that the results would be communicated to them. Each session was recorded for transcription purposes.

Even though rapport was built through the appropriate introduction, each session had different forms of transference – that is, the interviewer's emotions that were evoked by interviewee differed, which guided the overall interview session. Some sessions evoked fear in the interview, which made the interview session somewhat difficult, whilst others were comfortable and evoked positive emotions.

3.6 The Process of Transcription

It was anticipated that it would be very difficult to record the participants' verbatim responses on paper and in real-time. For this reason, each interview session was audio recorded. Consent for audio recording was obtained from the participants before the session began, where they were required to sign a standard informed consent form that gave the researcher permission to record the session, and on which the limits to confidentiality were stipulated (Appendix 3). Transcription is a central practice of qualitative research and involves a close observation of data through repeated careful listening (Davidson, 2009). This step is important in qualitative research, involving careful analysis and further interpretation of the data obtained (Davidson, 2009). Transcription is therefore best done directly onto a word processor to facilitate the moving around of data (Terre Blanche et al., 2006). Transcribing everything is usually more important rather than deciding which data is relevant. As such, process notes were made immediately after the interview. The dependability of each transcription was ensured by reading through the data while listening to the recording (Bryman, 2004; Terre Blanche et al., 2006).

The researcher took the responsibility of transcribing the data to ensure accuracy. The researcher followed Halcomb and Davidson's (2006) six steps to transcribing interview data. Step one involved the general process of recording the interview session while taking notes. Taking notes allowed the researcher's impressions of the interview to be recorded rather than having verbatim recordings of the participant's response (Halcomb & Davidson, 2006). Whilst taking notes, transcription symbols were used to better indicate the interaction between the participant and the researcher (Table 2). Immediately after the interview, the process notes were reviewed by the researcher whilst their impressions of the interaction was expanded. Thereafter, the audiotape was reviewed in consultation with the researcher's notes, which ensured that there was an accurate reflection of the interaction. Once the researcher was confident about her field notes, preliminary analysis took place (Halcomb & Davidson, 2006). This elicited common themes between interactions. Lastly, the secondary analysis was undertaken through thematic analysis to establish further common themes.

Table 2

Transcription Symbols

	Meaning	Symbol	Comments
Pause	Pause, untimed	...	0.2 seconds or more
Boundary tone/closure	Continuative	,	Intonation morpheme signalling continuation (comma)
	Terminative	.	Intonation morpheme signalling finality (period)
Dysfluency	Truncated/ cut-off word	-	Aborting projected word (dash)
Vocalisms	Exhale	(Hx)	Audible exhalation
	Laugh	@	One per pulse or particle of laughter
	Vocalism	(COUGH) (AHEM) (UHMM)	Various notations

3.7 Data Analysis

Thematic analysis was used as means of analysing the data that was obtained for the study. Thematic analysis is consistent with the interpretivist paradigm as it focuses on what was said rather than how it was said (Bryman, 2004). It is the most common form of analysis in qualitative and interpretive research and provides detailed analysis through breaking up the data in a constructive manner (Braun & Clarke, 2006; Bryman, 2004). Throughout this process, thematic analysis emphasises pinpointing, examining and recording patterns (or themes) within data. Themes are the patterns across the data collected that are important to the description of a phenomenon at hand (Breakwell, Hammond & Fife-Shaw, 2000).

There are six phases of conducting thematic analysis (Braun & Clarke, 2006). These are the set of phases that were used as a guideline through data analysis for this study. Analysis is not a straightforward process where the researcher simply moves from one phase to another. Rather, according to Braun and Clarke (2006), analysis is a recursive process, where the researcher has to move back and forth as needed throughout the phases. Additionally, it is a process that

develops over time. In applying the six phases, the researcher took these observations into consideration.

3.7.1 Phase one: Familiarising yourself with your data.

It is very important for researcher to first immerse themselves in the data to the extent that they feel familiar with the depth and breadth of the content. Such immersion involves reading the data repetitively and in an active manner (Braun & Clarke, 2006). A set of 16 questions were asked to each of the six participants. The researcher was then required to listen and read through the interview data several times to become familiar with the content. That is, the researcher read all six transcripts several times to generate the core ideas before they were put into codes, then into themes.

Meaning was interpreted, identified, and codes were generated in this step. It was critical to read and discern meanings, to read between lines and to identify not only the content of what was said, but on the common expressions of all the participants. If a particular word, phrase or metaphor stood out, a note was made, especially if it was common throughout the six responses. In so doing, codes and themes were easily identified (Braun & Clarke, 2006).

3.7.2 Phase two: Generating initial codes.

After the researcher had familiarised herself with the data, discerned meaning and understood the overall content, phase two began. This phase dealt with the generation of initial codes from the data. According to Braun and Clarke (2006), codes identify a feature of the data (semantic content or latent) that appears interesting to the analyst and refer to the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon. Table 3 below displays some examples of the codes that were generated.

Table 3

Example of Generated Codes

Examples of Codes		
Appropriate/measure what they are meant to measure but there are gaps in the current assessments	Home language versus assessment language (not sensitive to SA culture)	No SA norms
Outdated	Irrelevant to today's context (letters)/offensive to most cultures/difficulties are culturally related	Should not be used in isolation
Dynamic assessment/informal assessment training/practice before administration/use of visual aids	Translators (formal and informal)	Language barrier
Diverting from standardised assessment procedures/deviating	Appropriate recommendations and support (context-specific)	Use what the client presents to you

The above-mentioned coding process involved organising the data into meaningful groups, i.e., each of the responses to the 16 questions were compared across the six participants. These groups helped the researcher to understand the data in an orderly manner. According to Braun and Clarke (2006), coding depends on whether the themes are data-driven or theory-driven. In other words, the themes will depend on the data, or the researcher might approach the data with specific questions in mind that they may wish to code around. For this study, the themes were generated from the data to address the research questions below:

- i. What are the limitations regarding the use of Western intelligence tests on individuals from different cultures?
- ii. What are the perceived difficulties that are experienced by individuals from an isiZulu linguistic and cultural background when assessed with intelligence tests that were developed using Western standards?
- iii. What are the experiences of psychologists when using intelligence tests on individuals from an isiZulu linguistic and cultural background?
- iv. How does this experience affect the use and interpretation of the assessment findings?

- v. What guidelines can be suggested to psychological assessment practitioners to manage the assessment process with individuals from diverse linguistic and cultural backgrounds in an accurate and unbiased manner?

This stage was an important part of the analysis as it provided the researcher with an organised way of accessing the data based on the research questions previously generated.

3.7.3 Phase three: Searching for themes.

Once data was accurately coded, the researcher had the responsibility of sorting the different codes into potential themes and collating all the relevant coded data extracts under these themes (Braun & Clarke, 2006). Essentially, within this phase, the researcher began to think about the relationship between codes, themes and different levels of themes, and how they relate to one another (i.e. overarching themes and subthemes) (Braun & Clarke, 2006). The researcher made use of tables to make the viewing of the relationships between the themes simpler and more understandable. Table 4 below displays some examples of the themes.

Table 4

Examples of Potential Themes

Potential themes	Description
Assessment measure	<ul style="list-style-type: none"> • Appropriateness • Administration • Outdated • No SA norms • Offensive to most cultures/difficulties are culturally related
Home language versus assessment language	<ul style="list-style-type: none"> • Language barrier • Limited intellectual assessments that are in different languages • Assessing in non-verbal manner
Administrators	<ul style="list-style-type: none"> • Training centers/facilities (assessors, translators etc.) • Clinical judgement • Sufficient training • Assistance • Reporting to other professionals • Use of informal translators • Deviating from standard assessment

Use of assessment in isolation

- Interpretation is not based on one assessment
- Dynamic assessments
- Collective approaches
- Non-verbal assessments
- Appropriate recommendations and support (context-specific)

Judging a book by its cover

- Labelling and stigmatization
 - Difficulty in determining child's intellectual ability, especially if assessment is not done in the child's home language
-

3.7.4 Phase four: Reviewing themes.

Once themes had been generated, phase four began. During this phase, themes were reviewed and refined (Braun & Clarke, 2006). Some themes fell away and others were added. This phase involved two levels of reviewing and refining themes. Level one involved reviewing at the level of the coded data extracts. For this process, the researcher read all the collated extracts for each theme and considered whether they appeared to form a coherent pattern. If candidate themes formed a coherent pattern, then the researcher proceeded to the second level. If they were not coherent, the researcher had to consider whether the theme itself was problematic or whether the data extracts simply did not fit. Level two involved a similar process, but in relation to the entire data set (Braun & Clarke, 2006). At this level, the researcher considered the credibility of individual themes in relation to the entire data set, as well as whether the participants' thematic map accurately reflected the meanings evident in the data set as a whole. At the end of this phase, the researcher had a fairly good idea of what the different themes were, how they fit together and the overall story they told about the data (Braun & Clarke, 2006).

3.7.5 Phase five: Defining and naming themes.

Phase five involved defining and further refining the themes that emerged in the previous phase (Braun & Clarke, 2006). In defining the themes, the researcher was able to identify the essence of each theme and determine what aspects of the data each theme captured. During this phase, Braun and Clarke (2006) emphasise that the researcher needs to consider the themes themselves and each theme in relation to the others. Part of this procedure is to identify if the themes contain sub-themes. Sub-themes are essentially themes-within-a-theme. They are useful for giving structure to a particularly large and complex theme, and for demonstrating the hierarchy

of meaning within the data (Braun & Clark, 2006). Moreover, it was evident that the existing themes in the current study were large and complex. Even though they were useful, they needed further refinement to provide structure and simplified meaning. Within the data, three overarching themes were identified, namely; the use of assessment measures, language and culture as a barrier, and interpretations. Under each theme, sub-themes were identified. These eventual final themes and sub-themes resulted from a process of refinement of initial themes and sub-themes, and are presented in the figure below.

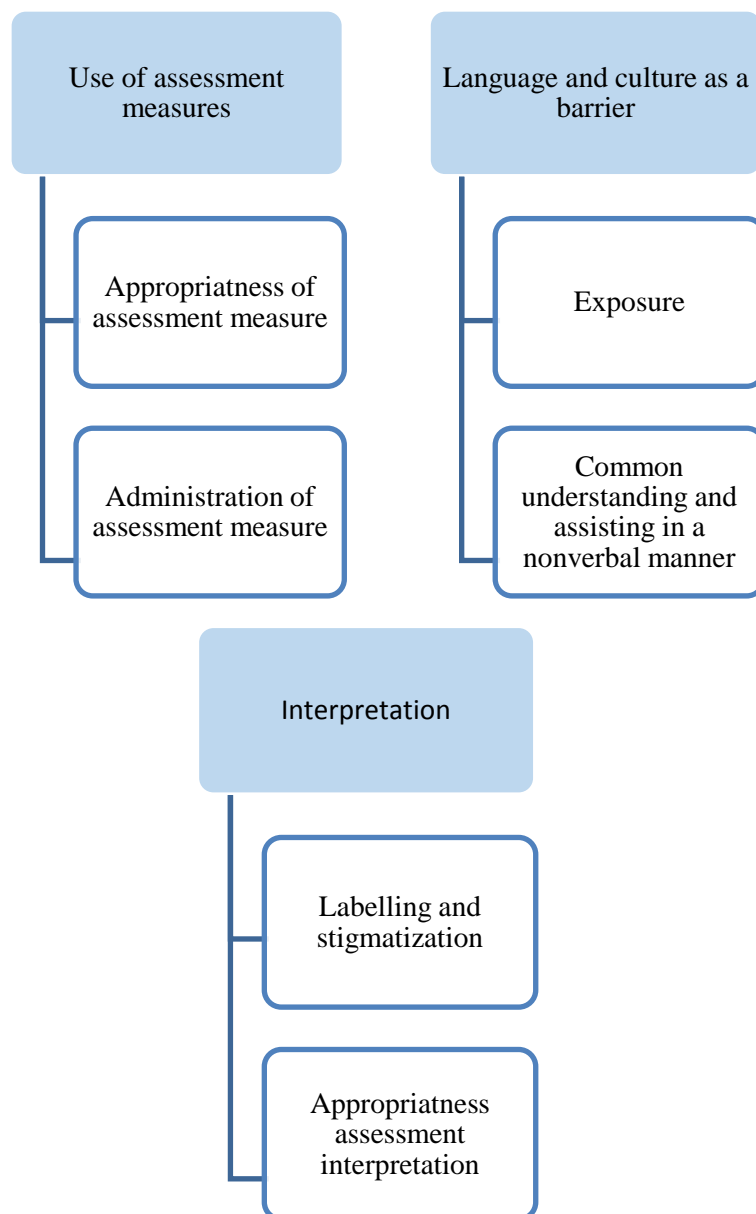


Figure 1

Final Themes and Subthemes

As presented in the figure above, by the end of this phase, the researcher was able to clearly define what the themes were (Braun & Clarke, 2006).

3.7.6 Phase six: Producing the report.

Once full worked-out themes and subthemes were finalised, the final analysis and write-up of the report began (Braun & Clarke, 2006). The overall aim of the write-up was to tell the detailed and complicated story of the data collected in a way that the reader can accept the analysis as credible. It was crucial that the final write-up provided a concise, coherent, logical, interesting and non-repetitive account of the themes within the data (Braun & Clarke, 2006). Most importantly, according to Braun and Clarke (2006), the analytic narrative needed to go beyond description of data, and make an argument in relation to the research questions. The write up of this study will be presented in the findings and discussion chapter (Chapter 4).

Based on the above six phases, it was pivotal to obtain adequate data for this study and its data analytical procedure. Additionally, as mentioned by Braun and Clarke (2006), obtaining relevant themes was a vital stage of thematic analysis. As such, these six stages are crucial and were followed in this study to guide the overall analytic process and to reach each research objective.

3.8 Ethical Considerations

The following discussion will focus on the ethical issues that were considered and addressed throughout the study.

3.8.1 Obtaining ethical clearance.

Ethical clearance was obtained from the Humanities and Social Sciences Research Ethics Committee (HSSREC) of the University of KwaZulu-Natal (Appendix 4). Thereafter, sampling and data collection began. No other permission was required from other authorities for this study.

3.8.2 Informed consent.

In conducting a study of this nature, maintaining honesty and integrity is of cardinal importance (Camic et al., 2003; Shenton, 2004). The participants were asked to sign consent forms after they agreed to participate in the study, in which the researcher ensured confidentiality and privacy throughout the study (see Appendix 3). Information that was in this consent form

included: conditions for participation, issues of confidentiality, risks and benefits for participation and disposal of data (Wassenaar, 2006). Each participant agreed upon the above and signed the consent form.

3.8.3 Autonomy.

Participation in this study was voluntary – that is, participants could choose whether or not they would like to be part of the study. They were informed of their rights to volunteer and to withdraw participation at any time without penalty (Bryman, 2004). They were also provided with information regarding the purpose of the study, the procedures that were followed and assurance with regards to the risks and costs involved (Bryman, 2004; Camic et al., 2003). No direct benefits were provided to the participants. Instead, they contributed towards improving this field of study.

3.8.4 Confidentiality.

Rubin and Rubin (2005) refer to confidentiality as the researcher identifying a participant's response but not revealing the participant's identity or associating comments with their name. Moreover, it not only entails keeping data safe, but also includes destroying data that contains an individual's information (Foxcroft et al., 2004; HPCSA, 2014; Rubin & Rubin, 2005). To maintain confidentiality in this study, no identity-related information was used during the interview discussions, as was clearly stipulated in the consent form. No form of personal information was required from the participants to achieve the overall objectives of this study. Even though the interview sessions were recorded, confidentiality was maintained by the researcher through the use of pseudonyms.

3.8.5 Trustworthiness

Shenton (2004) demonstrates how qualitative researchers incorporate measures that deal with issues relating to reliability and validity through trustworthiness. According to Thomas (2010), trustworthiness is established by using the following four strategies; credibility (in preference to internal validity); dependability (in preference to reliability); conformability (in preference to objectivity) and transferability (in preference to external validity/generalisability) (Anney, 2014; Shenton, 2004; Thomas, 2010). Each of these aspects are discussed below.

3.8.5.1 Credibility.

According to Anney (2014), the credibility criterion involves establishing that the results of

qualitative research ar3.9e credible or believable from the perspective of the participants in the research. In other words, it means assessing to what extent the data and data analysis match reality. Thomas (2010) and Silverman (2010) state that there is not one single reality to be discovered, but each individual creates their own. Thus from an interpretive perspective, understanding is co-created and there is no objective truth or reality to which the results of a study can be compared. It is therefore up to the researcher to determine credibility based on her understanding of the study.

Specific to this study, collecting enough data, transparent reporting on methods and the collection of up-to-date coding ensured credibility. It was therefore important for adequate data to be obtained. This was done through face-to-face interviews with the participants. Thereafter, appropriate methods and guidelines of transcription and analysis of the data were adhered to by conducting thorough interviews, accurately transcribing those interviews and analysing them through thematic analysis.

3.8.5.2 Dependability.

The standard quantitative view of reliability was based on the assumption of replicability or repeatability (Shenton, 2004; Thomas, 2010). Essentially, dependability is concerned about obtaining the same results if the study is repeated a number of times (Shenton, 2004). In qualitative research, the idea of dependability emphasizes the need for the researcher to account for the ever-changing context within which the proposed research occurs. For the purpose of this study, it was important to recognise that the language and cultural context is always changing. In addition, psychologists may not have the exact same experience with intellectual assessment administration and interpretation. The researcher was therefore responsible for describing the changes that occur in the setting and how these changes affected the way in which the researcher approached the study (Anney, 2014; Shenton, 2004).

Moreover, Thomas (2010) states that dependability in qualitative research is problematic and may be seen as impossible since human behaviour is not static; it is contextual and changes based on various influencing factors. In the context of this study, psychologists may not have the exact same experiences, and personal construction of meanings may also be based on individual experiences of the researcher. As a result, dependability may not always be practical in qualitative research. Nonetheless, Shenton (2004) states that dependability in this type of research should nevertheless be determined by evaluating whether the results are consistent

with the data collected through the following techniques: explaining the assumptions and theory behind the study, using multiple methods of data collection (method triangulation) and analysis, and explaining in detail how data was collected and analysed. The theory was explained in Chapter 2, particularly on how it is associated with the data collected. Unfortunately, method triangulation was not used in this study, however, the method used for data collection and analysis was thoroughly applied.

3.8.5.3 *Transferability.*

Transferability refers to the extent to which the results of qualitative research can be transferred to other similar contexts or settings (Shenton, 2004). From a qualitative perspective, transferability is primarily the responsibility of the researcher. The researcher can enhance transferability by thoroughly describing the context in which the research took place and the assumptions that were central to the overall research (Anney, 2014). Specific to this study, the research took place within a linguistically and culturally diverse South African context. Participants were practitioners in the field of psychology in the province of KwaZulu-Natal, who have administered intelligence tests on individuals from linguistically and culturally diverse backgrounds, including isiZulu-speaking individuals. The person who wishes to “transfer” the results – here, the researcher – to a different context would then be responsible for making the judgment of how sensible the transfer would be (Anney, 2014; Thomas, 2010; Shenton, 2004).

3.8.5.4 *Confirmability.*

Qualitative research tends to assume that each researcher brings a unique perspective to the study (Anney, 2014; Shenton, 2004). Confirmability refers to the degree to which the results could be confirmed or corroborated by others (Shenton, 2004). For this study, there were some strategies that were used for enhancing confirmability, linked to Halcomb and Davidson’s (2006) six steps of transcribing interviews. These steps included the researcher documenting the procedures for checking and rechecking the data throughout the study, and actively searching for and describing the negative instances that contradict prior observations. After the study, the researcher conducted a data audit that examined the data collection and analysis procedures and made judgements about the potential for bias or distortion (Halcomb & Davidson, 2006; Thomas, 2010; Shenton, 2004). Thereafter, preliminary results were presented to the participants so that they could confirm that the analysis and interpretation of the data was accurate (Thomas, 2010).

To improve the overall dependability and credibility of this study, data was not fabricated (Camic et al., 2003). Specifically, data collection was done in a thorough manner. Since tangible or statistical data was not obtained, credibility, dependability, transferability and confirmability of the study depended on the observation and logic of the researcher's argument and interpretation. Additionally, the analytical procedure chosen for the study was strictly adhered to (Bryman, 2004; Camic et al., 2003). However, it must be noted that due to the limited time stipulated for this study, as well as the limited sample size, absolute perfection and accuracy was difficult to obtain.

3.9 Conclusion

This chapter outlined and discussed the study's research paradigm, research design, sampling, data collection, process of transcription, ethical considerations and trustworthiness. The interpretivist research paradigm was described in conjunction with qualitative methods. Thereafter, the data collection process in the form of interviews with psychologists about their experiences was detailed. This was followed by a discussion of thematic analysis, which was used to generate codes and to define themes. Lastly, ethical considerations were discussed along with how trustworthiness was attained. The next chapter will present and discuss the findings of the study.

CHAPTER 4

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the current study. These findings are presented in relation to the themes that emerged from the analysis of the data, namely, the use of assessment measures, language as a barrier and interpretation. These themes will be discussed along with examples of text that have been coded from each theme. The themes will then be discussed in relation with the research questions and the relevant literature and theory.

4.2 Use of Assessment Measures

Participants expressed a general concern regarding the overall use of the currently available psychological assessment measures. This is mainly because these assessment tools are Western-developed and have Western norms. Furthermore, participants expressed that the intellectual assessment tools that are available are outdated. Thus they are unfair, offensive and misrepresent the South African population and the true intellectual functioning of testees. Participants were in agreement that intellectual assessment has a serious implication on an individual's life, but the procedure and the tools are not used effectively.

- P1: So I think my biggest concern is whether the test is able to give an accurate reflection of everyone...They cover what needs to be covered, but an update is good.
- P2: They are all unfortunately Western although we stay in a Western culture, not all these Western assessments tap into our intelligence as African people.
- P5: I find the assessments are very outdated and some are irrelevant. Some of them are also offensive to most cultures.

One of the most common threads through various experiences of the participants was their reference to the irrelevance and outdated nature of intelligence tests. As literature indicates, intellectual assessment and their outcomes are often used as guidelines for important milestones of an individual's life such as educational, career and social paths (Dale et al., 2014; Jukes & Grigorenko, 2006). Even with the importance that assessment measures hold,

psychologists express a concern on the outdated nature of the measures that are used. Research conducted by Paterson and Uys (2005) has found that there are critical issues in using psychological assessment measures in the South African context, which include irrelevance due to the outdated nature of the assessment measures. Further research has also shown that the ineffectiveness of some of the assessment measures used in South Africa has been an ongoing concern (Foxcroft et al., 2004; Schultheiss & Stead, 2008; Schaap, 2011; Setshedi, 2008; Sibaya, Hlongwane & Makhunga, 1996; Van de Vijver & Rothmann, 2004).

According to Foxcroft and Roodt (2013), this ineffectiveness may be a consequence of intellectual assessment measures being based on Western concepts which do not take the South African diversity into consideration. Furthermore, the norms of the assessment tools are not appropriate for the South African context (Moerdyk, 2009). The participants' concerns echo some of the findings of previous research, which emphasise that the standardised tests and their norms are specific to the populations for which the assessment tool was developed, and using these tests may misrepresent South African testees' intellectual abilities (Foxcroft et al., 2004). Similarly, participants did not only express a concern regarding the outdated nature of currently available assessment tools, but also emphasised the irrelevance that these intellectual assessment measures have for South Africa's diverse population. One possible reason is limited consideration of contextual backgrounds.

Even though the research questions of the current study focused on the use of intellectual assessment measures, the data related to the use of psychological assessment tools in general. Paterson and Uys (2005) and Laher and Cockcroft (2013) found that the appropriate administration of psychological assessment measures in general, especially in multicultural South Africa, pose some challenges. These challenges, as mentioned above, are based on the outdated and irrelevant nature of the assessment measures for the South African context. As such, testees' have sometimes been labelled or stigmatised because of the misinterpretation of the results. Van de Vijver and Rothman (2004) emphasise that one of the lifelong implications that assessment measures have is being labelled and stigmatized, especially during the early years of a child's life. This may influence many other pathways in the child's future. Thus to avoid such instances, participants suggested an update of existing assessment measures. According to Levin and Buckett (2011), this is a difficult task for most psychologists, but it is nevertheless pivotal to ensure the appropriate use and administration of these assessment measures.

Based on the above discussion, the appropriateness of intellectual assessment measures and the effective administration of these measures seems to be an important yet challenging part in the assessment of intellectual functioning. This will be discussed further below.

4.2.1 Appropriate use of assessment measures.

The participants seemed to be concerned with finding the most suitable and appropriate assessment tool that will accurately represent the testees' abilities. Doing so was challenging for the participants specifically because of the outdated nature of the currently available assessment tools. The length of the intellectual assessment tool and how it impacted upon the understanding of the individual being assessed also seemed to worry the participants, especially when they are tasked with finding the most appropriate assessment tool. Some participants suggested making the intelligence tests shorter. However, doing so could potentially lead to some deviations in the standardised intellectual assessment procedures.

The appropriate use of assessment tools, particularly intelligence tests, continues to be of vital importance. This is because of the implications involved with the use of the assessment results (Dale et al., 2014; Jukes & Grigorenko, 2006). As previously indicated, researchers have expressed concerns relating to the inappropriateness of these assessment measures for the South African diverse population because of their outdated nature (Foxcroft, 2004, 2011; Laher 2010). Similarly, the current study's participants' accounts revealed the same concern together with issues regarding which assessments are used, their length and recommendations. These concerns are individually discussed below.

4.2.1.1 Context.

Participants emphasised on how diverse the South African population is, where individuals have experiences that are context-specific and are usually not fully taken into consideration by the standardised assessment measures of intellectual abilities. Thus testees are not able to effectively reflect or demonstrate their true abilities.

P2: One of the things that needs to be changed is the word test. It is very frightening and it needs to be changed because it is used a lot everywhere. You go to the hospital [and] they use the word test, schools, etc. For example, how do you say intelligence test or assessment in isiZulu? So you have to try and explain this

concept to people. Once people hear the word test, they become scared and they then do not want to do it or they use their defence mechanism. They have the mentality that they are in a school environment and its either they fail or pass. So new assessments need to be developed and the first thing the test developer may need to do is change that word.

P3: Assessments are not an accurate reflection of the child's actual abilities because we know that there aren't any SA norms for it. This means that they should not be used on our country's diversity and new assessments should be developed.

P4: The Western assessments resemble all that is Western and nothing that is South African, unfortunately.

P6: There is a sense of unfairness in terms of intellectual assessments sometimes, but it goes back to standardisation, since the assessments are not standardised in South Africa. Even the assessments developed in South Africa are unfair.

As indicated in the literature review, intellectual assessment measures have been used for almost a hundred years, but were originally developed using Eurocentric norms and applied on the Western population (Foxcroft & Roodt, 2013; Moerdyk, 2009). Although changes have been made post-apartheid, where intellectual assessment measures have been provisionally adapted to cater for the diverse South African population, these adaptations do not fully consider the diversity within different South African languages and cultures (Foxcroft & Roodt, 2013; Van De Vijver & Rothmann, 2004). Therefore, these assessment measures fail to cater for the country's context. Based on the interview data, there seems to be a concern regarding the contextual use of Western assessment tools on South Africa's population. Professionals seem to be well aware of the adaptation that has taken place in intelligence tests, but the participants' accounts demonstrate and expand on the ineffectiveness of using such assessment tools in the South African context.

As noted, even though South African psychologists administer Western psychological tests, much of the country's population still draws upon African intelligence (Mdlalo, 2013). Therefore not all Western assessment measures have the ability to adequately assess the intellectual functioning of Africans. As Vygotsky argued, individual experiences and social

interactions play a vital role in the development of intelligence (Daniel, 2008; Vygotsky 1978). This means that a person's intellectual development is context-specific. As such, a testee's intelligence and potential may only be accurately presented in their representative social group (Daniel, 2008; Turuk, 2008). Thus the context in which the intellectual assessment measure is used determines the appropriateness of the assessment measure. Using intellectual assessment measures that have not taken this context into consideration would possibly misrepresent the individual's potential.

Intelligence is also understood differently amongst different groups of people (Turuk, 2008). It is therefore pivotal for both the psychological test and the professional using it to have contextual accommodation and knowledge on using any form of intellectual assessment measure (Ahmed & Pillay, 2004). Due to this, there is still an argument amongst psychologists about what intelligence really is and how can it be successfully measured (Foxcroft & Roodt, 2013; Rust & Golombok, 2014). This was evident in the findings of the study as there was a disagreement in determining whether intellectual difficulties are a result of language or differential intellectual exposure. One of the participants noted there is no term or phrase for "intelligence test" in isiZulu. The assessor is then forced to use the word "test" alone, which is, once again, understood differently by the individual being assessed. Tests are what the clients are exposed to at school and hospitals, which may potentially lead them to thinking that it will yield negative results, thus affecting their performance. For example, a participant may think that they are in schooling environment when they hear the word "test". To the individual, "test" could be associated with passing or failing thus negatively implicating on their performance.

It is evident that there is a sense of unfairness regarding the use of both Western and locally developed intellectual assessment tools in the South African context. Firstly, this is due to the non-South African norms that are used, which subsequently leads to a biased representation of a testee's intellectual ability. Secondly, locally administered assessment measures may be context-specific, but their language still remains an exacerbating factor to the appropriate use of these assessment measures. Even though intellectual assessment measures have been adapted and locally developed to be appropriate for the South African context to a limited extent, the current study has found that the problem has not been completely solved. Laher and Cockcroft (2014) further state that adaptation does not reflect appropriateness. That is, since

the assessment measure has been adapted, it does not ensure perfect representation of an individual's intellectual abilities within their specific context.

There seems to be a view among some of the participants that, in some instances, existing assessment measures should not be adapted; rather, new assessment measures should be developed from scratch. This view is similar to Laher and Cockcroft's (2014) findings, which suggest that the psychological profession would benefit from having psychological assessment measures that are developed in South Africa – given that the assessment content is relevant to the current South African context and the language is appropriately used. However, such sentiments were not echoed by all the participant interviewed for the current study. Some of them raised concerns about the costs, time and effort that it would take to develop a new South African context-specific assessment measure. Despite the fact that the development of new, context-specific assessment measures seems to be the best solution to the appropriate use of intellectual assessment measures, the findings state that this may not be the most feasible option. For these participants, adapting existing assessments may be the best and most realistic option. This finding is consistent with Paterson and Uys' (2005) argument that adaption is more feasible than test development.

In light of the above, the findings of the current study illustrate that there is still a lot of work that needs to be done to solve context-specific problems. Participants suggested discontinuing the use of available Western intellectual assessment measures and adapting existing assessment measures. According to Laher and Cockcroft (2014), this has been partly addressed through the development of context-specific intelligence tests such as the Senior South African Individual Scale (SSAIS) and the Junior South African Individual Scale (JSAIS), which are solely for the South African population. Even so, these measures are only used on the younger populations and they are administered in English. Therefore their use still poses language- and culture-related challenges for certain testee's such as isiZulu-speaking children (Foxcroft, 2011). These challenges result from the norms used in the assessment being non-representative of the entire South African population (Moerdyk, 2009; Paterson & Uys, 2005).

Even with the above concerns, some of the findings highlight that although intellectual assessment measures do initially appear to cover what needs to be covered, they are not effective for the South African context. To be exact, Western intellectual assessment tools

measure intelligence, but not as it is conceptualised by the South African population today. One of the participants made the following comment about the content of the SSAIS:

P5: The language that's used is irrelevant to today's clients. One of my clients during the comprehension subtests in the SSAIS asked me what a letter is. It may be relevant to use recent terms such as WhatsApp or Facebook.

This participant referred to the Comprehension subtest where a client is required to answer the question relating to a letter. The concern is that younger children/testees' today are unfamiliar with letters and do not know what to do with them. Therefore, they would not know how to appropriately respond to such questions. The common argument between these participants is that intellectual assessment tools measure what they intend to measure however, not in context. Therefore, these tests do not assess what they were designed to measure. Some of the content in intelligence tests is irrelevant for the current context. Therefore, adapting existing assessment measures and using content that is relevant for today's clients, such as WhatsApp or Facebook, may indeed be necessary. Another consideration is the length of the test, or the amount of time it takes to administer.

4.2.1.2 Length of the test.

There was consensus amongst participants relating to the length of intellectual assessment procedures and tools. Even though participants have an understanding of why these procedures and tools are so long, they believe that the length plays a role in negatively influencing testees' performance. They mention that testees, especially children, lose focus, which then leads to a decline in their performance.

P2: The assessments, specifically the WAIS [Wechsler Adult Intelligence Scale], is [sic] too long and in this profession, there is not enough time for three hour assessments; here we work with money.

P5: Some of the assessments have long instructions that the child may not understand or follow and rather confuse the child. Most children lose their attention because they have to sit for so long.

Generally, assessment procedures and tools are known to take up a lot of time because of their length (Foxcroft & Roodt, 2013; Laher, 2010; Moerdyk, 2009; Zuma, 2014). Most assessment measures usually last between two to four hours, which is the prescribed, standardised length for intelligence tests (Foxcroft & Roodt, 2013; Laher, 2010; Moerdyk, 2009). The time taken depends on the presenting problem of the testees and the pace at which they complete the task. Participants all shared concerns about the lengthy assessment period as well as the complexity of the instructions, where some clients lose their attention and guess some of their answers. Participants suggested that the assessment length may lead to fatigue and limited attention, while the complex instructions may lead to limited understanding and confusion among the testees.

One participant preferred using other assessment tools that are equivalent to the standard intellectual assessment tools. This included the General Scholastic Aptitude Test (GSAT). This participant is in private practice and expressed that the WAIS and the SSAIS are too long. Emphasis was made on not having time to administer long intellectual assessment measures. Interestingly, Foxcroft et al. (2004) found that psychologists who are in the private sector tend to use longer test batteries than psychologists in the public sector, because of the longer duration of assessment services that are offered and financial considerations (Foxcroft et al., 2004; Zuma, 2014). In contrast, Suzuku and Ponterotto (2007) state that psychologists in private practice use assessment measures that take less time due to other psychological activities in which they have to engage. These psychological activities include therapy, research and counselling (Foxcroft & Roodt, 2013). Based on the findings of the current study, psychologists differ in the kinds of services they provide in their private practice, and such practices determine the assessment preference they may have and the appropriate administration of the assessment tools that they use. When a psychologist is able to use their preferred assessment measure, the chances of the psychologist appropriately using it are high.

Overall, the length of the assessment and the complexity of the instructions seems to have an impact on the performance of the testees, which may result in a misinterpretation of their true intellectual ability. There did not seem to be a collective agreement amongst participants about the best solution to address the issues regarding the length of intelligence tests. However, based on their views, this study has found that making the tests shorter might benefit the testees' in maintaining their concentration and attention, and helping to optimise their performance. In contrast, Paterson and Uys (2005) argue that shortening the assessment procedures would lead

to non-adherence to the original standardisation of the test, and would defeat the purpose of intellectual assessment. Ardila (2005) also emphasises how this could lead to construct bias owing to the incomplete coverage of all necessary aspects that constitute intelligence – that is, the shorter intelligence tests would not cover the full range of questions and tasks required. Even though participants emphasised doing so would facilitate the testees' understanding of the content of the test, it would not facilitate the appropriate use of intellectual assessment tools. Meanwhile, adapting intellectual assessment tools has been something that researchers have attempted to do (Basu, 2016; Foxcroft & Roodt, 2014, Foxcroft et al, 2004; Moerdyk, 2009). In addition, Mdlalo (2013) emphasises the need for periodical breaks when an assessment is conducted. In light of the above, taking breaks during assessment measures seems to be the most suitable option while updates are being made.

The findings of the current study suggest that all of the above-mentioned concerns (assessment context and length) may lead to potential bias. To be clear, the inability to acknowledge linguistic and cultural influences in assessing individuals using South African and non-South African intellectual assessment measures can lead to bias in administration and interpretation, as well as in the provision of recommendations. The findings conclude that assessment measures are considered to be appropriate when the standardised test content is context-specific, representing the cultural background of the testee. Despite this growing awareness and consistent research, little has been done, which also negatively affects the administration of assessment measures.

4.2.2 Administration of assessment measures.

Due to the lifelong implications that an intellectual assessment has in many areas of an individual's life, the manner in which they are administered is vital (Foxcroft et al., 2009). The ethical guidelines for psychological assessment stipulated by the HPCSA emphasise that no harm should be done to the client that is being assessed (HPCSA, 2014). This code means that the client should not be harmed physically, mentally or emotionally through the administration of the assessment (Foxcroft, 2011; HPCSA, 2014). To abide by this ethical code, the administration of assessment measures needs to be appropriate and considered with caution.

Administration of assessment measures was a sub-theme that will be elaborated on using the participants' accounts under the following headings: the use of translators, the appropriately trained assessment professionals, and standardised assessment procedures and resources.

Based on the findings, these seem to hinder practitioners from abiding by the ethical code of doing no harm to clients.

4.2.2.1 The use of translators.

Based on the interview data, the use of translators appears to be a trend. Even though participants seemed to be concerned about doing so, it looks to be one of the most effective alternatives in making the intellectual assessment as fair as possible. The interview data suggests that in acting in the best interest of the client, specifically isiZulu-speaking clients who are being assessed in the English language, the use of translators is perceived to be essential. In most cases, it also seems to be a solution to a potentially ineffective assessment process. Both positive and negative accounts of using a translator were reported by the participants.

P4: Ok, the use of translators is not always easy. In private practice I can find my own translators that I pay and I choose them. When I was at the Tutuzela abuse clinic at Edendale, I was there for a few months and the nurses were translating. I do understand isiZulu because I have done [sic] and studied isiZulu, but I can't really conduct an assessment in isiZulu. And I could understand the nurses where translating just a little bit too much or not exactly what I wanted so... Sometimes it is the triangulation (one person not communicating directly with another person, instead using a third person to relay communication to the second, thus forming a triangle) of the assessment that somebody else is translating for you but that's not surely what you want them to ask. But I think that's the general problem in therapy as well.

P4: We had a social worker as translator and the problem with that was that the social workers were translating and helping the clients. Little did they know that they were harming rather than helping the client.

P6: In my experience, the best interest of the client is my heart. If a child speaks isiZulu at home and they are in the first or second grade, they do not have that much exposure, I then bring a translator in or a person who speaks isiZulu.

Based on the above findings, it is evident that most psychologists make the use of translators. However, they reported using a person who speaks isiZulu as opposed to a formal and qualified translator. Such a person could be any of the employees (receptionist, cleaners, social workers, teachers etc.) who are proficient with isiZulu and in vicinity of where the assessment is taking place. Some report to beginning the assessment process with the translator and others mention that the translator joins when the assessor sees that there is limited understanding from the individual being assessed. This informal use of translators affects the overall process of assessment, as there is a lack of professionalism and consistency involved in the process (Foxcroft, 2011). According to Foxcroft (2011), this is an ethical dilemma and may be a barrier towards acting in the best interest of the client.

However, according to the HPCSA (2014), the informal use of a translator is unethical. There are ethical codes stipulated by the HPCSA that guide the use of translators. These ethical codes are in form 223 which includes the Health Professions Act (Act No. 56 of 1974) as well as Rules of Conduct Pertaining Specifically to the Profession of Psychology (HPCSA, 2014). Based on the Council's ethical codes, a translator has to be competent, proficient in two or more languages and not have multiple relationships with the client to whom are providing a service (HPCSA, 2014). Thus based on the findings from this study, when there is a language barrier, psychologists aim at acting in the best interest of the clients to whom are providing a service through the informal use of translators. However, this act is compromised due to the limited competency that the translators have in formal translation. Thus there is a lack of adherence to the above ethical codes (Levin & Buckett, 2011). Simply put, although psychologists are under the impression that they are assisting clients by using an unqualified translator, they are doing harm and not acting to the best interest of the client.

Ochea, Ricco, Jimenez, De Alba and Sinez (2004) state that aside from limited adherence to the ethical codes, the informal use of translators presents other problems. These include providing additional information that assist the client in answering the questions and giving incomplete translations that may be inaccurate. These errors not only alter the original meaning of the question and response, but also negatively affects the client's performance on the assessment (Ochea et al., 2004). These observations support the participant's accounts, in that because informal translators are used, the participants are not certain as to whether the translator is translating effectively, or assisting or hindering the individual's overall performance. This was a concern to most of the participants, however, they reported that they

usually do not have any other options due to the limited number and high service costs of trained translators. Translators, as with any qualified professional providing a service, are expensive and tend to offer their services at a high rate (O’Byron and Rogers; 2010). Therefore according to the findings, using unqualified translators is the most financially convenient option.

Only one participant mentioned that they are aware of the translations that are made by the translator. As indicated above, the rest of participants emphasised how they do not know if the translator is translating effectively and correctly. This is because informally used translators often lead to unintended distortions in communication (O’Byron & Rogers, 2010). O’Byron and Rogers (2010) emphasised the need for practitioners to ethically make use of trained translators. They should also have the acquired skills of working with translators (Foxcroft, 2011; Foxcroft, et al., 2009; HPCSA, 2014; O’Byron & Rogers, 2010). In this current study, none of the participants reported to having received appropriate training when they make use of translators.

4.2.2.2 The appropriately trained assessment professionals.

Appropriately trained professionals in psychological assessment is important. However, the data suggests that there limited appropriate and continuous training of assessment professionals. Participants also emphasised the importance of being competent in using any form of assessment. The findings show that this type training is not only achieved through formal studies, but also through exposure and liaising with other professionals.

P5: During training, professionals should be aware of the assessments through practicing with fellow trainees... I feel that the interpretations of tests is also very difficult. And I feel that with the level of training, not enough attention has been placed on it. I know definitely for me with the SSAIS-R [Senior South African Individual Scale – Revised], JSAIS, all of those tests, even the WISC and the WAIS, we weren’t really given a lot of training on them so I feel that I had to learn a lot on my own by reading. And I think it’s important that supervisors work closely with training psychologists in terms of checking their scoring and interpretation in order for you to get good grounding of what you are reporting. And I think perhaps if we had workshops offered after training, just so that we can keep in the loop of these tests. So that’s the concern I also have. And I think

that a cognitive or intellectual assessment are one of the core ones you should have as it holds the battery as an educational psychologist.

P4: My supervisor also mentioned that the newer versions of the WISC has been computerised. That would also be really great if we were exposed to that in training or at least experience that so that we can see the modern ways in which the field is going.

Being trained in becoming a psychologist or psychometrist is a long but important process towards becoming a competent assessor (Foxcroft, 2011; Foxcroft et al., 2004). Nevertheless, Foxcroft and Roodt (2013) state that sometimes this training is not enough. Other researchers mention that the period spent training psychologists is in fact nowhere near efficient in becoming a fully competent practitioner. It is the experience and continuous exposure to intellectual assessment measures that play a vital role for these professionals (Foxcroft et al., 2004; Miller, 2011; Ochea et al., 2004). Levin and Buckett (2011) thus suggest that proper training should be inclusive and ongoing.

There seemed to be a correlation between the interview data and the above literature. Participants' accounts emphasised that in addition to the formal training, continuously practicing with fellow professionals in using the assessment measures is essential in order to maintain their existing knowledge and develop further knowledge in administering the assessment tool. Therefore, a suggestion was made that training be provided through additional workshops even after a professional has become registered with the HPCSA. This would help ensure compliance with the ethical requirements of the HPCSA and would be beneficial for both the professional and the individual being assessed (HPCSA, 2014; Levin & Buckett, 2011). Further training is especially beneficial for both the professional and the testee, in the assessment process. The professional is able to build upon their existing psychological knowledge whilst obtaining further contextual knowledge. This may potential facilitate accurate interpretation and representation of the assessment results.

The findings also suggest that closely working with supervisors can assist in laying a firm foundation for psychologists for the administration and interpretation of assessment measures. One of the core components of becoming a qualified professional under the HPCSA is ongoing training and development (HPCSA, 2014), which is achieved through constant communication

with other professionals as well as workshops and educational programs (Levin & Buckett, 2011). The nature of intellectual assessment and the implications they have on an individual's life require constant liaison with a professional with extended years of experience and continues training.

In addition, due to the growing South African diversity, multicultural training is also important (Laher & Cockcroft, 2013). Guidelines are provided by the HPCSA for psychometrists and psychologists. In these guidelines, there are requirements pertaining to contextual knowledge and skills, cultural factors that could impact on test scores, and the appropriate procedures to be followed when assessment tools are adapted for use in different language and cultural groups (HPCSA, 2014). According to the HPCSA's (2014) ethical regulations, psychologists also need to deliver culturally appropriate assessment services that include avoidance of unfair discrimination, appropriate use of assessment methods and accommodation of cultural diversity. As such, the HPCSA (2014) has fully acknowledged that language and cultural factors may affect psychological assessment. Psychologists need to demonstrate the same acknowledgement, as the inability to do so can lead to bias in assessing individuals. Other issues that the psychologist needs to take into consideration in the administration process is deviation from standardised assessment procedures.

4.2.2.3 Deviation from standardised assessment procedures.

Participants are well aware of the standards to which they need to abide by in the administration of assessment. However, full compliance to standard procedures does not seem to be possible because of a barrier in understanding between the client and the assessor. As such, some professionals deviate from procedures in an attempt to act in the best interest of the client. They do so by simplifying or translating the questions. Participants also mentioned that they make use of non-verbal tools and dynamic assessment approaches.

P1: I make it more a dynamic assessment – you have to adapt it to the particular child. For example, this child who was hearing impaired as well as Zulu speaking, [so] I did have to use a lot more facial expressions and gestures. Um, so when you can see that its actually going against the child, and it is prejudice or bias towards the child, I do think you need to step in and help the child as much as possible, not by giving answers but the child needs to have an understanding of the basic instructions before they can even have a chance in answering the question. Um,

and if you're not giving that understanding it's already to me an invalid assessment.

P3: I think it's the issue of not stepping over the line where you over explain, because you are also a Zulu speaker, and on your first encounter with a child you can see that this child is capable but when you have to do long assessment techniques such as your SSAIS and McCarthy, they struggle. But general IQ, their general intelligence, you can see that it's even above average. When you met with them, you maybe did your additional screenings and you spoke to them in their language. So I think my most challenge [sic] has been trying not to overstep the client of [sic] invalidating the test. And also finding a test that is exactly suited for them.

P4: In some cases I change the order of the test because I believe that the comprehension helps the vocabulary test. In some cases, there was a person who was able to translate for me, so I used them. I sometimes use sign language and some drawings to also try make it more visual and across the language barrier with a more visual, non-verbal way of doing it.

Ethical codes, laws and standardised assessment procedures have been put in place to provide guidance for the fair administration of assessment (Foxcroft, 2011; Foxcroft & Roodt, 2013; RSA, 1974). However, it is very difficult for professionals to abide by these nationally enacted ethical codes and laws regarding the fairness of assessment measures in a diverse society. As a result, it seems to be a challenge to fully follow the standardised assessment procedures (Bethlehem et al., 2003; Bornman, et al., 2010). The interview data demonstrated an agreement with the above, with participants pointing out how challenging it actually is to administer standardised intellectual assessment tools. Some participants mentioned that although the assessment procedures are standardised, they have not been standardised for the South African population. Those tests that have been standardised for South Africans do not fully take the diversity of language and cultures into consideration. As a result, some participants mention that to act in the best interest of the client, they deviate from these standardised procedures.

In this deviation, participants stated that they make use of visual aids and dynamic assessment approaches. For example, one participant mentioned that when clients do not understand what

was asked of them, they draw a picture to facilitate this understanding. Other participants reported using simpler verbal explanations to facilitate understanding. Even though doing so may not be part of the standardised assessment procedure, the participants suggest that this is the only way in which they feel they are able to act in the best interest of the client, especially those who are from a different linguistic and cultural background and are being assessed in English. Even though participants felt that using a dynamic assessment approach is not necessarily over-stepping the boundaries, Murphy and Maree (2006) emphasise that it is. Assessing dynamically means incorporating the standardised intellectual assessment with other assessment procedures such as the use of visual aids. Murphy and Maree (2006) state that using scoring procedures and norms of the test after dynamic administration provides potential intellectual scores as opposed to true intellectual scores at the time of assessment. Nevertheless, based on the participants' account, assessing dynamically seems to have more of a positive rather than a negative implication as it assists assessors in acting in the best interest of the client.

Grigorenko (2009) thus states that the standard assessment procedure may not be effective in representing true intellectual abilities in individuals who are from diverse linguistic and cultural background. This is mainly because the focus of the assessment is on current ability as opposed to future potential. Using a dynamic assessment approach complements these standardised assessment measures and may assist in resolving some issues related to assessment of linguistically and culturally diverse individuals (Laing & Kamhi, 2003; Murphy & Maree, 2006). For example, a study conducted by Laing and Kamhi (2003) found that practitioners overcame challenges that they faced whilst administering assessment tools to children from a disadvantaged background through making the use of the task-stimulus variability method. This method involves using stimuli, such as pictures or other non-verbal artefacts, that are relevant to the children's context and that are generally more understandable. Research concluded that the use of visual aids and prompts enhances the performance of South African children who have low levels of education and are unfamiliar with standardised assessment situations (Foxcroft et al., 2009; Laing & Kamhi, 2003). Furthermore, the chance of error due to misunderstandings of task requirements is also reduced (Carter, Lees, Muria, Gona, Neville & Newton, 2005; Foxcroft, 2011).

As indicated throughout this thesis, Vygotsky stipulates that intelligence is context-specific thus it needs to be measured in context (Vygotsky, 1978). Most traditional African

understanding of intelligence is based on skills. Whereas, Western understanding of intelligence is a result of academic competence (Cocodia, 2014). These Western artefacts are socially mediated and there are some words that may not be understood by testees who are from an isiZulu language and cultural background. Making use of visual aids could bridge this gap, as visually presenting the material may facilitate better understanding than verbally presenting the information (Carter et al., 20005). Such dynamic assessment approaches would also help in the case of limited resources.

4.2.2.4 Resources.

The interview data suggested that if there were enough resource centres that had well-resourced assessment measures in different languages, well-trained practitioners and the formal use of translators, then some of the concerns involved in the administration of assessment measures would be alleviated. Assessment measures would be appropriately used and there would be no deviation from the standard assessment procedures. A participant emphasised how the overall aim of these resource centres is or should be to provide free and appropriate psychological services.

P5: What the ideal situation is? A very well-resourced assessment centre full of different assessments in different languages, that's ideal, all languages is ideal. To have well-trained people that are able to apply the assessments and [...] know how to apply [them] because sometimes that's also the problem. To have translators in all the languages. To have resources because the tests cost so much; they are very expensive. I'm not saying for private practitioners because we can recover costs, but for rural areas, for hospitals, for centres. To resource a centre with tests is a huge expense, I mean I even see us with our students here we have to borrow from CFC. If I have to assess, maybe do a NEPSY or a specific test on a student that maybe has language as a barrier, I have to go look for assessments because we do not have the capacity and the money to buy tests. Maybe even donate tests to centres – that would be nice. Train some psychologists for the centres – that would be nice.

Limited attention is paid to South Africa psychological health resources, especially those that are provided cost-free (Laher, 2010). While public resource centres are usually equipped with the necessary professionals and assessment tools, one participant emphasises that the resource

centres in rural areas face challenges. Firstly, the professionals in these resource centres are usually undertrained. For example, anyone that is proficient in a language may be considered as a translator, regardless of their inability to correctly translate. Furthermore, psychologists have limited time in the administration of intellectual assessment (Foxcroft, 2011). This is due to the busy nature of this environment and the amount of time it takes to administer an intellectual assessment measure (Foxcroft, 2011). Even with this, assessment measures are still administered. This makes assessment procedures unethical, which puts the client at a disadvantage (Foxcroft, 2011).

Even though free services are provided in public psychological health, there are usually limited, outdated, informal or irrelevant assessment measures and procedures (Ruane, 2010). There is a high cost that is attached to assessment tools which makes purchasing them almost impossible. Even with the above concerns, professionals in the resource centre still use these assessment measures because they have no alternative. This is popular amongst psychologists who are in the public sector (Ruane, 2010). To these psychologists, it is not about choice, but rather what is available (Foxcroft, 2011; Ruane, 2010). Thus informal assessment measures are also used to bridge the gap between access and availability. Having a well-resourced centre, especially in disadvantaged areas, is an ideal situation but participants seemed to be equally aware of the minimal possibilities of this becoming a reality. One of the reasons given was the limited attention that South Africa pays to psychological health, which includes assessment and its importance.

For the professional, being familiar with the language and cultural context of the client and the assessment tool is also crucial in the overall assessment process. Moreover, for the client, being familiar with the language and cultural context of the assessment tool is just as important. These issues will be discussed in the next section.

4.3 Language and Culture as Barriers

There seems to be consensus amongst participants regarding language and culture being the main barrier to the use of intellectual assessment. Based on the findings, this barrier includes a) exposure and b) the language of assessment versus the language of proficiency. Participants emphasised how there are no available suitable assessment measures that accommodate all language and cultural groups – more specifically, the isiZulu language and cultural group, because of the limited Western intelligence that the isiZulu language and cultural group

possess. Due to this difference, there is limited common understanding of the assessment by individual.

Furthermore, there seems to be a debate amongst participants about the language of assessment and the language of proficiency. Most clients are assessed using English because they are taught in the English language. However, they are not proficient enough to be assessed in that language.

- P1: With the understanding, it difficult to know whether they answering as a guess or they are answering because they know it or whether they are answering based [o]n a pattern they are seeing. Um, so if they do not understand the question, or where you're going with the question, um, it is very, very difficult to say that it is a valid interpretation.
- P3: If a child was being taught in their school in their second language, for example, Afrikaans or English, after a period of 3 years when they had finished the foundation phase they were considered first language speakers, which meant that even though they spoke Xhosa at home, they could be assessed in English or Afrikaans depending on what class they were in, so that causes a problem.
- P4: So I think that language was the most prominent influence there. Besides the language, I think the cultural barrier has been a challenge for me. Also knowing the child's level of literacy and fluency in the language you are going to test in before you test.
- P5: I feel language is the most prominent barrier, but if you go to [sic] Zulu, it will also be difficult. The language that's used is irrelevant to today's clients, one of my clients asked me what a letter is.

Due to the above, the participants pointed out the need to overcome both the cultural and language issue in intellectual assessment measures. As a result, finding the most suitable assessment seems challenging for the practitioners. All the participants stressed the importance of developing appropriate assessment measures, but presented different suggestions for making

the process equitable and fair. The most viable suggestion was assisting in a non-verbal manner.

P4: It must be culture-specific and try take everyone's experience into account... And then it will be relevant in the different cultures. Not translating but developing something specifically for those cultures to use. So do not translate but develop assessments using the wisdom of that specific culture and possibly assessing non-verbally.

P5: There's a lot that needs to be done as there are a lot of controversies regarding the language barrier when doing assessments. There's a lot that needs to be done in terms of adapting assessments as they are not standardised for SA use.

P6: As I said, this may not be the case but there has been so much noise around this. I'm sure 20 years ago there were using tests in an inappropriate way and I hope it is not the case anymore. I think my only concern right now is that the child is fairly assessed and that we are not assuming that he understands things when he does not. And to always align what is language and what is intellectual/ ability because these things are sometimes confused.

Both language and cultural barriers seem to be a common theme throughout the narratives of the various participants. However, language alone seemed to be the most prominent theme. Bethlehem et al. (2003) state that South Africa is a diverse country and it includes a vast majority of languages and cultures. The uniqueness of this country in addition to the cultural diversity, is that eleven of its languages are accepted as official languages as stipulated by the Constitution of the Republic of South Africa (Bethlehem et al., 2003).

Based on the data, there seems to be a gap between the language of assessment, the language of the client and the language of the psychologist. These gaps can be seen as barriers to effective communication between the client and the psychologist as well as between the client and the assessment (O'Bryon and Rogers, 2010). In the current study, almost all the assessment measures that were conducted by the participants were not in the home language of the individual being assessed. The results of a study conducted by Zuma (2014) indicated that there are three levels at which language directly impacts assessment results, namely: the individuals'

home language, the language of the assessment and the language of the psychologist. Most assessment measures are in the English language. Van Wyhe (2009) and Zuma (2014) further state that this may be disadvantageous to South African individuals where English is either a second or third language. Based on the above, clients are therefore handicapped due to the mismatch between their language of proficiency and the language of the assessment. Furthermore, clients are at a further disadvantage because of the language barrier that may exist between the client and the psychologist.

Even though the focus of this research was specifically on the isiZulu language, it appears that the data obtained did not solely focus on this specific language and cultural group, but on a variety of indigenous groups. The interview data demonstrated that all language and cultural groups play a role in the challenges experienced by the client and psychologists in intellectual assessment procedures. This finding will be elaborated upon using the following headings; exposure, and language of assessment versus language of proficiency.

4.3.1 Exposure.

Participants emphasised how language and cultural barriers are a result of limited exposure. The Western-developed assessment measures seem to be relevant to only those individuals who have been exposed to Western concepts for an extended period of time. They are therefore familiar with the construct that is measured. Those who have not had such exposure are therefore at a disadvantage, which was a concern to most participants because the intellectual assessment measures are not relevant for all cultures.

P4: I think that they are not relevant to all cultures and I do also think that across the cultures, they are also very outdated. Um, you know we have moved forward with internet and cell phones and I think a lot of that now needs to be incorporated. Let's ask about rural and city life, not just making it based on what happens in the city. Like for the one example it says "why are buildings so high" – that's not particularly relevant especially if the live on a farm. You know, and asking questions about fishing season, it's not relevant to all the cultures and the South African experience

The Constitution of the Republic of South Africa states that South Africa is a country that values human dignity, equity and the advancement of human rights and freedom (RSA, 1996).

However, due to its uniqueness and diversity of its people, each experience is different, because of differences in exposure experienced by each individual in the form of, but not limited to, contextual exposure. As such, Vygotsky's concept of ZPD regards the sociocultural setting (context) as the primary and determining factor in the development of higher forms of human mental activity (Daniel, 2008; Turuk, 2008; Vygotsky, 1978). That is, the social and cultural context to which individuals have been mostly exposed is a contributing factor to their understanding of various concepts. Moreover, shared exposure amongst individuals facilitates common understanding. Difference in exposure and assisting in a non-verbal manner are the themes that will be elaborated upon to address issues relating to exposure.

4.3.1.1 Difference in exposure and understanding.

The interview data revealed a common argument regarding cultural relevance and differences in understanding. Some of content in intellectual assessment measures may not be what the South African diverse population is exposed to. As a result, the client will not understand what they are being asked, which will further affect their response and the interpretation of that response. Furthermore, some assessors expressed that they themselves sometimes do not understand what is asked, which raises the question, if the assessor does not understand, how is the client expected to understand and give an appropriate answer? There is thus concern regarding these differences in exposure and how they contribute to limited understanding of unfamiliar contexts and verbal content.

P3: Within the SSAIS-R, I think the absurdities... If the child is not exposed to tennis then they will not be able to tell that the tennis racket is missing. I think this has to do more with culture than language. The SSAIS-Z [has] words that I also do not understand.

P4: I wouldn't only focus on language because once you've established understanding, the problem becomes the presenting problem.

P5: The pictures are also not detailed or descriptive enough and children often ask what something is before they can answer the question. The vocabulary tests are also a big problem because there are some words that I do not even understand.

Given the above concern, South Africa has gone through an important transition regarding the development of some assessment measures that cater for some language and cultural groups (Foxcroft et al., 2004). This has assisted assessors, especially in taking into consideration language and cultural variety (Foxcroft et al., 2004). The assessment tools mentioned by participants here – the SSAIS and the JSAIS – were developed in English and were translated into isiXhosa, isiZulu, Northern and Southern seSotho, Tswana and Afrikaans (Foxcroft & Roodt, 2013). However, the participants emphasise that there are some problems in making the use of these assessment tools: although they cater for the different cultural groups, the language is old and sometimes it is irrelevant. As such, there is limited understanding on the clients' behalf. Even though there have been developments of assessment measures in different languages, these measures still seem irrelevant to specific language and cultural groups (Knowles, 2010; Van de Vijver & Rotheman, 2004). Foxcroft (2011) states that it is almost as if the Western assessment tool was directly translated without taking context into consideration. As indicated previously, Western language and culture do not have a common understanding with the isiZulu language and culture. Thus translating intellectual assessment tools still means that Western constructs of intelligence are used in the assessment measure. This does not facilitate understanding to the testees' from an isiZulu linguistic and cultural background, even when the translated tests are used (Individual Scale for Zulu-Speaking Pupils).

Due to this, the interview data reflected the importance of considering the different tribal exposures within each indigenous cultural group. That is, just as English is spoken and understood differently around the world, a majority of South African languages are spoken and understood differently around the country (Zuma, 2014). One participant specifically focused on the Individual Scale for Zulu-Speaking Pupils (SSAIS-Z). Some of the words that are used in the measure are complex and are sometimes difficult for the assessor to understand. A study conducted by Munyai (2013) found that one of the prominent challenges in using current available tests is the inconsistency of the language that is used in the assessment. More specifically, isiZulu-speaking participants have found it difficult to assess isiZulu-speaking clients (Munyai, 2013). This is because of the outdated language use and norms that do not relate to the currently spoken isiZulu language. In such cases, it is difficult for the client to understand what they are being asked, even when they are asked in their home language. It is equally difficult for the isiZulu speaking assessor to not intervene and assist in explaining in a more familiar form of isiZulu. To solve this, a participant emphasised that translation that is

context-specific, and others believed that the development of new assessment measures would be more appropriate than translation.

P3: I think I would translate some of the assessments because I think I've worked closer to home; I am from KwaZulu-Natal. I think I would translate the assessments to Zulu that I myself would understand. I think I would also advocate for translations to be made according to people's tribes.

P2: Not translating but developing something specifically for those cultures. So do not translate but develop assessments using the wisdom of that specific culture.

Thus limited understanding is not only a result of limited exposure to the English language, but different indigenous tribal experiences also play a role (Sesthedi, 2008). Translating assessment measures into these different tribal languages could be a possible solution and could bridge the gap between the difference in exposure and providing a common understanding. There is, however, a continuing debate amongst psychologists because of the overall process of developing and standardising assessment measures (Foxcroft, 2011; Sesthadi, 2008). As previously mentioned, the development of assessment measures is a long process, and is expensive (Foxcroft, 2011; Laher & Cockcroft, 2013). Given this reality, the development of a tribe-specific assessment is possible but seems farfetched. Knowing these realities, some psychologists have made the use of alternatives such as assisting in a non-verbal manner to facilitate common understanding.

4.3.1.2 Assisting in a non-verbal manner.

The visual aids (pictures) in the assessment measures seem to be a concern when it comes to issues of exposure. Based on the interview data, it seems that is not only the verbal content that is outdated, but so is the visual content. Clients therefore cannot relate to this visual content, which the data suggests this may be due to their limited exposure. In addition, some of the pictures are not detailed or descriptive enough and it is sometimes difficult to make out what is drawn, which makes answering the question difficult for the client. Some of the pictures are also difficult to comprehend.

P1: I would use more pictures, easy words, allow maybe things that are more relevant. The questions need to be more up to date and child friendly. I remember for

instance when I used the Bene Anthony, and if you look at the figures, they all really nice figures. I remember we use to have them in different characters (Japanese, Chinese), you could develop things. I remember for the CAT, we were trying to find an artist that would use pictures that are more relevant.

P5: The pictures are also not detailed or descriptive enough and children often ask what something is before they can answer the question. The vocabulary tests are also a big problem because there are some words that I do not even understand.

Moreover, when an individual's verbal intelligence is low, psychologists rely on non-verbal intelligence. This non-verbal intelligence is assessed using the visual content of the assessment measure. However, the manner in which the visual content is presented makes it difficult for clients to represent their true non-verbal intelligence, and as a result, non-verbal intelligence cannot be accurately assessed. Almost all the participants mentioned that they would change these pictures and add some colour to make it more interesting for individuals, especially those who are visual learners.

P1: Wow, I would change all the pictures – the pictures are so old and I do not think they are culturally relevant. More vibrant and attractive non-verbal pictures. I do understand that the pictures need to be vague but I certainly do think they look to me like the 50s. Also some of the words, having questions that deal with high buildings and having to explain to them what high buildings are.

Generally, in all intellectual assessment measures, verbal and non-verbal intellectual abilities are assessed separately (Flanagan & Harrison, 2012; Foxcroft & Roodt, 2013). That is, one is considered in isolation from the other before they are interpreted together in forming the overall intellectual score (Flanagan & Harrison, 2012). Psychologists usually determine the individual's strength based on the two results. A client's non-verbal abilities may be slightly more developed than their verbal abilities or vice versa (Flanagan & Harrison, 2012; Knowles, 2010). The psychologists will therefore report on that strength when feedback is given. However, to accurately determine this strength, the visual content in the assessment measure has to be clear, relevant and up to date (Flanagan & Harrison, 2012). Based on the interview data, the visual content is outdated and is not appealing. Non-verbal content, especially pictures, are not relevant thus potentially misrepresenting a client's actual non-verbal ability.

Furthermore, the participants suggested that the pictures need to be visually appealing through the use of colour. DeThrone and Schaefer (2004) state that visually appealing stimuli is generally more attractive. This, according to Knowles (2010), increases alertness and interest and may possibly positively influence performance on the assessment. If any of the assessment content (verbal or non-verbal) is irrelevant, then it will not accurately demonstrate the client's potential in that domain (Foxcroft & Roodt, 2013). Attempts have been made to update the non-verbal content, but once again, this is a long and costly process.

Limited understanding on visual content may also be due to lack in exposure (Flanagan & Harrison, 2012). Participants mentioned that there are some pictures in the assessment to which the individuals may not have been exposed. An example was made about a similarities subtest. The participant indicated that some individuals may not be familiar with some sports such as tennis, thus would be unable to identify what is missing in the picture.

Both verbal and non-verbal abilities determine the overall intellectual ability (Flanagan & Harrison, 2012; Foxcroft & Roodt, 2013). Based on the above discussion, assessing in a non-verbal manner seems to be the most appropriate alternative to the verbal challenges experienced in assessing intelligence. However, due to the outdated nature of the non-verbal content, accurate representation is compromised. In addition, the language of assessment and language of proficiency appeared to be a contested issue amongst psychologist, and will be discussed below.

4.3.1.3 Language of assessment versus language of proficiency.

As emphasised in Vygotsky's sociocultural theory, human activities that take place in a cultural context are mediated by language and other symbol systems that lead to the development of knowledge and intelligence within an individual (Vygotsky, 2008). In other words, language is a tool used by different cultural groups in society to construct and define identities (Claassen, 1997; Dlamini, 2009; Sehlapelo & Terre Blanche, 1996; Vygotsky, 1978). Therefore, the language in which a client speaks and is assessed in is of vital importance. When assessing a diverse pool of individuals, it is vital that there is equal and fair accommodation of language diversity in assessment procedures (Foxcroft, 2011). The interview data suggests that the assessment language and the individual's language of proficiency should be at the same level of proficiency. That is, there should be consensus between the two. Considering previous

discussions, it is evident that there is a lack of this, thus psychologists are tasked with finding the most suitable assessments themselves.

4.3.1.3.1 Proficiency.

The findings suggests that it is very difficult to speak in a language with which one has little or no proficiency. It is equally as difficult to be assessed in a language in which an individual is not proficient.

P4: Answering in a language in which they are not proficient in is a big ask.

P4: Um, for me, because I do a lot of special needs, it's not necessary the language aspect but before you do an intellectual assessment, the child should have a visual and hearing assessment because that impacts it tremendously. So what you think is a language problem could actually be hearing problem.

As mentioned in the section on difference in exposure and understanding, in some cases it is difficult for even the assessor to understand what the assessment is asking. Consequently, the instructions that the assessor gives are affected, which further impacts upon the understanding of the individual being assessed. One participant mentioned that if a child speaks isiZulu at home and they are in the foundation phase (grade one to three), they do not have much exposure to the English language in which they are being assessed in. This, means that they may not be proficient in that language. Similarly, another participant emphasised a concern on how after three years in the foundation phase (grade one to three), children are expected to be proficient in the language in which they are taught. Thus it is expected that they are proficient enough to be assessed in that language regardless of their background. The interview data also emphasises how the appropriate foundation and consolidation of one language needs to be facilitated in the first three years of education. During these years, it is only appropriate for an assessment to be conducted in foundational, first languages, determining intelligence that is based on their cultural and linguistic exposure. Doing so is particularly necessary for younger clients. Munyai's (2013) study concluded that young learners often have little proficiency in their second language of instruction due to exposure to a diversity of language and cultures. Therefore, assessing intelligence in their first language would be more effective.

Even so, Mdlalo's (2013) study concluded that if the individuals had a high proficiency in both languages, they preferred being assessed in English. Yet although they could opt for English (which is their first additional language), there is a possibility that there could be concepts that they would not fully comprehend. This is because terms which are used within English language may be understood differently when translated into isiZulu or any other language (Mdlalo, 2013).

The interview data also supports the assertion that concepts and statements are understood differently in different cultures. Taking into account the literature and data, it seems as though being assessed in one's home language is ideal during the early education years. Moreover, once one has become proficient with the English language, being assessed in this language as opposed to one's second language may be more of a disadvantage than an advantage. This disadvantage also results from the fact that language is not the only consideration in an assessment. Culture also plays a vital role, and cultural understanding is not consolidated in the same way that language is. While a client may understand and accept the Western culture, they may continue to live according to the values and practices of their own. Therefore that client's understanding of intelligence is still in accordance to their culture.

The above is not only an implication of assessment measures conducted in English, but is also an issue for those who conduct and are assessed using other languages. As mentioned in the section on difference in exposure and understanding, it would be more appropriate if there were tribe-specific assessment measures (for example, different versions of an isiZulu intellectual assessment). One participant stated that the incorporation of different language styles would be beneficial, and would cater for the variety there is in language groups. As Patterson and Uys (2005) and Foxcroft (2011) note that the process of psychological test development is complicated. Even so, this seems to be a possible middle ground that could facilitate understanding for both the assessor and the client (Foxcroft, 2011).

For those participants who work with individuals with special needs, there was also an emphasis on screening for hearing and visual problems before concluding that language as a barrier. According to the data, most of the time, language is automatically seen as an influence on the individual's intellectual performance. Whereas visual and hearing problems impact tremendously on the learning of an individual, as well as their performance on some assessment measures. Wilkinson, Culpepper and Cerreto (2007) support this assertion through stating that

ear and eye tests form part of a holistic assessment, because they are vital senses that are used in any form of intelligence assessment (Wilkinson, 2010). Furthermore, once eye and ear problems have been ruled out, then difficulties can be associated to other factors relating to intelligence. What an assessor may see as a language problem, actually may be a hearing or a visual problem that needs to be addressed.

Participants emphasised on how requesting individuals to respond in a language in which they are not proficient in is a huge ask. This is due to the potential language barrier. As mentioned above, non-verbal or visual aid may be seen as a bridge between language as barrier in intellectual assessment. Therefore, a solution to language as a barrier is using visual aid as opposed to verbal instructions. Foxcroft et al. (2004) state that intellectual assessment tools are too dependent on language and verbal skills and are not appropriate for individuals who are from a diverse cultural and linguistic background. A majority of the interview participants mention that when they struggle in verbally explaining something in the assessment measure, they use hand gestures and pictures. One participant mentioned that pictures seem to be easier to understand than words. Another mentioned that it is easier to connect with the client when there is mutual understanding through the use of pictures. They are relevant to all individuals and in most cases they are culturally fair if they are updated and context-specific (Foxcroft, 2011).

While sometimes language itself is a barrier, other issues may affect the assessment. It is thus important for the assessors to refer to the presenting problem. The reason for referral is very important, and forms the basis for the decision taken on the type of test to be used. Therefore, it is not only language that needs to be addressed and resolved as a barrier, but the overall reason behind the assessment being conducted. This could also affect finding the most suitable assessment.

4.3.1.3.2 Finding the most suitable assessment measure.

Due to language and culture being a barrier, finding the most suitable assessment measure that will appropriately cater for the different language use and cultural exposure among individuals is a challenging task that psychologists have to face each time they assesses a new client. The interview data suggested that finding the most suitable assessment measure is one major duty that is of vital importance, and is in fact the foundation of the overall assessment process.

P1: So I think my most challenging experience has been trying not to overstep the client or invalidating the test. And also finding a test that is exactly suited for them.

P6: I think its misuse, I think I put a lot of energy in trying to find out which test suits the child exactly, which test is appropriate for the child. Because as much as the child can be in the same range as the test, the other assessment may be best suited for the child than the current one. So I think that's the main thing, finding a test that is properly suited. You rule out the age and culture but try find the closest at least because chances are that you won't find an assessment that is perfectly suited for that child.

Once a psychologist is confronted with a situation where they have to assess an individual who is from an indigenous language and cultural background and they know that the individual may not be proficient in English whilst attending a school in which they are taught in that language, they are tasked with finding a measure that will appropriately assess the individual. That is, assessing their intelligence as opposed to their ability to speak the English language. Doing so, as stated in the section on proficiency, means that the psychologist rules out any other potential barriers to the assessment procedure such as hearing or visual difficulties, and addresses only the presenting problem.

Based on the research findings, it is difficult for psychologists to find the most suitable assessment measure, for various reasons. Firstly, there is limited availability of appropriate assessment tools. Secondly, this difficulty is a result of differences in language and cultural exposure. Therefore, it is a challenge for psychologists to strike a balance between the two. Suzuki and Ponteratto (2007) states that finding the most suitable assessment measure is the most challenging part of the intellectual assessment process, particularly in a diverse context. Furthermore, the findings from Munyai (2013) indicate that the multicultural environment within South Africa leads to difficulties in selecting a suitable assessment battery that will consider the country's language and cultural diversity. For these reasons, the data concluded that it is not entirely possible to find a perfectly suited test battery that will accurately reflect an individual's true intellectual ability. It is therefore necessary to include a variety of tests in the assessment battery that will assess the same construct in different ways (Munyai, 2013). As

shown above, it is also important to include non-verbal tests in the test battery, which will assist in a more accurate interpretation of the results.

4.4 Interpretation

The concerns discussed above ultimately have a negative impact on the interpretation of the assessment results. According to Bornman et al. (2010), the psychologist and the individual being assessed using the available intellectual assessment measures both face challenges. These challenges are not only present before and during the assessment processes, but are evident even when the assessment has been completed (Bornman et al., 2010). Such challenges include appropriately and effectively interpreting the results and conveying understanding of the interpreted results and recommendations to the client. These challenges make it difficult to provide appropriate interpretations and recommendations without negatively labelling and stigmatising the individual being assessed. These problems above will be elaborated upon in the sections below.

4.4.1 Labelling and stigmatizing.

The interview data emphasised on the difficulty that there is in assessing a client from a diverse language and cultural background with the available intellectual assessment tools. In addition, there are effects on the interpretation of the results, which could potentially result in the clients being labelled or stigmatized. This seemed to be a concern amongst participants.

P1: The interpretation... obviously you need to put in there that it was not done in the child's home language or even language of learning in most cases. Um, with the interpretation, it is difficult to know as to whether that is the child's true intellectual ability. Um, because if they did it in their own home language, they might have achieved a much higher result and they might be average instead of below average...I think what really concerns me the most, is not really on [sic] diverse individuals, it's on [sic] everybody and someone can be labelled based on those results. So I think my biggest concern is whether the test is able to give an accurate reflection of everyone and secondly what do the people do [sic] with that information. And sometimes they are at a risk of holding a label.

P4: That's what concerns me the most, labelling, stigmatising etc.

As stated above, intellectual assessment measures and their results have a major effect on an individual and their future (Verney, Granholm, Marshall, Malcarne & Saccuzzo, 2005). This is because the results of the assessment are often used to guide further education and career, and affect mental and emotional health. Therefore, the interpretation of these results needs to be done with caution. However, the interview data raised concerns with regards to the information generated from the assessment and how that information is ineffectively used. This was supported by Gottfredson and Saklofske (2009) who states that due to the language and cultural barriers, it is difficult to determine whether the assessment results are an accurate reflection of a client's true intellectual performance. Thus there is bound to be misinterpretation of some sort, which in turn could negatively affect an individual's educational- and career-related decisions, as well as mental and emotional state. It may also lead to the client being labelled, which could possibly, positively or negatively, influence their chances of succeeding in the above avenues.

To address these concerns, it has been pointed out that the participants sometimes used translators. However, the data raised further concerns relating to the use of these translators during the assessment process and interpretation of the results.

P1: I tried using a translator, which didn't work because it sometimes influenced the subtests which means that the results have to be interpreted with caution.

As mentioned in the section on appropriate use of assessment, there are other issues associated with making use of translators (Ochoa, Riccio, Jimenez, De Alba & Sinez, 2004). Foxcroft (2011) points out that although the use of translators has become popular in assessment procedure, it seems to do more harm than good. Due to there being a third party in the overall assessment procedure, the necessary precautions to accommodate this need to be taken into account (Foxcroft, 2011; O'Bryon & Rogers, 2010). Amongst these precautions is the results need to be interpreted with caution. Foxcroft (2011) states that this is very difficult to do because often the psychologists are not aware of inaccurate translation. Instead, they are under the impression that they are assisting the client by providing a means to navigate the language barrier. Due to this unawareness, the results are interpreted based on standard procedures, with limited caution.

Foxcroft (2011) also states that the use of a translator should be clearly stipulated in the report that is given to the client. According to the HPCSA (2014), doing so is not only ethical, but it will make any other professional who comes in contact with the report aware that a translator was used, so the results should to be interpreted with caution.

Participants also believe that the assessment results generate information that is inappropriately used, and the client is negatively labelled either at school or they are denied a position at work. Labelling is understood to be an inaccurate or restrictive classifying phase or name that is applied to a person (Du Plessis, 2010). Du Plessis (2010) further states that this label is based on one's level of understanding. However, as argued throughout this thesis, individuals have different ways in which they understand certain concepts. This is due to language and cultural differences. For example, if the assessment results reflect an individual as being intellectually impaired, based on one's understanding, the term intellectual impairment may mean a step away from "stupid".

P3: We tend to judge a book by its cover by judging a child by what we see or what we have been told. In the end, the case turns [sic] to surprised you.

P3: I think psychologists should live by the principle that you do no harm. So whatever you do, you need to bear in mind that this is a person, this is a human being so the assessment might (as much as we psych-educate that people shouldn't put labels on people) put a label on the client.

Individual experiences and interaction play a big role in the development of intelligence. That is, understanding is context-specific and is dependent on a relevant social group. This is central to Vygotsky's theory (Vygotsky, 1978) which emphasises the importance of immediate interaction (Vygotsky, 2009). The understanding of what intellectual impairment is and how it affects the individual is based on the perception of the individual's immediate context (Vernon, 2014). Therefore "judging a book by its cover" may be judgement that is based on contextual understanding.

In addition to having an impact on an individual's academic, work and social potential, labelling may also have an effect on the individuals' self-esteem and motivation (Pyankova, Baskaeva, Chertkova & Parshikova, 2016). As much as a client's future is important, their

current well-being is just as important. Being labelled based on assessment results is a traumatic experience and goes against the overall principle of being a psychologist (HPCSA, 2014; Payankova et al., 2016). Even though the HPCSA clearly stipulates that the aim of all psychological professionals is to do no harm to clients, the above is a clear example of how clients may be harmed through the assessment process.

Based on the above, some participants raised concerns regarding the reception of assessment results. The data suggests that this is especially prominent in the schooling environment. Most participants referred to this disgrace as stigma. Clients, mainly children who are underperforming at school, who are classified as intellectually impaired have a stigma attached to them and are treated differently by their classmates and teachers. This then result in them believing that they have limited potential. Similarly, these children may also be treated differently within their families and the community.

P4: I just worry about stigma attached to children who are shown to have lower intellectual functioning and again my concerns are about what is available to help such children who do have lower intellectual functioning. Is there enough support for these children, whichever jurisdiction they live in and do we as psychologists know where to find that intervention? That is, what concerns me the most, labelling, stigmatising.

A participant emphasised that a child's strengths should be highlighted and weaknesses should be considered as areas of development as opposed to the weaknesses being final. Thus it was emphasised how feedback should not be used to label the child, but rather to highlight the child's strengths and provide suggestions on how the weaknesses can be improved.

P6: And I also wonder if people know the value of what is it we are really trying to prove. Are they are aware that this is done to find the child's strengths and their areas of improvements

Due to the stigma that has been placed on these children and the limited support they may receive from their families and schools, they show limited improvements and face further difficulties that could possibly result in emotional issues. Foxcroft (2011) states that in this way, psychologists and both the assessment and interpretation process are doing more harm

than good. Instead of the assessment results being interpreted and understood in accordance to the individuals' strengths and areas of development, they are interpreted in a way that has a negative influence on the individual emotionally and in a way that obscures the individual's potential (Gottfredson & Saklofshe, 2009; Laher, 2010; Payankova et al., 2016).

A participant was also concerned about the limited training and preparation amongst psychologists. Proper training and preparation could assist psychologists in working in a diverse environment with the use of available assessment tools. The participant also emphasised the need for continuous consultation with colleagues and supervisors, as well as the need for development programmes, which would help enhance psychologists' skills in working in the diverse South African environment.

Research also states that interpretation errors may be the result of psychologists' limited competency (Foxcroft, 2011; Foxcroft et al., 2004; Miller, 2011; Ochoa et al., 2004). This may be partly due to the level of education and training they obtain, which is, according to Ahmed and Pillay (2004), not enough. Furthermore, once adequate education and training has been obtained, there is little effort in adding upon their psychological knowledge (Foxcroft, 2011; Ahmed & Pillay, 2004). That is, there is limited workshop attendance and a lack of consultations with peers and supervisors. Thus upon receiving an assessment report, conclusions are made based on what the reports says and further investigations to support these conclusions are not done. This practice has a negative implication on effective interpretation of the assessment results, and was a genuine concern amongst the participants. While doing no harm to clients is an ethical code that is emphasised by the HPCSA (2014), it seems that assessment interpretation is doing more harm than good to a client's current well-being and future success. Therefore the appropriateness of assessment interpretation is therefore questioned.

4.4.2 Appropriateness of assessment interpretation.

While appropriate interpretation is important, so are the steps taken after this interpretation. This includes how the results and recommendations are conveyed and how appropriate they are for the individual being assessed. The interview data suggested that inaccurate interpretation may be a result of using assessments in isolation. Inaccurate interpretation of the recommendations by clients is also a possibility. These issues will be discussed in the sections below.

4.4.2.1 Using assessments in isolation.

Participants emphasised on how intellectual assessment tools are used in isolation to determine the overall intelligence of an individual. In other words, they are the only test in the battery that is used to determine individuals' intellectual ability, thus providing only a single view of an individual in a single context, as opposed to a holistic view of the individuals' intellectual abilities. Working holistically includes an assessment battery that does not only consist of intellectual assessment measures. Rather, the assessment battery should include other forms of assessment measures that tap into emotional and sensory abilities.

It was also shown that most participants have a standard assessment battery that they use in determining an individual's overall intelligence. Through this battery, the psychologist is able to see the pattern that emerges regarding the individual's intellectual functioning. For example, if an individual obtains a low intellectual performance and the emotional assessment demonstrates that there are some emotional issues, then the underperformance in intelligence may be a result of emotional factors as opposed to intellectual ability.

P4: Using the assessment in isolation does not give me a holistic view of the child. I work holistically with the child, so I cannot just use the intellectual assessment but I use emotional and sensory assessments. If a child is going through a tough time at home and they get a low intellectual result, this performance may be based on emotions, which is why I use emotional assessments. I also make use of scholastic assessments. Some subtests in assessments such as the WISC you can use to ascertain some other aspects of a child.

Foxcroft et al. (2004) clearly states that assessment tools should not be used in isolation, as doing so does not provide a holistic view of the client. Paterson and Uys (2005) also emphasise that using intellectual assessment tools alone provides only a one-dimensional view of the client in one setting, using one assessment tool that may be inaccurate. An ethical dilemma therefore arises, because intelligence is not only measured through intellectual assessment tools, but can also be measured through other, additional assessment tools such as emotional and sensory assessment tools (Foxcroft et al., 2004; Foxcroft; 2011; Laher, 2010). Furthermore, in the ITC (2010), it clearly states that aside from assessment measures being used in isolation, the interpretation must not be done in isolation either. The ITC (2010) adds that test results are

an additional source of information and using them in isolation should be avoided. Thus intellectual assessment measures should be interpreted along with, for example, emotional and sensory assessment tools. The data suggested that there are also other assessment measures that can be used. Emphasis was placed on scholastic assessment measures, which can form part of the intellectual assessment battery and provide a holistic view of a child.

DeDonno, Rivera-Torres, Monis and Fagen (2014) state that scholastic assessment measures can make a meaningful contribution towards determining a child's intelligence. They assess skills relating to reading and writing, which are very important skills that form part of intelligence (Foxcroft et al., 2004). They work together with intellectual assessment measures in determining the child's level of scholastic functioning (DeDonno et al., 2014; Frey & Detterman, 2004). A study conducted by Frey and Detterman (2004), aimed at establishing the relationship between Scholastic Assessment Tests (SAT) and general intelligence tests (*g*), as well as the appropriateness of the SAT as a measure of *g*. The results indicated that the SAT is mainly a test of *g*. Therefore, scholastic assessment measures form part of determining the child's intelligence and are vital in determining a child's educational future (Frey & Detterman, 2004). This was consistent with Deary, Strand, Smith and Fernandes (2007) study who identified a correlation between intelligence and scholastic achievement. This supports the assertion that intellectual and scholastic assessment tools should be used together in providing a well-rounded understanding of the child to assist in education progression.

In addition, according to Cabbage et al. (2017), using a comprehensive assessment battery may also be a way in which the assessors can double-check the results of one assessment. Doing so may also be a way in which the assessor can rule out any other factor that may influence the intellectual difficulty experienced by the client. Therefore interpretation is not based on just one assessment tool but a battery of assessment.

Furthermore, interview data and other forms of collateral information (previous medical, scholastic and psychological reports) are very important in appropriate interpretation and in facilitating appropriate recommendations. There could be relevant information that comes from these sources of information that may assist the assessor in appropriately interpreting the assessment.

P6: I remember once the child was sent to me because she struggled scholastically. The child was battling with English but she was in a school where English was the medium of instruction. She struggled with English because of her background, because her parents were illiterate. So my duty was to find an appropriate assessment for her – an assessment that was going to assess her IQ and not her ability to speak English. A test that would say that this child has a potential, not a test that would assess her English because I already knew that she could not speak or read English. She was 6 years old, and as much as she was in an English medium school, the JSAIS would not be appropriate because she could not speak or read English, so I had to opt for the McCarthy. But most things there are non-verbal. So I think that's the main thing, finding a test that is properly suited. You rule out the age and culture but try find the closest at least because chances are that you won't find an assessment that is perfectly suited for that child.

Information gathered during the intake interviews and collateral information provide important information (Drummond, Sheperis & Jones, 2015). When psychologists use this information along with the assessment results, they are not using the results in isolation. Rather, they are viewing the child in a holistic manner (Foxcroft et al., 2004; Laher, 2010). This benefits the child because all aspects of their lives are taken into consideration. It further benefits the psychologist in understanding the child holistically during interpretation (Foxcroft & Roodt, 2013). Given the participants' experience above, it appears that a child's academic performance will somewhat be affected by genetic factors. Sarsour et al. (2011) also argued that family socio-economic statuses also have a huge influence on a child's academic performance. Such instances are the reasons why additional information should be used alongside intellectual assessment results, and why effective interpretation cannot be made based on one source of information.

The participant believe that even if it is not possible to find an assessment that is best suited for the child, professionals should not use intellectual assessment measures in isolation and they should consider additional information given by the client. Following these guidelines would improve the recommendations that are made and the support that is given to the client.

4.4.2.2 *Recommendations, support and understanding.*

After interpretations and recommendations have been made, where does the individual start, how much knowledge does the client have about the label and the recommendations made, are these recommendations appropriate, and are they viable for the client? These are some of the questions that arose from the interview data and were of concern to professionals. Once recommendations are given, it is important that understanding is facilitated and the appropriate support is given.

P6: I do not think the problem is with interpretation, but rather, what do you really do with that information, what recommendations are we as psychologists giving to parents and in the report itself, how are they able to report that information and do something about it. Are you really understanding what I am saying to you, am I explaining it in a simple enough way, are the recommendations I am giving you viable to you? – that’s what I always try and think about, and what do we do from here. So maybe in that way I think that’s what I am concerned about relating to assessments.

Recommendations are given after the interpretation has been made (Foxcroft & Roodt, 2013). They are one of the most important outcomes of any assessment process, helping the client to address their areas of development and facilitate improvement (Foxcroft., 2004). However, the above extract from a participant questions the manner in which recommendations are made. According to Laher and Cockcroft (2014), providing appropriate recommendations after an assessment has been administered is still an issue in South Africa. In addition, Foxcroft (2011) notes that irrelevant recommendations are a build-up on the already existing ethical assessment issues. Thus the interview data suggested that the recommendations need to be context-specific; that is, they should be viable for all individuals, even for those in rural parts of South Africa (Tuane, 2010; Turchik, Karpenko, Hammers & McNamara, 2007).

The meaning and understanding of these recommendations by the clients are also of concern to many professionals. The interview data suggested that most individuals, especially those who are from a diverse language and cultural background, do not understand these recommendations. According to Whitbourne (2012), psychological jargon and the manner in which it is used in reports and recommendations sometimes creates confusion to some individuals. One researcher states that the recommendations that are in assessment reports are

not client friendly (Flangan & Harrison, 2012). That is, they are written in a way that is best suited for the professional to understand and the client has limited understanding (Flangan & Harrison, 2012; Foxcroft, 2011). This detracts from the purpose of the recommendations that are included in these reports. The report is initially meant to be for the client, so recommendations should be written in a way that facilitates understanding to the client (Flangan & Harrison, 2012; Foxcroft, 2011). Furthermore, the recommendations that are made must be appropriate and viable to the client. This means that if there are referrals that are to be made to other professions, these professionals must be in reach to the client. Schank, Helbok, Hammers and McNamara (2010) conclude that clients often feel like they are “thrown back and forth” by healthcare professionals. This suggests that in addition to their limited understanding, they have a limited amount of support.

Participants raised concerns regarding the support that is given to the individuals after recommendations have been made. Some clients, especially those who are from disadvantaged backgrounds, do not know where to start and are often sent from one professional to another without obtaining the assistance that they desperately may need. Evidently, this is beyond the assessors’ control, however, support may be the final step in acting in the best interest of the client during the assessment process. As such, the data reflects the importance of the professional providing consistent support to these individuals in the form of frequent check-ups immediately after the assessment has been completed.

P4: Usually, professionals do not check up on the individuals after the assessment.

P6: Also what support is available to the child, so he needs some sort of remediation but where does he go? So where are the schools, who support this? So my concern is learners’ support after the intervention. Also, do we really follow up? So the assessment is done, what happens after that? I also hope that whatever recommendations I make are fitting with the culture and if the finances are available.

Even with this suggestion, most participants argued that constant check-ups is impossible, especially for those working in the public sector. Turchik et al. (2007) state that in addition to the large numbers of clients that are seen in psychological practices, adequate services are limited in rural areas. Although the interview data reflects the importance of constant support,

it is sometimes not possible due to factors that may be beyond a professional's control (Ruane, 2010; Turchik et al., 2007). Therefore the best way to provide support for a client is by providing appropriate recommendations from the start – that is, recommendations that are appropriate, easily understood and viable. Doing so will immediately make the individual feel supported (Schank et al., 2010).

In conclusion, if the intellectual assessment results are incorrectly interpreted, then the child is judged based on the interpretation. They will be labelled and stigmatised based on this faulty interpretation. The above two themes are therefore put together because the one leads to the other. After the results have been interpreted, and before any conclusions are made, it is firstly very important to have access additional information (interview, previous medical or scholastic reports etc.) in order to provide a holistic view of the individual. A conclusion cannot be made based on a single source of data. Secondly, it is important to provide appropriate recommendations, facilitate understanding and provide support. As such, the practitioner should provide recommendations that are viable for the individual, and ensuring that they understand the results, recommendations made and what they are expected to do from there onwards. Although support in the form of guidance check-ups is something that may benefit individuals, professionals feel that doing so would, for various reasons, be too difficult.

4.5 Conclusion

This chapter presented and discussed the findings that emerged from the interview data collected for this study. Issues related to language and exposure to Western concepts of intelligence seem to be the main barrier and a concerning limitation to the appropriate use of Western intellectual assessment on individuals from an indigenous linguistic and cultural background. Using such measures leads to limited understanding among the testees', which further impacts administration and recommendations. Even though the issues above have been partially addressed through the development of some South African assessment measures, these measures are not context-specific. Moreover, there is still a concern about how the intellectual assessment results are interpreted, and if the client understands the interpretation and recommendations made. Psychologists are thus trying to address the fact that support seems to be lacking throughout the assessment procedure.

In sum, intellectual assessment measures have been used for many years, and based on the findings, it seems as though they are still very useful, however, they still pose some linguistic

and cultural challenges that the participants in this study have individually tried to overcome through their different experiences.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter will summarise the study. It will present a discussion of the conclusions drawn from the findings in relation to the research questions. Furthermore, the significant contributions made by the study, together with the study's limitations. Lastly, recommendations for further research will be made.

5.2 Summary of the Study

The study was undertaken to explore psychologists' perception on the influence of the isiZulu indigenous language and culture on intellectual assessment. Given the Western intellectual assessment process that is used on this population group, it was crucial to gain the psychologists' perception on the effectivity of this process and procedure. The study also sought to bridge the gap in literature, as there is little research conducted relating to the influence of the isiZulu language and culture on intellectual assessment from psychologists' perspective.

The study aimed at investigating the concept limitations of Western intellectual assessment tools when assessing individuals from an indigenous linguistic and cultural background. Additionally, the barriers in the intellectual assessment tools, which cannot be defined using the general concept of intelligence when applied to individuals from indigenous language and cultural groups were identified. The psychologists' experiences of assessing isiZulu first language speaking individuals using Western-developed and adapted intellectual assessment tools was thus gathered. Lastly, the study aimed at generating provisional guidelines that can be used by psychologists to manage and adapt the assessment tools as well as the interpretation of the findings from diverse language and cultural groups in an accurate, unbiased manner.

The above aims were achieved by qualitatively collecting data from participants'. The data was collected through semi-structured interviews. This was to accurately gather the participants' experiences in using intellectual assessment. It was then analysed using thematic analysis. This form of data collection and analysis was in line with the theoretical understanding that formed a foundation of understanding for this study. Vygotsky's sociocultural theory is based on the belief that reality consists of people's subjective experiences and external world (Bryman, 2004

Daniels, 2008; Vygotsky, 1978). It stresses the need to put analysis into context. This understanding was an important part of the study, as the psychologists' experiences were put into context.

5.3 Summary of Findings and Conclusions Drawn

The summary derived from the findings of the study and the conclusions that were made are presented in the sections below, and discussed in relation to the research questions.

5.3.1 Research question 1: What are the limitations regarding the use of Western intelligence tests on individuals from different cultures?

Based on the findings, the overall use of intellectual assessment in the South African diversity is concerning. There are some limitations that are still heavily affecting the use of the assessment on individuals from different linguistic and cultural groups. Literature states that this situation is a result of the history of apartheid and the administration of Western-developed intellectual assessment measures. The findings also showed that the limitations include inappropriate contextual use and administration of assessment measures, as well as linguistic and cultural limitations.

One of the limitations regarding the use of Western developed intellectual assessment measures on different language and cultural groups is the appropriate use of these assessment tools which will result in the most accurate representation of an individual's true intellectual ability. Even with this major implication, this study concludes that current intellectual assessment measures are outdated and are not relevant to diverse cultural groups. Paterson and Uys (2005) state that the contextual background of the assessment tool contributes to this irrelevance. Since the assessment tools that the participants in the study use are Western-developed, they are relevant to the Western context and do not consider other South African context. Thus it was concluded that these assessment tools inaccurately represent an indigenous individual's true intellectual ability.

It was also found that the appropriate administration of intellectual assessment tools is vital due to the life-long implication the results may have on an individual's life. However, it was concluded that there are very limited instances in which these tools are administered appropriately. The HPCSA (2014) clearly stipulates that psychologists are to do no harm to the clients to whom they are providing a service. However, psychologists are subconsciously doing

harm because of challenges they experience in appropriately administering assessment measures.

The challenges experienced in appropriately administration of assessment measures is due to the limited training that professionals receive along with the limited available assessment resources that are language and cultural appropriate. It was concluded that contextual training needs to be considered in the training of psychologists to increase their psychological knowledge. Doing so will potentially rule out the limitations they themselves pose when delivering cultural appropriate assessment services.

The use of a translator was also a limitation regarding the use of Western intellectual assessment tools. Based on psychologists' experiences, translators are generally used in an informal manner. They are not appropriately trained to translate what is required in an effective manner. This may interrupt the sensitive nature of intellectual assessment, and thus have a negative implications on the results, which further influences interpretation. In addition, a lack of resources was also a limitation in Western intellectual assessment on individuals from different cultures. This is specifically referring to resource centres that provide psychological services at no cost. Based on the psychologists' experiences, this was a challenge and the discussion concluded that there is a need for well-resourced assessment centres with intellectual assessment tools in different languages and well-trained practitioners. It was believed that these would alleviate most of the challenges that are experienced by both the psychologists and client during intellectual assessment procedures. However, the limited attention on South African psychological services makes this possibility unlikely.

Lastly, language was a limitation regarding the use of Western intellectual assessment measures on different cultures. There seemed to be a gap between language of the assessment, the language of the client and the language of the psychologists. These gaps are simply understood as communication or language barriers between the client and the psychologist and between the client and the assessment. This was a concern raised by participants who have assessed individuals who are from an isiZulu language and cultural background. It was concluded that this language barrier has a negative influence on the psychologists' appropriate administration of assessment tools as well as clients' understanding of the content in the assessment tool.

Over the years, assessment tools have been developed and adapted (Foxcroft & Roodt, 2013). Even with these attempts, the assessment measures still have some limitations, which misrepresent South African intelligence. Due to this limitation, there are difficulties that are experienced by individuals who are from diverse backgrounds – specific to this study the isiZulu indigenous language and cultural background – when using Western-developed and adapted intellectual assessment tools.

5.3.2 Research question 2: What are the perceived difficulties that are experienced by individuals from an isiZulu linguistic and cultural background when assessed with intelligence tests that were developed using Western standards?

There are some difficulties that are experienced by individuals who are from an isiZulu language and cultural background when they are assessed using Western-developed assessment standards. These difficulties not only hinder their overall performance, but also prevent an accurate representation of their true intellectual ability. Such difficulties experienced by these individuals are related to the assessment context, length, language and recommendations made. This will be discussed below.

Turuk (2008) emphasises that intelligence is context-specific and understood differently among different groups of individuals. Vygotsky agreed to this and stated that individual experiences and interactions play a vital role in the development of intelligence (Daniel, 2008; Vygotsky, 1978). For example, individuals from the isiZulu language and cultural background have their unique way in which they understand and express intelligence. This understanding is based on exposure and it cannot be effectively assessed using the available Western intellectual assessment tools. Thus it was concluded that the difficulties that the isiZulu individuals experienced were related to their limited understanding of the concepts in the assessment and assessment tool. This misunderstanding leads to misinterpretation and inaccurate representation of intellectual ability.

There also seemed to be conflict between the language in which the client is proficient and the language in which they are assessed. Based on the discussion, the language of assessment and the individuals' language of proficiency should be the same. It was concluded that there is a lack of this. Some psychologists argue that individuals should be assessed in their home language, especially during the first few years of schooling. Thereafter, they can be assessed in the language in which they are mostly exposed to in school, which may be English. However,

other psychologists emphasised that assessment measures that are conducted in an individual's home language should not only be limited to the first few years of schooling but applied throughout their lives. In light of these arguments, it was concluded that it is a challenge for a client's intelligence to be assessed in a language in which they are not proficient.

An additional difficulty that was reported to be experienced by the isiZulu language and cultural group pertained to the length of the intellectual assessment. Intellectual assessment measures and procedures are known to taking up a lot of time (Foxcroft & Roodt, 2013; Laher, 2010; Moerdyk, 2009). In addition to the lengthy procedures, complicated instructions that are difficult to understand were also of concern.

Lastly, it was concluded that the recommendations that are made in assessment reports are more of a challenge than a guide on what should be done next. According to the HPCSA (2013), appropriate recommendations should be made and should be understandable and viable to the individual. Bell (2014), however, states that this is where most intellectual assessment procedures fall short. The findings concluded that recommendations are hardly ever appropriate for most language and cultural groups, especially for those individuals who are located in rural areas or areas with limited resources. There is limited understanding of the recommendations, which themselves are often not viable, making it difficult for the individual to access the further assistance that they may need. It was further concluded that after recommendations have been, there is limited support that is given to the client by the psychologist. This lack of support is difficult for the client because they do not know if they are making progress or taking positive steps towards addressing the recommendations.

5.3.3 Research question 3: What are the experiences of psychologists when using intelligence tests on individuals from an isiZulu linguistic and cultural background?

The overall aim of this study was to gather the experiences of psychologists in using intellectual assessment measures and procedures on individuals who are from an isiZulu language and cultural background. Most of the psychologists that were interviewed had a wide range of experiences in using intellectual assessment measures and procedures on other diverse language and cultural groups and did not only focus on the isiZulu language and cultural group. These experiences were based on limited understanding, the use of translators and finding the most suitable assessment. These experiences will be discussed below.

Most psychologists expressed a concern regarding the client's limited understanding when assessed using intellectual assessment measures. This limited understanding is a result of the content in the Western assessment measure, which is not context-specific. The SSAIS-R and Individual Scale for Zulu-Speaking Pupils (SSAIS-Z) are the assessment tools with which most of the participants had concerns. They specifically emphasised on the outdated nature of the assessment measures. As such, it was concluded that participants experience difficulty in conveying understanding. If there is limited understanding, then the client will struggle to answer effectively based on what they have understood.

Due to the limited understanding, psychologists have made use of translators. As discussed under the first research question, these translators are usually informally used. Participants expressed this as being the only way to bridge the gap of limited understanding between the psychologist and the client. These are some of the difficulties that are experienced by most participants during the informal use of translators. It was concluded that participants have no other option due to limited number of qualified translators and the high cost at which they provide translation services.

Psychologists also stated that finding the most suitable assessment is a challenge, especially considering the language and cultural diversity that dominates South Africa. Most of the assessment measures that are available are in the English language. It was expressed that asking a client to respond in a language which they are not proficient is a big ask. Therefore for the participants, the assessment measures they choose must assess intelligence instead of the clients' ability to speak English. Based on the participants' experiences, it was also concluded that intellectual assessment measures are flawed with regards to the construct they aim to measure, which makes it difficult to find the most suitable assessment. These above participant experiences significantly affect the interpretation of assessment results.

5.3.4 Research question 4: How does this experience affect the use and interpretation of the assessment findings?

Based on the above participants' experiences, the interpretation of the assessment results is directly affected. The main concern that participants had was the effective interpretation of results and conveying them so that the client can understand. However, effective interpretation is almost impossible given the irrelevance of current intellectual assessment measures and

procedures. Participants' experiences also revealed that there is limited understanding among the clients in the results and recommendations with which they are provided. Due to this, the results are inappropriately used, which puts the client at a risk of being labelled and stigmatized. Thus the individual's educational and career paths, as well as mental and emotional health, could be negatively affected.

Although findings showed that the use of translators as a bridge to providing understanding, there are some problems in using informal translators during assessment procedures. Participants are generally not aware of the errors made in translation, thus fail to take them into account during interpretation. When this is not considered in interpreting the results, the findings could have some inaccuracy and misrepresent the individual's intellectual ability. It was concluded that such experiences (i.e. the use of a translator) cannot be avoided, but this must be considered in the interpretation of the assessment results.

Finally, due to the limited availability of appropriate intellectual assessment tools and the growing South African diversity, finding the most appropriate assessment tool is difficult for psychologists – in fact, it is one of the most challenging experiences expressed by psychologists in this study. This problem results in their using the available, Western intellectual assessment measures. Alternatively, psychologists opt for using a battery of assessments with a variety of assessment measures. In so doing, the assessment is not used in isolation and interpretation is made on a broader platform. This approach was seen as an advantage, however, it should be done with caution.

5.3.5 Research question 5: What guidelines can be suggested to psychological assessment practitioners to manage the assessment process of individuals from diverse linguistic and cultural backgrounds in an accurate and unbiased manner?

Based on the difficulties experienced by clients and the participants, there have been some guidelines derived from the findings of this study. Due to the limited availability of culturally appropriate intellectual assessment measures, some participants have deviated from standard procedures to help maintain a fair assessment procedure. Others have made the use of informal, non-verbal and dynamic assessment approaches. This will be discussed below.

The information provided is not necessarily a guideline, but refers to the way in which most participants in this study dealt with the difficulties they experienced during assessment procedures. Most participants deviated from the standard assessment instructions and procedures. This was done when it was evident that the client did not understand what was being asked. This deviation included simplifying the questions or discontinuing the assessment and replacing it with a more appropriate one. According to Foxcroft (2011), these actions are unethical, and the participants seemed to be aware of this perception. However, such deviations are the result of the limited availability of appropriate intellectual assessment measures. To avoid these dilemmas, it was concluded that new, more relevant intellectual assessment measures need to be developed.

Alternatively, most of the deviations that were mentioned by participants referred to making use of visual aids through dynamic assessment approaches. This approach seemed to be the more ethical option. According to Murphy and Maree (2006), the use of dynamic assessment is incorporating the standardised intellectual assessment procedures with other assessment procedures to determine the potential of an individual. These additional procedures include the use of visual aids and other measures (Zuma, 2014). The findings concluded that this has positive rather than negative effects, as their use is the only way in which an assessor can act in the best interest of the client with the available intellectual assessment tools.

5.4 Implications for Theory and Practice

The sociocultural theory that was used in the current study accounted for how intelligence is mediated and intelligence being context-specific. It described intelligence being context-specific. It also described intelligence being developed and understood through individual experiences and interactions (Vygotsky, 1978). Even though it gave this context-specific account, it did not consider the South African cultural conceptualization of intelligence. Thus there is need in the field of psychology to revise and develop theories of intelligence that will be relevant to the multicultural diversity of South Africa.

One of the findings of the current study point to the need to develop assessment tools that are relevant for each isiZulu tribe. In addition, there is a need to develop theories that will fully accommodate the tribal differences in understanding and measuring intelligence. Theories of intelligence in the current available intellectual assessment procedures are focused on fixed academic abilities, whilst the isiZulu cultural understandings of intelligence go beyond

academic abilities (Nomlomo & Sosibo, 2016). Thus cultural intelligence helps in understanding intelligence in a broad manner as opposed to the narrow perspective that is found in the available Western intellectual assessment tools.

Psychologists go through a long training process to become fully qualified. However, based on the findings of the study, this training does not appear to be sufficient. Psychologist should not only be trained in appropriately administering and interpreting intellectual assessment measures, but should also practice on colleagues and consult with supervisors. Doing so would assist in improving their assessment skills, and they would remain competent through frequent consultations.

Another relevant finding is that there is lack in contextually relevant training – that is, there is a lack of training for the appropriate administration of intellectual assessment tools on the South African diversity, specifically the isiZulu language and cultural group. This lack of training remains a barrier between the psychologist and the client, which may sometimes lead to the use of a third party such as a translator.

The HPCSA (2014) emphasises that psychologists need to act at the best interest of the client. The council considers it as unethical to provide psychological assessment services to diverse cultural groups whilst having limited competence and experience. It is crucial that psychologists be competent in administering intellectual assessment tools to diverse South African cultural groups. Based on the findings, this competency is not only achieved through training but it is achieved through exposure and experience.

Due to the limits in the availability of appropriate assessment measures and limited professional competency, psychologists tend to deviate from the standard assessment procedures. As a result, they find themselves in an ethical dilemma. Although psychologists are aware of this issue, they believe that they are doing more harm to the client if they do not deviate from the standard instructions. Thus if new, context-specific assessment measures are not developed, then the use of informal and dynamic assessments should be allowed.

5.5 Limitations of the Study

Six participants who were part of this study were sampled from Pietermaritzburg, which is a province of KwaZulu-Natal. Initially, there were meant to be ten participants, but the researcher

was not able to obtain the full sample size. Furthermore, the psychologists were initially meant to be gathered from the clinical, educational and counselling categories of registration. However, participants were only sampled from educational and counselling categories and did not include clinical category. This was because of the participants' busy schedule and appointments clashing with academic responsibilities. Furthermore, the data was not only collected from qualified psychologists but also from registered intern psychologists. The intern psychologists may not have had the same level of experience that most qualified psychologists have. Therefore, the results of this study may have lacked exhaustive data from experienced psychologists.

Additionally, the participants had limited experience in assessing individuals who are from an isiZulu linguistic and cultural background. The results were therefore based on general experiences of intellectual assessment in the South African context, which includes all indigenous languages and cultures. The lack of participants who have frequently assessed individuals from an isiZulu indigenous linguistic and cultural background using intelligence tests was therefore an additional limitation to the study.

5.6 Summary of Recommendations

Based on the findings of this study, it is recommended that intellectual assessment measures be administered and interpreted with caution. Given South Africa's diversity, it is important for psychologists to gain contextual knowledge along with appropriate training to effectively administer and interpret intellectual assessment measures in this manner.

It would also be beneficial to develop intellectual assessment measures that are appropriate for the local South African context. This is due to the unfair nature of the currently available assessment tools for testees' from the isiZulu linguistic and cultural background. Even though there are a few South African intelligence tests that have been developed to cater for Zulu-speaking children, most individuals in this population group are unable to relate to the content. Therefore tribal-specific isiZulu assessment tools need to be developed. The majority of the people in Pietermaritzburg are predominantly isiZulu speaking and it is recommended that intellectual assessment tools be developed or adapted based on tribal differences. Thus a context-specific update is needed.

Given the current knowledge of the informal use of unqualified, incompetent translators, there is a need for psychologist to take necessary measures. That is, they need to bridge the language gap that may exist between themselves and their clients through receiving appropriate training, or acting in an ethical manner through the appropriate use of qualified and competent translators. Contextually relevant training is recommended in the training of psychologists to increase the professionals' contextual psychological knowledge. Doing so would potentially address the problem regarding delivering culturally appropriate assessment services.

Furthermore, resource centres lack the necessary assessment resources. Psychologists are therefore encouraged to donate assessment materials to these resource centres to assist in providing a more pleasant, useful and productive assessment experience.

Psychologists are to act at the best interest of the client. It is therefore recommended that appropriate, viable recommendations are given to clients. This is specifically important in South Africa due to the limited psychological resources that are available at no cost. Furthermore, sufficient support should be given to clients after recommendations. Even though this may not be entirely possible, support can be given in providing effective and viable recommendations.

Due to the awareness of intellectual assessment measures being unfair to individuals from linguistically and culturally diverse backgrounds, there is also a need for appropriate steps to be taken. Evidently, the use of intellectual assessment cannot be stopped, however, the necessary precautions can and should be taken. This includes using an intellectual assessment with other emotional and scholastic assessment. In other words, the psychologist should use a full assessment battery to obtain a holistic view of the client. Furthermore, the use of the dynamic assessment approach is an effective way to incorporate non-verbal means of assessment.

Finally, the study was limited in scope and the nature of the sample made it challenging to establish transferability to all psychologists in Pietermaritzburg. Thus further research is recommended in this area with a wider and more experienced sample.

5.7 Conclusion

Psychologists expressed much dissatisfaction on the currently available intellectual assessment tools and their effectiveness on the various South African linguistic and cultural groups. This hinders assessment procedures, the results and the interpretation. As a result, psychologists should improvise through deviating from standard procedures and make use of alternative, non-verbal and dynamic assessment measures. To do so is to act in the clients' best interest.

Psychologists also seemed to be concerned about the growing linguistic, cultural, educational and socioeconomic diversity in South Africa. Such diversity has increased the need to develop context-specific assessment tools that will effectively measure tribal intelligence. The adaptation of available tests and the development of local tests are a need for most psychologists. The test adaptation and development is a complicated and expensive process, however, the assessment of diverse individuals – including the isiZulu linguistic and cultural group – with the available intellectual assessment tools can be damaging and difficult to reverse in the long run, thus needs to be attended to urgently.

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Appendices

Appendix 1: Screening Questionnaire



I am a Master's student at the University of KwaZulu-Natal currently doing research on the influence of language and culture on IQ assessments: Psychological perspective. My overall aim is to get the experiences of psychologists in using IQ assessment tools on individuals who are from a different language and cultural backgrounds, specifically IsiZulu language and cultural background.

Please may you complete the questionnaire below and return to me at your earliest convenience?

Please note: confidentiality and anonymity will be maintained

Questions:

1. What area of psychological focus do you work in?

Educational/clinical/counselling

2. How many years have you been practicing?

0-1 year

2-3 years

4 years or more

3. Have you conducted an Intellectual/ Cognitive ability assessment?

Yes/No

4. If yes, approximately how many to date?

5. Have you conducted an Intellectual/ Cognitive ability assessment on individuals who are from an IsiZulu linguistic and cultural background?

Yes/No

6. If No, what language did they speak?

Thank you for completing this questionnaire.

I will certainly keep in contact with you.

Appendix 2: Interview schedule



1. What is your general view of your current assessment experience within South Africa's diversity?
2. Illustrate a general view of any current intellectual assessment experience within South Africa?
3. How do you view intellectual assessments and their application within this country?
4. How many intellectual assessments have you conducted?
5. Which intellectual assessment tools have you administered?
6. What are some of the barriers that you have experienced within each intellectual assessment tool that do not cater for cultural diversity?
7. What has been your experience with the use of intellectual assessments on individuals from an IsiZulu language and culture background?
8. What has been your experience in dealing with limitations within intellectual assessments when assessing individuals from an IsiZulu indigenous culture and linguistic background?
9. How does this experience effect the use and interpretation of assessment results?
10. What example do you have of an assessment you have conducted with an individual who is from an IsiZulu linguistic and cultural background?
11. What has been a major obstacle which you have had to overcome on your most recent intellectual assessment with an individual who is from an IsiZulu cultural and linguistic background? How did you deal with it?
12. What concerns you the most about the use of the intellectual assessments within the country on diverse individuals?
13. Given the standard assessment procedures, what actions do you take if you perceive that the assessment procedure is bias?
14. Are there additional guidelines that you can suggest, which can be used by assessment practitioners to manage the overall assessment process?

15. If you could have a perfect assessment experience within South Africa, what would it be like?

If you could be a “test-developer-for-the-day” what changes would you make within an intellectual assessment tool to make it appropriate within South Africa?

Appendix 3: Consent Form



UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE
(HSSREC)

APPLICATION FOR ETHICS APPROVAL

For research with human participants

INFORMED CONSENT

Information Sheet and Consent to Participate in Research

Date:

Greeting: Dear Sir/Madam

My name is Mbalenhle Gumbi from the University of KwaZulu-Natal and I am currently completing my Masters degree in Social Science (Educational Psychology).

You are being invited to consider participating in a study that involves research on Western intellectual assessments and their application within the South African context. The aim and purpose of this research is to investigate psychologists' experiences when assessing IsiZulu first language speaking individuals with Western developed and adapted intellectual assessment tools. The study is expected to enrol ten participants who are psychologists within the Pietermaritzburg area. It will involve the following procedures: completing a screening questionnaire online and finally a semi-structured interview. The interview will be recorded on a recording device for transcription purposes. The duration of your participation if you choose to enrol and remain in the study is expected to be only for the interview period (not more than one hour). The study is personally funded.

The study does not involve any risks or discomforts as personal questions are not asked. The study will not have a direct benefit on the participant, rather their participation will add to the existing body of knowledge and increase the awareness of cultural and linguistic misuse of

intellectual assessments. Further adaptation of existing assessment tools may be a possibility after a study of this nature has been conducted. There are no alternative procedures that may serve as possible alternate options to study participation.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number HSS/0576/016M).

In the event of any problems or concerns/questions you may contact the researcher at 216071881@stu.ukzn.ac.za or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Participation in this research is voluntary and that participants may withdraw participation at any point. In the event of refusal/withdrawal of participation, participants will not incur penalty or loss of treatment or other benefit to which they are normally entitled. There are no consequences if a participant would like to withdraw. Participant termination will not occur.

There are no costs incurred by participants as a result of participation in the study.

Confidentiality of personal information will be strictly adhered to and there are no limits of confidentiality. The recorded and transcribed data will be kept with my supervisor (Ms Phindile Mayaba) for a five year time period until it is appropriately disposed.

CONSENT

I _____ have been informed about the study titled: The Influence of the isiZulu Indigenous Language and Culture in Intellectual assessments: The Psychologists Perspective' by Mbalenhle Gumbi.

I understand the purpose and procedures of the study.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study, I understand that I may contact the researcher at 216071881@stu.ukzn.ac.za.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers, then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview YES / NO

Signature of Participant

Date

Signature of Witness
(Where applicable)

Date

Signature of Translator
(Where applicable)

Date

Appendix 4: Letter of Ethical Clearance



14 June 2016

Ms Mbalenhle Gumbi 216071881
School of Applied Human Sciences
Pietermaritzburg Campus

Dear Ms Gumbi

Protocol reference number: HSS/0576/016M

Project title: The influence of the isiZulu indigenous language and culture on intellectual assessment: The Psychologists' perspectives.

Expedited Approval

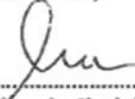
In response to your application dated 18 May 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



.....
Dr Shenuka Singh (Chair)

/px

cc Supervisor: Ms Phindile Mayaba
cc Academic Leader Research: Professor K Durrheim
cc School Administrator: Ms Nondumiso Khanyile

Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)






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