

THE CULTURAL AND LINGUISTIC APPROPRIATENESS OF THE INDIVIDUAL SCALE  
FOR ZULU-SPEAKING PUPILS: A BAKHTINIAN ANALYSIS

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of  
Philosophy in the School of Applied Human Sciences, Discipline of Psychology,  
College of Humanities, University of KwaZulu-Natal.

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## DECLARATION

Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy  
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Phindile Lungile Mayaba

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Supervisor: Professor Nhlanhla J. Mkhize

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## **DEDICATION**

To my children, Kwenzi and Kuhle.

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## **ABSTRACT**

The context of psychological practices in South Africa is changing, particularly the assessment practices. A change in ways of understanding intellectual functioning has transpired within culturally and linguistically diverse contexts, initiating an evaluation of intelligence measures. South African policies and laws relevant to the practice of psychologists have been passed with an aim to ensure equitable and fair assessment practices for all children. Evaluating psychological tests is of significant importance as psychologists are ethically bound to periodically examine the contextual relevance of the assessment tools they use. This study was undertaken to qualitatively evaluate the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP). The study adopted a triangulated descriptive-interpretive qualitative research design within a social constructionist paradigm. Bakhtinian dialogism was employed as a theoretical and methodological framework for this study, focusing on the relational and dialogic nature of human existence. Twenty-two isiZulu-speaking participants were recruited within the province of KwaZulu-Natal. Ten participants were practicing psychologists who have used the ISZSP in their practice; and 12 participants were isiZulu-speaking learners within the age range of 9 years to 19 years, 11 months. The data were collected in the form of expert review reports written by psychologists and in the form of audio-visual recordings of learners being assessed using the ISZSP. Contextualized content analysis and conversation analysis were employed to analyse data, applying the principles of Bakhtinian dialogism.

The findings reveal that psychological assessment is dialogic in nature, however, the conventional static approach to assessment prevents the process to take this form. The study argues the ISZSP needs to be revised in a manner that permits the social negotiation and co-construction of knowledge during the assessment process, as human existence and all human functioning is dialogical. The findings indicate that the ISZSP presents with numerous challenges because it does not accommodate social and regional variations of isiZulu. These challenges seem to stem mainly from the archaic nature of the language of the ISZSP. To remedy this, psychologists have resorted to dynamic assessment and bilingual administration of the ISZSP. The psychologists seem to shy away from their ethical obligation to evaluate the ISZSP and to document mechanisms that have been instrumental in addressing these challenges. These findings have implications for theory, policy and practice that call for a large-scale revision of the ISZSP, constructing it as a tool that would be culturally and linguistically appropriate for the population it was intended for.

# CHAPTER 1

## INTRODUCTION

*There can neither be a first nor a last meaning; it always exists among other meanings as a link in the chain of meaning, which in its totality is the only thing that can be real. In historical life, this chain continues infinitely (Bakhtin, 1986, p. 146).*

### 1.1 Exordial Statement

The assessment of intellectual functioning is one of the most important practices for determining learners' cognitive strengths and needs. The outcome of such an assessment is crucial for the provision of relevant curricula and appropriate instructional methods to suit the needs and abilities of learners, as well as for placing learners in appropriate schooling systems. All this should be in the learners' best interest, and contribute to long-term positive outcomes for them. Historically, psychologists have experienced difficulties in accurately assessing culturally and linguistically diverse (CLD) learners<sup>1,2</sup> when using the available tools. Given the gravity of the research problem and its implications for practice, the current study was conducted to qualitatively explore the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP).

This chapter introduces the current study. The research problem relating to the assessment of intellectual functioning in CLD learners is discussed. The chapter focuses on the history and use of the ISZSP with reference to legal and ethical obligations to ensure ethical psychological assessment. The chapter explains the purpose of the study and outlines the research questions. The methodological approach that was undertaken to answer the research questions is introduced. What follows in the next section is the beginning of the chapter, which presents the research problem and its background and context.

### 1.2 Background to the Research Problem

The context of psychological practices in South Africa is changing, particularly assessment practices (Mokoena, 2013; Radebe, 2010; Smit, 2010). A change in ways of understanding intellectual functioning has transpired within culturally and linguistically diverse contexts, initiating an examination of intelligence measures (Seabi, 2007). Consequently, this has generated much deliberation regarding the validity and the expediency of traditional

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<sup>1</sup> The term "learners" will be used interchangeably with "children" throughout the study.

<sup>2</sup> The term "CLD learners" will be used in reference to culturally and linguistically diverse children, with more focus on isiZulu-mother-tongue learners/isiZulu-speaking learners.

psychological assessment methods and tools for assessing CLD learners (Radebe, 2010; Seabi, 2007; Schon, Shaftel, & Markham, 2008; Smit, 2010).

Previous studies have criticized the practice of conventional methods of intellectual assessment (Adelman & Taylor, 1979; Foxcroft, Paterson, Le Roux & Herbst, 2004; Feuerstein, Rand & Hoffmann, 1979). The primary criticism has been that CLD learners are not able to perform adequately in comparison to learners from privileged backgrounds because of reduced opportunities for learning experiences, and underprivileged social conditions on the part of the former (Foxcroft et al., 2004). Several studies have also confirmed that CLD learners perform deficiently on traditional assessments of intelligence in contrast to learners assessed in their primary language (Rushton & Jensen 2005; Skuy, Taylor, O'Carroll, Fridjhon, & Rosenthal, 2000; Smit, 2010). It has been established that the main sources of population differences in learners' performance on such assessments are language, contextual background, cultural understanding, and levels of exposure to assessment, as well as the familiarity with test materials (Pretorius et al., 2009; Skuy et al., 2000; Thomas-Presswood, Sasso, & Gin, 1997). Thus, it has become imperative to explore the contextual, cultural and linguistic factors that may impinge on CLD learners' performance on intellectual assessments.

### **1.3 Statement of the Problem**

A marginal number of assessment tools for intellectual functioning have been adapted for South African use. Literature indicates that South African psychologists still face the challenge of the paucity of linguistically and culturally appropriate intellectual assessment tools across all populations in the country (Ferrett, 2011; Foxcroft et al., 2004; Parker, Philip, Sarai & Rauf, 2007; Radebe 2010; Smit, 2010). The interpretation of intellectual assessment results is highly dependent on the appropriateness of the test for the individual being assessed, and on an understanding of the individual's intellectual functioning in relation to an analogous population (Ferret, 2011; Pretorius et al., 2009; Visser & Viviers, 2010). The efficacy of the intellectual assessment and the authenticity of the interpretation of the results are seriously compromised in the absence of relevant assessment measures and related normative data that are appropriate for the linguistic, cultural, and sociodemographic profile of the individual being tested (Ferrett, 2011).

Assessing the intellectual functioning of isiZulu-speaking children is valuable. The ISZSP is an isiZulu-translated tool that is currently in use for assessing children aged 9 to 19 years. However, the isiZulu language of the ISZSP is antiquated, and does not include currently

spoken words. This has implications in terms of how the assessed children understand this language and how they perform. This in turn impacts on the results of the assessment, which might have lifelong negative implications. With the dearth of intellectual assessment tools published in isiZulu, it is essential for the existing isiZulu tools to be free from cultural and linguistic bias. There is currently a gap in the literature in this regard as no studies to date have evaluated the language of the ISZSP for contextual relevance. It is this problem that the current study addresses, i.e., the need for the evaluation of the language of the ISZSP and documenting the mechanisms through which the assessment process is socially constructed during the administration of the ISZSP.

#### **1.4 The Context of the Problem**

This section gives an account of the development of the ISZSP and the context in which it was developed. This is followed by the legal and ethical context of psychological assessment in South Africa. It is important for psychologists who use the ISZSP to know and understand this background and its implications for psychological practice.

##### **1.4.1 The historical background of the Individual Scales for Zulu-Speaking Pupils**

The first use of intelligence tests in South Africa can be traced back to the 1910s when Dr L. Leipoldt and Dr A.M. Moll, in the then Transvaal<sup>3</sup> province, adapted tests that were developed in Western countries (American and European). These tests were the Knox Cube test, the Healy A test, the Goodard Form Board and the Binet-Simon Scales intelligence test (Fleisch, 1993). At the time, these adapted tests were used to assess White learners only. It was believed that these tests provided an objective basis for selecting what was referred to as *mentally-deficient* learners for placement in a special school in Troyville, Johannesburg (Fleisch, 1993). In the late 1910s Professor Eybers of the University College of the Orange Free State, who was the first American-trained psychometrician, standardized the Terman Revision of the Binet Intelligence Scale for use with White learners in South Africa (Fleisch, 1993).

In the 1920s, the obligation for the development of intelligence tests was officially placed with the National Department of Education (DoE), which was followed by the founding of the National Bureau of Educational and Social Research in 1929 (Fleisch, 1993; JvR Africa Group, 2015). During this time, in 1926, Dr M.L. Fick, a Harvard-trained psychometrician at

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<sup>3</sup> Transvaal was one of the provinces in South Africa from 1910 to 1994. After South Africa's first democratic elections in 1994, the former provinces and homelands were restructured, and a cohesive Transvaal ceased to exist. Parts of the old Transvaal now belong to the new Gauteng, North West, Limpopo and Mpumalanga provinces.

the Union Department of Mental Hygiene, published the first Official Mental Hygiene Individual Scale of Intelligence (OMHISI) (Fleisch, 1993; Louw & Danziger, 2007). Fick (1939) developed the OMHISI by adapting the Terman Revision of the Binet Intelligence Scale and the non-verbal tests such as the Worster Form Board and the Porteous Maze Test. In 1938, Fick (1939) revised the OMHISI and published it in 1939 with the National Bureau of Educational and Social Research as the Individual Scale of General Intelligence for South Africa (ISGISA). The ISGISA was standardized with the norm sample of 2,000 White children in the Johannesburg area, with an age range from 5 years, 0 months to 17 years, 11 months (Fick, 1939).

During the period 1939-1945, South Africa witnessed the development of numerous aptitude measures for educational and occupational placement purposes (JvR Africa Group, 2015). The population that was sampled as part of the norm for the tests was White. This focus on White children signified the unjust exclusion of Blacks, even those who were in need of psychological assessment and appropriate placement in schools/vocations. It also indicated how tests for intellectual functioning were used to marginalize non-White racial groups during the apartheid era in South Africa (Pretorius et al., 2009). The Aptitude Test Section (ATS) of the South African Air Force (SAAF) and the Personnel Research Section (PRS) of the Leather Industries Research Institute (LIRI) at Rhodes University were established as national psychometric institutions in 1941 (JvR Africa Group, 2015). In 1945 the Council for Scientific and Industrial Research (CSIR) was established and acted as an umbrella organisation for many South African social research institutes. The National Bureau for Personnel Research (NBPR) was established within the CSIR in 1946 to develop research in industrial psychology and personnel selection (Louw & Danziger, 2007). Later in 1948, the NBPR became the National Institute of Personnel Research (NIPR) (Fleisch, 1993; Louw & Danziger, 2007; JvR Africa Group, 2015).

In 1955, the National Council for Social Research approved a request by the National Bureau of Educational and Social Research to reconstruct and restandardize the ISGISA because its norms had become outdated (Madge, 1970). The ISGISA was revised in 1955 by the NIPR with White Afrikaans-speaking and English-speaking norms. The ISGISA was published as the New South African Individual Scale (NSAIS) (Fleisch, 1993; Madge, 1970). The design of the NSAIS followed the pattern of the construction of the Wechsler Individual Scale for Children (WISC) (Dubb, 1971). The NSAIS comprised five verbal subtests (Vocabulary, Comprehension, Verbal Reasoning, Problems, and Memory) and four non-



verbal subtests (Pattern Completion, Blocks, Absurdities, and Form Board) (Dubb, 1971, Madge, 1970).

In 1957 an *ad hoc* committee decided that the NSAIS should be revised to: a) establish clear norms of English-speaking and Afrikaans-speaking children; b) ensure that the full-scale intelligence quotient maintained both verbal and non-verbal subtests; c) restructure from being an age scale to a point scale; d) ensure that the testing time for the full scale does not exceed one hour; e) ensure that the contents of the full scale are intrinsically interesting to the child; and f) ensure that minimal apparatus should be used, and it should be replaceable (Madge, 1970). Following this, in 1964, the NSAIS was reconstructed to incorporate all these recommendations and it was renamed as the Senior South African Individual Scale (SSAIS) (Madge, 1970; Landman, 1994). The SSAIS was normed with White English- and Afrikaans- speaking children, aged 5 years, 0 months to 17 years, 11 months.

In 1968, the National Bureau for Educational and Social Research was incorporated into the new statutory Human Sciences Research Council (HSRC) under the Human Sciences Research Act, No. 23 of 1968 (RSA, 1968). The HSRC began operating in 1969, and later, in 1973, the NIPR was incorporated into the HSRC, which officiated the HSRC the sole provider and distributor of psychological tests in South Africa (JvR Africa Group, 2015).

The socio-political climate changed in the early 1980s, and began with the outcry regarding discriminatory apartheid laws. The outcry forced the HSRC to attend to complaints regarding racially biased assessment tools and testing practices (Abrahams, 2001; Nijenhuis, Murphy & van Eeden, 2011; van Eeden, 1991). The HSRC was criticized for publishing tests that raised issues of bias, equivalence and fairness (Abrahams, 2001; Owen, 1989; Taylor, 1987; Taylor & Radford, 1986; Verster, 1987). Consequently, the HSRC commissioned the revision and renorming of the SSAIS in 1987. However, this test was standardized for English-speaking and Afrikaans-speaking Coloured, Indian and White learners; Black African learners were excluded (Abrahams, 2001; Landman, 1994; Nijenhuis, Murphy & van Eeden, 2011; van Eeden, 1991).

The late 1980s and early 1990s were marked by much political tension in South Africa. Psychological assessment was perceived to have played a conspicuous role in legitimizing apartheid, thus the HSRC and traditional assessment practices received vehement opposition (Laher & Cockcroft, 2014; Nzimande, 1995). During this period, the Individual Scale for Indian South Africans (ISISA) was developed – adapted from the NSAIS

(Landman, 1994). The HSRC authorized the translation of the NSAIS from English to isiXhosa in 1988; the isiXhosa version was later translated to isiZulu in the same year, then to Northern Sotho, Southern Sotho and Tswana in 1990. The norms were from the age of 9 years, 0 months to 19 years, 11 months (Landman, 1988a, 1988b; Owen & Taljaard, 1996). This was done in response to the discontent about the exclusion of Black African learners from test development and adaptation processes (Laher & Cockcroft, 2014). The ISZSP is one of the translated versions of the NSAIS. The SSAIS of 1987 was later revised in 1991, and this version – the Senior South African Individual Scale-Revised (SSAIS-R) – is the current English version normed for children aged 7 years, 0 months to 16 years, 11 months (Landman, 1994; van Eeden, 1993; van Eeden & van Tonder, 1995; van Eeden & Visser, 1992). The SSAIS-R and the translated versions of the NSAIS were published by the HSRC, and are currently distributed by Mindmuzik Media, which was established in 2000.

To date, the translated versions of the NSAIS have not been updated since the publication of the SSAIS-R in 1991. This is problematic because it means that the issues of bias, equivalence and fairness that were addressed by the revision of the SSAIS-R still remain in these translations, including the ISZSP. This should not be the case. The international guidelines for the translation of tests require the translated versions of tests to be free of any bias against the populations for whom the translated versions of tests are intended (ITC, 2010, 2013). It is therefore the ethical responsibility of test developers/publishers and psychologists to evaluate translated tests periodically, every decade, to ensure fairness and ethical practice (American Psychological Association [APA], 2010; Health Professions Council of South Africa [HPCSA], 2006; International Test Commission [ITC], 2013).

To the time of completion of the current study, I could not find the Part I manuals with details on the background and standardization of both the NSAIS and the ISZSP, I could only find Part II and Part III. The Part I manuals would have provided full details of the background and standardization of these tests. This would include details regarding the development of the tests, validation studies, and demographics of the norm samples. This is vital information for practicing psychologists, as it plays an important role in appropriate test selection (APA, 2010; HPCSA, 2006; ITC, 2010, 2013; Radebe, 2010).

When searching for empirical literature and documentation for the current study, I searched in scholarly databases and psychological test libraries, and sought the test publishers' assistance in accessing the Part I manual of the ISZSP. After all these attempts, I could not ascertain where the Part I manual could be located. Furthermore, the absence

of this information is perilous for scientific and ethical purposes. According to South African legislation such as the Health Professions Act (No. 56 of 1974) (RSA, 1974) and the ethical guidelines published by the Health Professions Council of South Africa [HPCSA] (2006), in the absence of information regarding the standardization and normative group for the target population of the test, the test is scientifically invalid, and it is unethical for such a test to be used. Moreover, the international standards for psychological testing emphasize this and mandate that this information should be made available by test developers/publishers (ITC, 2010, 2013). Therefore, the continued use of the ISZSP in its current form and in the absence of Part I manual is unethical.

#### **1.4.2 The legal and ethical context of psychological assessment in South Africa**

South Africa's sensitive socio-political past resulted in general scepticism towards psychological testing amongst the Black African population. They voiced concerns that it was unfair practice for psychological tests that were standardized on educated White South Africans to be administered to illiterate, uneducated or poorly educated Black South Africans, and to use the results as justification for job reservation and preference (Laher & Cockcroft, 2014; Nzimande, 1995; Sehlapelo & Terre Blanche, 1996). They argued that this manner of testing was profoundly shaped by apartheid, and was used as a means of extenuating the exploitation of Black labour and preventing Black people's access to education and economic resources (Nzimande, 1995; Sehlapelo & Terre Blanche, 1996). Nzimande (1995) further argued that psychological assessment must be positioned within the broader sociocultural and economic objectives of the society within which it is located.

Subsequently, the linguistic and cultural appropriateness of psychological tests became legally enforceable issues in South Africa with the promulgation of the South African Constitution (Act 108 of 1996) (RSA, 1996) and the Employment Equity Act (No. 55 of 1998), explicitly Section 8 (RSA, 1998). After these Acts were promulgated, cultural fairness and test bias became points of continuous concern (van de Vijver & Rothmann, 2004; Visser & Viviers, 2010). The South African policies and laws relevant to the practice of psychologists have been passed to ensure equitable practices that will enhance the development of all children and learners, who will grow up to be functional future citizens (Radebe, 2010).

One of the foci of the South African Constitution is the right to equality (RSA, 1996). Section 9 (1-5) of the Constitution states that every citizen should enjoy equality before the law; no individual or group should be unfairly discriminated against, directly or indirectly on the

basis of race, gender, colour, sex, pregnancy, marital status, ethnic or social origin, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth (RSA, 1996). The South African Constitution [Chapter 1, Section 6(1)] strives to promote national unity within the country's linguistic and cultural diversity (Department of Arts and Culture [DAC], 2003) and further states that marginalised languages must enjoy parity of esteem and must be treated equitably (RSA, 1996). IsiZulu is one of the official indigenous languages named in the South African Constitution whose use and status have been historically diminished (RSA, 1996).

Section 8 of the Employment Equity Act stipulates that psychological testing and other similar assessments are prohibited unless the test or assessment being used – (a) has been scientifically shown to be valid and reliable, (b) can be applied fairly to everyone; and (c) is not biased against any individual or group (RSA, 1998). This Act requires psychologists to proactively acquire evidence that tests and assessment tools they use are fair and unbiased; in turn, this “may enhance the professional level of psychological practice by putting multicultural assessment on the agenda of the profession and by stimulating the development of new tests and even new testing practices” (van de Vijver & Rothmann, 2004, p.4).

This corroborates the international ethical codes for test use, which require psychologists to evaluate the translated assessment measures of cognitive abilities for currency and contextual relevance every 10 years (APA, 2010; Bartram, 2001; Hambleton, 1994, 2001; ITC, 2001, 2010, 2013; Oakland, 2005). The *International Guidelines for Translating and Adapting Tests* (ITC, 2010) as well as the *International Guidelines for Test Use* (ITC, 2013) require psychologists not to base their assessments, intervention decisions and recommendations on tests and measures that are obsolete and not beneficial for the current purpose. Some of the guidelines for translating and adapting tests stipulate the following:

- Test developers/publishers should ensure that the adaptation process takes full account of linguistic and cultural differences among the populations for whom adapted versions of the test or instrument are intended.
- Test developers/publishers should provide evidence that the language use in the directions, rubrics, and items themselves as well as in the handbook (manual) are appropriate for all cultural and language populations for whom the test or instrument is intended.

- Test developers/publishers should provide evidence that item content and stimulus materials are familiar to all intended populations.
- Test developers/publishers should provide information on the evaluation of validity in all target populations for whom the adapted versions are intended.
- Test developers/publishers should provide statistical evidence of the equivalence of questions for all intended populations.
- Test developers/publishers should provide evidence that item content and stimulus materials are familiar to all intended populations.
- Test administrators should be sensitive to a number of factors related to the stimulus materials, administration procedures, and response modes that can moderate the validity of the inferences drawn from the scores.
- Test administration instructions should be in the source and target languages to minimize the influence of unwanted sources of variation across populations.
- The test manual should specify all aspects of the administration that require scrutiny in a new cultural context.
- When a test or instrument is adapted for use in another population, documentation of the changes should be provided, along with evidence of the equivalence.
- The test developer should provide specific information on the ways in which the sociocultural and ecological contexts of the populations might affect performance, and should suggest procedures to account for these effects in the interpretation of results (ITC, 2010, pp. 7-8).

The test developers/publishers are also required to determine that the test's technical and user documentation provides sufficient information to enable evaluation of the following:

- scope or coverage and representativeness of test content, appropriateness of norm groups, difficulty level of content etc.;
- accuracy of measurement and reliability demonstrated with respect to relevant populations;
- validity (demonstrated with respect to relevant populations) and relevance for the required use;
- freedom from systematic bias in relation to the intended test taker groups;
- acceptability to those who will be involved in their use, including perceived fairness and relevance; and
- practicality, including time required, costs, and resource needs (ITC, 2013, p.16).

In relation to reviewing the appropriateness of a test and its use, the guidelines for test use stipulate the following:

Competent test users will:

- Monitor and periodically review changes over time in the populations of individuals being tested and any criterion measures being used.
- Monitor tests for evidence of adverse impact.
- Be aware of the need to re-evaluate the use of a test if changes are made to its form, content, or mode of administration.
- Be aware of the need to re-evaluate the evidence of validity if the purpose for which a test is being used is changed.
- Where possible, seek to validate tests for the use to which they are being put, or participate in formal validation studies.
- Where possible, assist in updating information regarding the norms, reliability and validity of the test by providing relevant test data to the test developers, publishers or researchers (ITC, 2013, pp. 22-23).

Furthermore, the guidelines for test use maintain that measures of cognitive abilities should be evaluated and renormed every decade to ensure their currency, as significant differences have been found to occur in cognitive abilities during this period of time (Flynn, 2013; ITC, 2013; Oakland, 2005; Williams, 2013). To date, no studies have evaluated the cultural and linguistic appropriateness of the ISZSP since its publication 26 years ago. The onus is on test developers as well as members of the scientific and professional communities that use psychological assessment tools to demonstrate that they are appropriate and scientifically valid measures of the constructs in question for the population concerned (APA, 2010; Bedell, van Eeden, & van Staden, 1999; ITC, 2001, 2010, 2013). Not only is the use of an obsolete assessment tool that does not measure what it proposes to measure unscientific, it is also unethical (Wallis, 2004).

The HPCSA (2006) has published ethical rules of conduct for practitioners registered under the Health Professions Act (RSA, 1974). Section 2(1) of this Act states that "a psychologist shall develop, maintain and encourage high standards of professional competence to ensure that clients are protected from professional practices that fall short of international and national best practice standards" (HPCSA, 2006, p.16). These guidelines require that psychologists must have appropriate contextual knowledge and skills necessary to conduct assessments in a professional and ethical manner. Psychologists should have the

knowledge of how social, cultural, linguistic and educational factors can impact on the performance of the learners being assessed, and take these into account when interpreting assessment results (HPCSA, 2006). This will ensure that all learners whose intellectual functioning is assessed are treated in a fair and just manner.

Based on the legal and ethical context given above, it is essential that psychologists become aware that they are bound to promote the principle of multilingualism, and to respect linguistic and cultural diversity. This requires using valid, fair and appropriate assessment tools when assessing CLD learners. This also requires that when translated assessment tools are used to assess CLD learners, caution should be taken to ensure that the tool is linguistically appropriate for the intended population. This will ensure that psychological assessment using translated tools is not biased, and that construct validity is not threatened (Venter, 2000). Ensuring the linguistic accuracy and appropriateness of the ISZSP would aid psychologists in assessing the cognitive ability of isiZulu mother tongue learners in a manner that would lead to accurate diagnoses as well as appropriate and relevant interventions (Parker et al., 2007; Radebe, 2010).

It is for these reasons that the current study evaluated the cultural and linguistic appropriateness of the ISZSP. This was done through exploring isiZulu-speaking African psychologists' experiences and views on the cultural and linguistic appropriateness of the ISZSP, and its currency and contextual relevance (HPCSA, 2006; ITC, 2010, 2013; Oakland, 2005). As mentioned above, the ISZSP has not been evaluated for nearly three decades; this makes the tool obsolete. Furthermore, this study was driven by the need to uncover the experiences, challenges and adjustments made by psychologists in the administration of the ISZSP as well as the processes they have put in place to mediate the linguistic divide between the language of the tool and the language of the testees. As required by the codes of ethics that govern the practice of psychologists, the current study aimed to aid in ensuring that the ISZSP is a contextually relevant and culturally valid measure of cognitive abilities (APA, 2010; HPCSA, 2006; ITC, 2001, 2010, 2013). This will also ensure the fair and ethical assessment of CLD learners when using the ISZSP.

### **1.5 Purpose of the Study**

In search for literature and studies conducted on the ISZSP, I embarked on an extensive and exhaustive library search on various databases, and used the copious search terms. This search yielded no studies that have investigated the cultural and linguistic

appropriateness of the ISZSP for isiZulu-speaking learners. I also did not come across any studies showing how the assessment situation is culturally constructed and mediated between the psychologist and the learner, given the linguistic challenges inherent in the ISZSP. This is of concern because in addition to the background explained above, psychologists have an ethical obligation not only to evaluate translated assessment tools of cognitive abilities for currency and contextual relevance every decade (APA, 2010; Bartram, 2001; Hambleton, 1994, 2001; ITC, 2001, 2010, 2013; Oakland, 2005) – they also need to continually reflect on how their own sociocultural positionality affects the assessment situation in relation to the cultural positioning of the learner (Barresi, 2002; Beaujean, 2015; Hennig & Kirova, 2012; Lachmann, 2009). The latter requires studies into the socially mediated nature of assessment practices.

It is against this background that the proposed study aims to evaluate the cultural and linguistic appropriateness of the ISZSP for use with CLD learners in the province of KwaZulu-Natal (KZN). The study also aimed to establish the mechanisms and strategies by means of which the assessment process is negotiated between the psychologist (assessor) and the learner in the context of cultural and linguistic challenges emanating from the testing tool as well as the process itself.

The purpose of the study, therefore, was to address the unethical use of the ISZSP and evaluate this tool's currency and contextual relevance, as well as its cultural and linguistic appropriateness for the population it was intended for. As psychologists have an ethical responsibility and obligation to continuously evaluate assessment measures they use in their practice, the proposed study seeks to look into the experiences of isiZulu-speaking African psychologists in terms of gaps and challenges that they may have identified when using the ISZSP in their practice. The study explored ways in which they have attempted to address those challenges.

## **1.6 Objectives and Research Questions**

The major objective of this study was to conduct a qualitative evaluation of the contextual relevance and appropriateness of the ISZSP. The study set out to examine its cultural and linguistic appropriateness for use with isiZulu-speaking learners.

The primary research question for the study was: How is the ISZSP culturally and linguistically appropriate for use with the population that it is intended for?



The secondary research questions for the study were:

RQ1: What are psychologists' experiences and views regarding the cultural and linguistic appropriateness of the ISZSP for the intellectual assessment of isiZulu mother tongue learners in its current form?

RQ2: What have psychologists observed to be challenges faced by isiZulu mother tongue learners in understanding the language used in the ISZSP?

RQ3: What mechanisms and processes do psychologists adopt to address linguistic and other challenges in using the ISZSP?

RQ4: How do psychologists and learners co-construct and negotiate the assessment process in the context of linguistic, social and cultural barriers during the administration of the ISZSP?

### **1.7 The Methodological Approach of the Study**

The current study adopted a social constructionist paradigm in order to address the research questions. This paradigm was found suitable for the study because it focuses on the social construction of knowledge through interaction shared by individuals, with the aim of understanding the world of human experience (Cohen & Manion, 1994; Mertens, 2005). This paradigm was also chosen as it is inspired by Lev Vygotsky (1978) and Mikhail Bakhtin (1981), whose works provided the theoretical framework for the thesis. Adopting a social constructionist research paradigm allowed for a triangulated descriptive-interpretive qualitative research design (Elliot & Timulak, 2005). This research design sees meaning-making in the social world as constructed through social interactions continuously (Bakhtin, 1981; Elliot & Timulak, 2005; Hesse-Biber & Leavy, 2011). Bakhtin's (1981) dialogism was employed as a theoretical and methodological framework for this study. Dialogism focuses on the relational and dialogic nature of human existence as well as exploring the notion of *voice* and *authorship*. Attention is paid to the language – verbal and non-verbal – its role, lived construction, depiction and interpretation by another. Bakhtin (1981) viewed *voice* as a collaboration of multiple dialogues, used by the individual in order to enter into dialogue with another. The Bakhtinian approach allowed me to attend to each voice of the participants and their points of view as opposed to privileging any one voice over another, which Bakhtin (1981) preferred as a polyphonic approach.

In employing Bakhtin's dialogism, the participants were recruited within the province of KwaZulu-Natal, and were depicted as *authors* and *heroes* of the dialogical assessment

act, which is the assessment process during which the intelligence of isiZulu-speaking learners is examined. The data collected were in the form of expert review reports written by psychologists, and in the form of audio-visual recordings of learners being assessed using the ISZSP. I also performed the role of an *author* who attempted to make sense of what the participants offered and draw meaning from the discourses they put forth. Bakhtin's notion of the utterance was adopted as the unit of analysis. In analysing the data, utterances were identified as well as the responses they enacted. These were discussed in relation to dialogism and concepts thereof that signify the dialogical nature of human functioning, and, ultimately, the dialogic nature of the process of assessing the intellectual functioning of isiZulu-speaking learners. The theoretical framework of the study and the research methodology are discussed in detail in Chapter 3 and Chapter 5 respectively.

### **1.8 Delimitations of Scope**

This study was conducted in the province of KwaZulu-Natal, South Africa. It qualitatively evaluated the cultural and linguistic appropriateness of the ISZSP, which is a translated tool for assessing intelligence in isiZulu-speaking learners. In giving the cultural and linguistic profile of the country and the background of isiZulu-English bilingualism in KwaZulu-Natal, I discussed language fluidity, lexical borrowing and code switching. However, these concepts were not discussed extensively, and the focus was not placed on the theoretical and grammatical aspects of code switching.

Bakhtinian dialogism has been used in this thesis as the key theoretical and methodological framework (Bakhtin, 1981). Selected theories of intelligence and theories of cognitive development were used to demonstrate the advocacy for a Bakhtinian view and approach to human intellectual functioning. The findings of the current study apply to the use of the ISZSP by isiZulu-speaking psychologists with isiZulu-speaking children in KwaZulu-Natal, and cannot be generalized to the totality of isiZulu-speaking children and psychologists in South Africa.

### **1.9 Operational Definition of Terms**

The key terms used in this study are briefly defined below, and are elaborated further in subsequent chapters.

**African and Black African:** In this thesis, the term African refers to indigenous African people. The term Black African has been used in reference to indigenous South African people who were classified as Blacks during the apartheid era (Mukundi, 2009).

**Bilingualism and Bilinguals:** Bilingualism refers to the regular use of two languages; bilinguals refer to individuals who speak two languages daily, with differing levels of second language proficiency (Asbjørnsen, 2013; Bethlehem, De Picciotto & Watt, 2003).

**Code switching:** This refers to the intersentential and intrasentential switching of two languages by an individual speaker (Ferrett, 2011; Ndimande-Hlongwa & Ndebele, 2014).

**Culturally and Linguistically Diverse (CLD) learners/children:** This term refers to learners or children for whom English is not their mother tongue (Cormier, McGrew & Evans, 2011; Schon, Shaffel & Markham, 2008).

**Dialect:** A manner of speaking peculiar to an individual or a community or a class or a region (Mufwene, 2014).

**Dialogism:** The central means through which people socially engage in sharing meaning, knowledge and understanding. It is an epistemology that seeks to understand human behaviour through the use that humans make of language (Bakhtin, 1981).

**Diglossia:** The “relatively stable situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards), there is a divergent, highly codified (often grammatically more complex) superposed variety, ... which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any sector of the community for ordinary conversation” (Ferguson, 1959, p. 336).

**Heteroglossia:** The basic conditions that govern the operation of meaning in an utterance. These are conditions (e.g., historical, social, cultural, physiological, etc.) that ensure the primacy of context at the time the utterance was used over text. These are qualities of a language that are extralinguistic, but communal to all languages (Bakhtin, 1991).

**Indigenous language:** A form of a dialect that is native to a region and spoken by indigenous peoples, but has been reduced to the status of a minority language (Ndebele, 2012; Ngcobo & Nomdebevana, 2010).

**Language contact:** An instance whereby two or more languages come into contact when they are used alternately by the same persons (Calteaux, 1994; Chambers, Trudgill & Schilling-Estes, 2004); Manfredi, Simeone-Senelle & Tosco, 2015).

**Language shift:** The gradual change from the habitual use of one language to that of another, leading to bilingualism (Posel & Zeller, 2015).

**Language variation:** The different ways of speaking and writing a particular language. Variation in a language may be concomitant with geographical background, social class, educational background, age and gender. This may also be augmented by the imbalances which exist with respect to accessibility to material sources. Thus, a speaker who is exposed to diverse speech domains within a community will have more vocabulary than the one who is not (Chambers et al., 2004).

**Psychological assessment:** Psychological assessment refers to the process-oriented activity that gathers and evaluates a wide assortment of information by using assessment tools and test batteries, as well as information from various sources (Foxcroft & Roodt, 2009).

### **1.10 The Synopsis of the Thesis**

**Chapter 1** has presented the background and context of the study. It presented the changing context of psychological assessment practices globally and mainly in South Africa – specifically, the change in ways of understanding intellectual functioning that has transpired within culturally and linguistically diverse contexts, initiating an evaluation and re-examination of intelligence measures. The chapter has also discussed the legal and ethical context of psychological assessment in South Africa that strongly accentuates the evaluation of the cultural and linguistic appropriateness of the ISZSP, and the purpose for evaluating the ISZSP in that light – given the obligation for psychologists to evaluate psychological assessment tools as stipulated by national and international standards for test use, adaptation and translation. The chapter also gives a brief historical background to the development of the ISZSP. This chapter has also introduced Bakhtinian dialogism as

a framework for the study, which is further discussed in Chapter 3. The chapter concludes by defining terms and concepts used throughout the study.

In **Chapter 2**, various cultural conceptions of intelligence are presented. This is followed by a discussion of some of the traditional theories of intelligence that have contributed to test construction and development to date. The chapter moves on to review the construction of the ISZSP in light of these theories and cultural conceptions of intelligence. The chapter concludes by indicating a link between the Vygotskian social constructionist view of intelligence to propose a dialogic view to the psychological assessment process.

**Chapter 3** provides the argument for a Bakhtinian dialogical view of human functioning and its relevance to psychological assessment in diverse multicultural contexts. This view is proposed as a suitable approach to the understanding and assessment of intellectual functioning of isiZulu-speaking children instead of the Piagetian constructivist view. Bakhtin's dialogic philosophy, its origins and key concepts are presented, demonstrating the depth and breadth of Bakhtin's ideas as they applied throughout the study. Drawing from Bakhtin's dialogism aids in understanding the dialogic nature of the human mind, which organizes thinking and psychological functioning in a broad social and societal context, taking the point of view of other individuals, and anticipating a possible answer. The chapter discusses the various philosophies of the self, viz. the Cartesian self, the African conception of selfhood and the dialogical self. Chapter 3 argues for a dialogical approach to the psychological assessment process where psychological assessment is not accepted as a monologic act, but as a polyphonic act with multiple voices that represents the coming together of multiple, albeit unequal, voices. It is argued that dialogism and the theory of the dialogical self allows for an approach to test construction and development that is culturally and linguistically appropriate.

**Chapter 4** presents literature on the cultural and linguistic diversity within the South African context, as well as the language shift, bilingualism and isiZulu-English code switching. The chapter also presents empirical literature on issues pertaining to the assessment of intellectual functioning for culturally and linguistically diverse learners. These are challenges faced by both psychologists and CLD learners in the context of psychological assessment when using Western-developed tools. This literature review reveals the challenges of using such psychological assessment tools that are embedded in Western, constructivist notions of intelligence and not rooted in culture.

In **Chapter 5** dialogism is operationalized as a research methodology and as a fundamental approach to responding to the research questions. The chapter presents the research design and methods that were employed in conducting this study. The chapter gives an account of participant recruitment and data generation which yielded audio-visual data and written expert review reports. Data analysis and presentation employed Bakhtin's concept of the utterance as the unit of analysis. The chapter also discusses ethical issues that were considered, encountered and addressed during the study, as well as matters pertaining to credibility, dependability and transferability.

**Chapter 6** and **Chapter 7** present the findings obtained from written expert review reports and video recordings of the assessment process. All the findings are presented by highlighting the utterances that emanated from dialogue in the data, demonstrated by extracts from written reports and from the video recordings. The chapter also discusses the research findings in relation to literature and theory. The argument for the dialogical approach to the psychological assessment of intellectual functioning of isiZulu-speaking learners is further strengthened in this chapter.

**Chapter 8** concludes the thesis. Conclusions about the research questions are drawn from the findings. The chapter discusses these conclusions and their implications for theory, policy and practice. The limitations of the study are highlighted, leading to recommendations for future research.

## **1.11 Conclusion**

This chapter has introduced the background and context to psychological assessment in the South African context, and the ethical obligation for psychologists to review psychological tests. The psychological assessment of intellectual functioning has generally relied heavily on the use of Western-developed tests, which are imbued with Western conceptions of intelligence. It is essential that psychologists adhere to national and international ethics codes of practice to ensure fair service delivery to their South African clientele. This thesis adheres to that ethical responsibility, and it qualitatively evaluated one of the tools that are currently used to assess the intelligence of isiZulu-speaking learners. The following chapters detail how the study unfolded, the collection, analysis and discussion of data, and conclusions drawn from the study.

## CHAPTER 2

### THE SOCIAL CONSTRUCTION OF INTELLIGENCE AND THE REVIEW OF THE CONSTRUCTION OF THE INDIVIDUAL SCALE FOR ZULU-SPEAKING PUPILS

*"Truth is not born nor is it to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction" (Bakhtin, 1984, p. 110).*

#### 2.1 Introduction

This chapter presents a discussion on various cultural conceptions of intelligence. Selected traditional theories of intelligence are discussed in relation to their contribution to test construction and development. Based on the review of cultural conceptions and theories of intelligence, the chapter inspects the construction of the ISZSP and its relevance for the population it is intended for. This reveals that the construction of the ISZSP was influenced by Western theories of intelligence, which differ from African epistemological views of intelligence. The implications thereof are discussed and a social constructionist view to the process of assessing intelligence in isiZulu-speaking learners is proposed.

#### 2.2 Cultural Conceptions of Intelligence

Intelligence is one of the main constructs that psychologists have tried to understand by means of psychological assessment techniques. Hence it is central to understand intelligence as a construct before one can muse on how it is or should be assessed. Despite numerous attempts (such as the selected few presented in this section), the concept of intelligence continues to elude an exact definition (Fletcher & Hattie, 2011; Sternberg, Grigorenko, & Kidd, 2005). The following sections present various cultural conceptions of intelligence and theoretical definitions of intelligence.

##### 2.2.1 Dominant Western conceptions of intelligence.

Snyderman and Rothman (1987) conducted a survey enquiring from Western social scientists and educators their views on the nature of intelligence. The results of this survey showed that 99.3% of the participants indicated that for intellectual functioning, abstract thinking or reasoning was an essential element of intelligence; about 97.7% indicated that the problem-solving capability was important, and 96% indicated that the capacity to acquire knowledge was essential. This accentuates the significance of thinking, learning and problem solving as elements of intelligence (Snyderman & Rothman, 1987; Sternberg & Kaufman, 1998; Valencia & Suzuki, 2001; Wilson & Mujtaba, 2008).

Activities in Western traditions are more technological than other cultures. Technological intelligence is greatly emphasized in Western cultures and has significance in their school syllabi (Wilson & Mujtaba, 2008). Additionally, in the West, intelligence is defined narrowly to include abstraction and academic achievement (Deary, Penke & Johnson, 2010; Nisbett, 2010; Ogbu, 1988). For Western society, intelligence is conceptualized as an application of those skills pertinent to daily life, viz., inference, abstract reasoning, problem solving, problem transfer and decision making (Cocodia, 2014; Sternberg, Conway, Ketron, & Bernstein, 1981). A study by Sternberg et al. (1981) found that vocabulary, verbal fluency, speed of mental processing, problem solving, awareness of the world and social skills were valued highly as characteristics of intelligence. In another study, members of the general public and social scientists were asked to define intelligence (Sternberg, 2000). It was found that their responses were remarkably comparable. Both groups explained intelligence as an intricate construct made up of verbal ability, processing speed, practical problem solving and social competence. It is worth noting that some of the Western notions about intelligence are not shared by other cultures, such as the Western emphasis on speed of mental processing (Sternberg, 2000). Other cultures emphasize slow, contemplative reflection when completing a task rather than speed of processing (Durojaiye, 1993; Wilson & Mujtaba, 2008; Wober as cited in Berry & Dasen, 1974).

Western conceptions of intelligence also emphasize factors such as generalization or going beyond the information given, least moves to a solution in problem solving tasks, and creative thinking (Sternberg, 2004). Furthermore, silence is construed as a lack of knowledge or even lack of intelligence (Earley & Ang, 2003; Kirova, 2011; Viruru, 2001). Diverging from this view, Africans view people of higher social class, intellect and distinction as speaking less (Kirova, 2011; Sternberg, 2003).

The current study argues that psychological assessment that is imbued with the Western conceptualization of intelligence – only valuing academic achievement, processing speed and analytical thinking processes – provides a poor measurement of intellectual functioning and the relational forms of knowing that are adaptive and valued in African cultures, such as the Zulu culture. The dissimilarities between the African and Western notions suggest the usefulness of considering African notions of intelligence as a contrast to those of Western traditions.



### **2.2.2 Dominant Asian/Eastern conceptions of intelligence.**

Asian notions of intelligence are embedded in Eastern customs that govern perceptions of intelligence (Das, 1994; Sternberg, Grigorenko, & Zhang, 2008; Sternberg & Kaufman, 1998). These conceptions of intelligence diverge considerably in Asia as the continent comprises a wide range of cultural differences and beliefs (Cocodia, 2014). Asian cultures embrace Confucian, Taoist, Hindu and Buddhist philosophies, which encourage moral and religious attitudes that are reflective of individual behaviour. Consequently, intelligence is intertwined with religion and moral behaviour (Das, 1994; Sternberg et al., 2008; Yang & Sternberg, 1997; Zhang & Wu, 1994).

The *Confucian* tradition influences the actions of individuals within their culture; viewing an intelligent person as one who dedicates his or her life to character cultivation so that he or she will be able to represent benevolence and act according to what is right (Das, 1994; Sternberg, 2003; Yang & Sternberg, 1997). The person that is perceived as intelligent spends an immense time and effort acquiring knowledge and relishing learning throughout his or her life (Das, 1994; Lima, Plucker, & Im, 2002). Confucian culture vastly venerates a scholarly individual and endorses social behaviours such as politeness, honesty, sincerity, discipline, self-respect and vocabulary (Cocodia, 2014). The educated studious individual, who constantly desires more knowledge, is perceived as intelligent in comparison to the uneducated person, leading to education being highly valued in the Confucian tradition (Zhang & Wu, 1994).

The *Taoist* tradition pronounces an intelligent person as one who knows *Tao*, i.e., *the true greatness*, and can put this into practice, being insightful and receptive to deviations in immediate circumstances (Cocodia, 2014; Das, 1994; Yang & Sternberg, 1997). The Taoist tradition emphasizes the importance of meekness, freedom from conservative standards of judgment, and full awareness of oneself and of external conditions (Sternberg, 2003). Social skills are essential elements of intelligence in this culture, and individuals are expected to conduct themselves suitably while preserving appropriate relationships (Sternberg, 2003; Zhang & Wu, 1994). The intelligent person for the Taoist tradition is he or she who has full knowledge of his or her internal and external assets, and is able to conceal his or her strengths and behave humbly (Yang & Sternberg, 1997).

For *Hindu and Buddhist* traditions, intelligence includes attributes such as determination, mental effort, comprehending, knowledge, discrimination, perceiving, recognizing and decision making; intelligence is that which is best used for acquiring knowledge (Das, 1994; Lima et al., 2002; Sternberg et al., 2008; Wilson & Mujtaba, 2008). It is postulated that

intellect and knowledge are attained through the five senses and five motor organs, which suggests that perception and motor skills are necessary for gathering knowledge (Cocodia, 2014). Das (1994) stated that the Hindu and Buddhist traditions conceptualize the purest form of intelligence as emerging within individuals only when they have traversed a stage of enlightenment – which is characterized by concentration, wisdom, generosity, morality and vigour. On reaching the stage of enlightenment, in order to achieve the utmost untainted form of intelligence, the individual has to give up any egocentric thoughts and refrain from any superfluous negative emotions, prejudices, and all behaviour that is likely to hinder achievement (Chen & Chen, 1988; Das, 1994; Wilson & Mujtaba, 2008).

On the whole, Eastern/Asian conceptions of intelligence generally include social skills, cognitive skills and knowledge. The biological aspects of intelligence are not utterly suspended, but emphasis is more on veracious and principled social relations within a culture (Valencia & Suzuki, 2001). This thesis suggests, therefore, that the manner in which intelligence tests are constructed should allow for contextually relevant assessment. In the case of the views discussed in this section, this would mean taking into account Eastern conceptions of intelligence when assessing East/Asian testees, as opposed to focusing only on the inborn biological and neurological factors of intelligence. The same would apply for assessing people of Western and African origin.

### **2.2.3 African indigenous conceptions of intelligence.**

African studies posit an alternative view of intelligence. This thesis does not suggest that what it presents is an all-embracing and exclusively African conception of intelligence. Rather, that it is a dominant view of intelligence, especially among the Black African population. Ruzgis and Grigorenko (1994) have argued that African conceptions of intelligence revolve largely around skills that expedite and preserve harmonious and constant intergroup and intragroup relations, i.e., between groups and within group interactions. Cocodia (2014) highlighted Africa as having a diversity of beliefs, languages, religions and social organizations, with similarities and differences in the African people's conceptions of intelligence. One of the differences is found in Western Nigeria, where the Yoruba people's conception of intelligence is referred to as *ogbon* – which means sensible and acceptable behaviour that everyone is capable of, and should exercise daily (Cocodia, 2014); while Ogbu (1988) notes that the Igbo people's conception of intelligence puts more emphasis on specific practical skills. It has also been found that some African communities normally would not separate intelligence from social

competence (Serpell, 1974, 1976); cognitive ability and social responsibility are perceived as intertwined.

Serpell (1974, 1976), in his study of the Chewa people of Eastern Zambia, found that their conceptions of intelligence included specific practical skills, and varied from Western notions. In East Africa, intelligence is conceptualized as inclusive of skills for comprehending instructions, practical thinking, respect, obedience, cooperativeness, social responsibility and consideration (Grigorenko et al., 2001; Lima et al., 2002; Serpell, 1996). Similarly, in Zimbabwe and Mali, to be intelligent means to be polite, obedient, respectful to elders, prudent and cautious (Dasen, 1984; Putnam & Kilbride, 1980; Sternberg, 2004). For the Baoule, "responsibility, initiative, honesty, verbal memory, speaking in a socially appropriate manner, maturity, wisdom, luck, observation, manual dexterity, and attention are seen as key to intelligence" (Valencia & Suzuki, 2001, p. 44). Moreover, Zambians and Zimbabweans tended to place more emphasis on practical intelligence and less on (although not excluding) academic intelligence (Sternberg et al., 2001).

Similarly, Super and Harkness (1982, 1986, 1993) found Kenyans to emphasize social interconnectedness, as well as responsible participation in family and social life, as essential elements of intelligence. They found Kenyan conceptions of intelligence to incorporate good judgement of interpersonal relations, responsibility, unselfishness, wisdom, cleverness or smartness, inventiveness, the ability to comprehend complex matters, verbal accuracy, verbal fluency and cognitive abilities (Lima et al., 2002; Super & Harkness, 1993).

In Uganda, research findings reveal another viewpoint concerning what intelligence is supposed to be. The people of Uganda relate intelligence to slow, careful, vigilant and deliberate thought (Wilson & Mujtaba, 2008; Wober, as cited in Berry & Dasen, 1974). They value the careful consideration of several alternative solutions with slow, internal examination before sharing their thoughts with others (Wober, as cited in Berry & Dasen, 1974). This provides evidence that speed, for this African culture, is not perceived as essential in comparison to Western culture. However, those that have been exposed to Western types of schooling in Uganda may promote an understanding of intelligence that reflects their acculturation to Western society.

Studies conducted in South Africa have found that Zulus value interpersonal and intrapersonal aspects of intelligence more than the other aspects (Furnham, Mkhize, &

Mndaweni, 2004; Furnham, Ndlovu, & Mkhize, 2009). Furnham et al. (2009) affirm that intelligence has a broader meaning in many African cultures, and is not limited to problem solving aptitudes and knowledge accumulation, but encompasses social skills, mature reflection and world wisdom.

The prominence of relational and social aspects of intelligence is not limited to African cultures. As it can be noted from the discussion above, Asian conceptions of intelligence also emphasize social aspects more than Western IQ-based views do (Chen & Chen, 1988; Cocodia, 2014; Das, 1994; Sternberg, 2003; Sternberg & Kaufman, 1998; Valencia & Suzuki, 2001). As mentioned earlier, groups of African communities have also been found to emphasize the importance of slow, deep and reflective thought instead of speed and reaction time. Information processing, speed and reaction time are some of the most important aspects that are measured by intelligence tests; those who value slow, deep and reflective thought are likely to be found lacking in tests of this nature.

Some African communities emphasize the importance of listening rather than just talking, and of being able to see all facets of a matter, and to place that matter in its appropriate overall context (Carter et al., 2005; Durojaiye, 1993; Greenfield, 1997; Wilson & Mujtaba, 2008; Wober, as cited in Berry & Dasen, 1974). While Africans do value achievement, they do not esteem it as highly as do people of Western and East/Asian origin. This is because traditional African upbringing seeks to promote group harmony as well as humility in talking about one's accomplishments (Furnham et al., 2004; Wober, 1975). Nevertheless, neither Africans nor Asians emphasize exclusively social notions of intelligence – they also acknowledge the importance of cognitive aspects of intelligence, which are socially mediated.

As it can be deduced from the literature discussed above, defining intelligence is a complex task, and conceptualizing intelligence outside culture is perplexing (Earley & Ang, 2003). Indigenous conceptions of intelligence vary based on experiences within cultural environments. It has been argued that intelligence is conceptualized as that which is defined by a particular culture, having an indigenous meaning (Anastasi, 1992; Berry, 1994; Cocodia, 2014; Nisbett, 2010; Ogbu, 1994). Intelligence has also been described in relation to behaviours that are considered intellectual from the point of view of people within specific cultures, and it has different meanings depending on various contexts in which the term intelligence is used (Brislin, Worthley, & MacNab, 2006; Earley, 2002; Sternberg & Grigorenko, 2004). It is a shared activity; a construct mediated and defined by culture, socially constructed based on expectations and demands placed on

members of that culture (Nisbett, 2010; Thomas-Presswood et al., 1997). It is noteworthy that all cultures do not exclude cognitive abilities in their conceptualization of intelligence (Cocodia, 2014).

In view of the indigenous conceptions of intelligence, assessment practices for assessing African children from bi/multilingual backgrounds should be ensured to be culturally appropriate. This would mean that the development of appropriate tests or the appropriate adaptation of intelligence tests should incorporate those aspects that are believed to constitute intelligence in African contexts. When assessing the intellectual functioning of isiZulu-speaking children, tests should examine the behaviours that are deemed as significant aspects of intelligence in addition to the cognitive aspects of intelligence. Currently, the ISZSP does not allow for this as it was translated from a tool that was developed on the basis of a Western concept of intelligence. The current study has endeavoured to explore the ability of the ISZSP to provide an opportunity for the psychologist and the assessed child to engage in a relational, culturally appropriate assessment process in the midst of cultural and linguistic barriers.

To ensure fair, culturally and contextually relevant assessment of intellectual functioning of isiZulu-speaking learners, it is as important to understand theories of intelligence as it is to understand various indigenous conceptions of intelligence. The following section explores some of the traditional theories of intelligence that contribute in the development and construction of intelligence tests. The section illustrates how some theories of intelligence have ignored the contribution of culture in the development of intelligence. Some theories have incorporated cultural factors, but they still reflect cultural bias. This thesis suggests that test development processes should ensure cultural fairness and contextual relevance for populations that tests are intended for.

### **2.3 Theoretical Influences on Intelligence Test Construction and Development**

The current study argues that the way intelligence has traditionally been defined and understood has implications for culturally and linguistically fair assessment of intellectual functioning. Historically, traditional theories have defined intelligence as an “adjustment or adaptation of the individual to his total environment; the ability to learn and the ability to carry on abstract thinking” (Freeman, 1955, pp. 60-61). Intelligence has also been defined as “the ability to plan and structure one’s behaviour with an end in view” (Das, 1973, p. 27); and as the “mental activities involved in purposive adaptation to, shaping of, and selection of real world environments relevant to one’s life” (Sternberg, 1986, p. 33).

The definition of intelligence later encompassed the “ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning, to overcome obstacles by taking thought” (Neisser et al., 1996, p. 77), and to “think abstractly, learn quickly and learn from experience” (Gottfredson, 1997, p.13). All these definitions imply that intelligence is comprised of a variety of qualitatively different individual abilities (Anderson, 2001; Berk, 2000; Deary et al., 2010; Fletcher & Hattie, 2011; Sternberg et al., 2005; Sternberg, 1985, 1986; Zhu & Weiss, 2005).

This calls for an examination of varying theories of intelligence and how they contribute to culturally and linguistically relevant psychological assessment. Moreover, the significance of these theories in diverse cultural settings is very crucial as a deficiency of contextual relevance would result in psychological assessment that lacks cultural validity.

### **2.3.1 Theories of intelligence.**

This section presents some of the major theories professed by experts in the field of intelligence. It must be noted that this section does not intend to extensively review all theories of intelligence. I selected a few theories that are significant for the current study to highlight the need for theorizing intelligence in a manner that would encompass all factors that contribute to cognitive development – not only the biological factors, but also the cultural, social and relational factors. This would lead to the development of relevant tests and would result in assessment processes and practices that take all these factors into account, thus rendering a fair and contextually relevant examination of intellectual functioning.

#### **2.3.1.1 Spearman's two-factor theory.**

Spearman's two-factor theory is one of the theoretical extensions of the Western conceptions of intelligence. Charles Spearman (1904), a British psychologist, proposed that intellectual abilities were comprised of two factors: one general, or common, ability known as the *g* factor, and the other, which is a group of specific abilities known as the *s* factor. Spearman invented factor analysis in 1904 as part of an experiment to “find out whether the abilities commonly taken to be intellectual had any correlation with each other or with sensory discrimination” (Spearman, 1927, p. 322).

Spearman obtained teacher evaluations of 36 students from a village school. Students were rated on the usual academic subjects (Latin, English, and Math) as well as music and pitch discrimination (Cocodia, 2014; Beaujean, 2015; Kane & Brand, 2003; Sattler, 1992;

Spearman, 1904, 1927). The observed correlation between the variables prompted Spearman to hypothesize that the variables shared a common source of variance, which he termed a general factor of intelligence (Cocodia, 2014; Spearman, 1904). From the observation that variables had different levels of intercorrelation, he concluded that the variables had different levels of saturation with the general factor, which he called *g*. This *g* is a biological variable; it is a property of the brain (Jensen, 1998). The *g* factor thus leads to a description of intelligence as a sum total of all mental abilities, with the brain carrying out all mental tasks (Beaujean, 2015; Cocodia, 2014; Jensen, 1998; Spearman, 1927). This extends the Western conceptions of intelligence which locate intelligence as residing within the individual.

The *s* factor is acquired by the individual from the environment; it varies from activity to activity in the same individual (Sattler, 1992). As indicated above, the *g* factor is a fixed inborn cognitive ability; greater '*g*' in an individual leads to greater success in life (Herrnstein & Murray, 1994; Tlali, 2011). Therefore, intellectual performance in any task would include a mixture of *g* and *s* (Tlali, 2011). Spearman's *g* is a central concept in psychologists' thinking about intelligence; it is perceived as the true core of intelligence, and serves as a common reference point in psychological test manuals (Adewusi, 2011; Cocodia, 2014; Hogan, 2007; Mokoena, 2013).

Spearman's two-factor theory is based on Western conceptions of intelligence. Consequently, during assessment, psychologists only focus on examining the greater *g* and the mental abilities involved in carrying out assessment tasks. The current study challenges the centrality of considering only the *g* factor during the assessment of isiZulu-speaking pupils, and argues that intelligence is not a merely innate, fixed construct, residing only within the individual. I do not dispute the fact that inborn traits and inborn cognitive abilities are essential for intellectual functioning, however, I propose that Spearman's two-factor theory does not account for the sociocultural genesis of intelligence and the relational nature thereof as it is perceived in African indigenous cultures.

### **2.3.1.2 Thurstone's primary mental abilities theory.**

Louis Thurstone (1938), another British psychologist, contested the idea that intelligence comprised Spearman's overarching *g*. He disagreed with the idea that *g* was the only factor that constitutes intelligence. He offered a theory of intelligence that did not accommodate *g*, but supported the existence of a series of special cognitive abilities (Alfonso, Flanagan & Radwan, 2005; Beaujean, 2015; Thurstone, 1938; Tlali, 2011). He

analysed the results of 50 intelligence tests, which he administered to college students, and identified eight factors, which he termed primary abilities. He labelled the factors as: V (Verbal Comprehension, e.g., interpreting quotes or proverbs, generating antonyms, synonyms, and analogies), N (Numerical Ability, e.g., mental manipulation of numbers, speed and accuracy of ability), M (Memory, e.g., paired-association tasks), I (Inductive Reasoning, e.g., inference, extrapolation, and interpolation), D (Deductive Reasoning, e.g., hypotheses, syllogism), P (Perceptual Speed, e.g., grouping objects, rearranging disordered words into sentences), W (Word Fluency, e.g., anagrams), and S (Spatial Relations, e.g., spatial manipulation, imagining how visuals maybe rotated in other positions) (Hogan, 2007).

Together with Thelma Thurstone, his wife, Thurstone developed the Primary Mental Abilities Test (PMA) to measure the eight primary mental abilities (Thurstone, 1938; Thurstone & Thurstone, 1941). This approach has the implication that in the assessment context, the child might perform differently on different sets of items, which means that children cannot be assessed in terms of general intelligence; rather they may perform differently across a range of tasks (Smith, Cowie & Blades, 2011).

Similar to Spearman's two-factor theory, Thurstone's primary mental abilities theory is entrenched on Western notions of intelligence as it focused on innate biological factors that contribute to the development of intelligence. His theory excludes social and cultural factors, thus deviating from what other cultures hold essential in the construction of intelligence.

### **2.3.1.3 The Cattell-Horn-Carroll (CHC) theory of fluid and crystallized intelligence.**

Raymond Cattell (1963) was a British and American psychologist who suggested that Spearman's single unitary *g* factor could be divided into two separate yet complementary factors. The first is fluid intelligence (*Gf*), which is an inherited quality, influenced by biological and neurological factors. *Gf* refers to problem-solving skills, information-processing abilities, and basic reasoning abilities that allow an individual to think and acquire new knowledge (Cattell, 1963; Kane & Engle, 2002; Primi, 2002; Stankov, 2003). The second factor is crystallized intelligence (*Gc*), indicating an individual's verbal comprehension, general knowledge and understanding learned from experience (Bates & Shieles, 2003; Cattell, 1963; Horn, 1991, 1994; Kane & Brand, 2003). Fluid intelligence and crystallized intelligence are considered to be the main contributors to general intelligence (Horn, 1994; McGrew, 1997, 2005).



John Horn (1968), an American psychologist, was Cattell's student who, and aided in expanding Cattell's theory to include quantitative knowledge and quantitative reasoning as well as short-term retrieval memory, which is inclusive of other memory abilities such as associative memory, meaningful memory and free-recall memory. The Cattell-Horn Gf-Gc theory incorporated nine broad mental abilities, viz., Fluid Intelligence (Gf), Crystallized Intelligence (Gc), Quantitative Knowledge (Gq), Reading/Writing (Grw), Visual-Spatial Thinking (Gv), Auditory Processing (Ga), Long-Term Retrieval (Glr), Short-Term Retrieval (Gsm), and Processing Speed (Gs) (Horn, 1968, 1991, 1994).

Merging the elements of the *g* factor and the Gf-Gc model, John Carroll (1993) developed the hierarchical Three Stratum theory. Carroll's theory was established through a survey and factor analysis of more than 460 prominent datasets in the literature. The Three Stratum theory is hierarchical:

- Stratum III (general level) comprised a single general ability, *g*.
- Stratum II (broad level) included eight factors, viz., fluid intelligence, crystallized intelligence, general memory and learning, broad visual perception, broad auditory perception, broad retrieval ability, broad cognitive speediness, and processing speed.
- Stratum I (specific level) included numerous skills and abilities depending on the second-level stratum to which they are linked (Carroll, 1993, 1997).

The Cattell-Horn-Carroll (CHC) model integrates the Gf-Gc theories of Cattell and Horn with Carroll's three-stratum theory (Alfonso et al., 2005; Beaujean, 2015; Sternberg, 1985). The contributions of the CHC Gf-Gc theory functioned not only to increase an understanding of the intricacies of intelligence, but also to enrich the use of research practice in order to explore further facets of human behaviours (Beaujean, 2015; Carroll, 1993; Cattell, 1963; Horn, 1968). To date, the CHC Gf-Gc theory of fluid and crystallized intelligence has become renowned in assessing intelligence and academic strengths and weaknesses (Alfonso et al., 2005). Intelligence test developers rely on the CHC theory in defining and interpreting cognitive ability constructs, and use this theory to guide the development of intelligence tests (Alfonso et al., 2005; Beaujean, 2015).

For decades, intelligence testing focused on assessing Gf using different items that examine the child's level of intellectual functioning (Carroll, 2005). As with Spearman's *g*,

Gf stems from Western worldviews of what constitutes intelligence. Gf focuses on cognitive and neurological abilities, further accentuating intelligence as residing within the individual. Although learnings from experience are acknowledged as Gc, the current study contests this theory as it does not account for the role and contribution of culture and other individuals in the development and shaping of intelligence.

### **2.3.2 Principles of test construction and development.**

Test developers follow certain principles when developing tests. Some of them include standardization, validity and reliability, which relate to psychometric properties of tests (Brink, Louw, & Grimmer-Somers, 2011; Markle, Olivera-Aguilar, Jackson, Noeth, & Robbins, 2013; Terre Blanche, Durrheim, & Painter, 2009). This section will discuss Binet's two principles of age differentiation and general mental ability that are based on theoretical conceptions of intelligence. These principles are embedded in biological theories of intelligence, thus leading to the development of intelligence tests that assess only the cognitive and neurological aspects of intelligence. The development of the ISZSP encompassed these principles, and as a result it assesses intelligence as theorized in the West, and ignored the African conceptualization of the construct.

Spearman's two-factor theory served as the main test blueprint for the first individually administered intelligence test batteries; and the CHC theory has formed the foundation for the revision of old test batteries and the development of new IQ tests (Alfonso et al., 2005; Gottfredson & Saklofske, 2009; Kaufman, 2009; McGrew, 1997, 2005, 2009). These two theories contributed to the psychometric approach to intelligence, which is concerned with the quantitative measurement of mental abilities (Horn, 1989; McGrew, 2009).

As one of the original authors of intelligence tests, Binet was guided by two principles, viz., age differentiation and general mental ability (Binet & Simon, 1905; Kaplan & Saccuzzo, 2013). He defined intelligence as the capacity to take and maintain a definite direction, the ability to make adaptations and judgments for the purpose of achieving a desired end, and the power of autocriticism (Binet, 1905). From this definition, the Binet-Simon Intelligence Scale was developed in 1905 to assess the capacity of the individual in answering a series of questions related to problem solving, analytical skills and spatial activities, yielding an IQ score through which the individual's abilities can be distinguished in different areas of knowledge (Binet, 1905; Boake, 2002).

### **2.3.2.1 The principle of age differentiation.**

Regarding the first principle, age differentiation, Binet purported that one can differentiate older children from younger children by the former's superior abilities (Binet & Simon, 1905). In employing this principle, Binet investigated tasks that could be successfully completed by 66.7% to 75% of children of specific age groups until he ultimately gathered a set of tasks that an accumulative proportion of children could complete as a function of increasing in age (Binet & Simon, 1905). Consequently, Binet could approximate the mental ability of the child in terms of his or her completion of the tasks intended for the averaged child of a particular age, irrespective of the child's chronological age. This led to the inclusion of the "table of norms" in intelligence tests, which serves as a baseline from which a child's performance on the test is compared to the performance of other children in the same age group (Binet & Simon, 1905; Boake, 2002; Carroll, 2005; Ferrett, 2011; Fletcher & Hattie, 2011; Freeman, 1955; Friberg, 2010; Gottfredson & Saklofske, 2009; Hambleton, 1994, 2001; Kaplan & Saccuzzo, 2013; Owen & Taljaard, 1996). With the principle of age differentiation, Binet concluded that equivalent age competencies of the child could be determined independent of his or her chronological age, which is currently referred to as the mental age (Kaplan & Saccuzzo, 2013).

Following the principle of age differentiation, can put isiZulu-speaking children at a disadvantage when their intelligence is assessed. As it is with children from various cultural backgrounds generally, mastery of certain cognitive skills can be achieved at various age levels. This would depend on their contextual background, and exposure to stimuli that stimulates cognitive development over time. Thus using a tool such as the ISZSP that has cultural and linguistic items with which some isiZulu-speaking children might not be familiar, could result in poor performance and low IQ. This would not necessarily mean that they are not intelligent.

### **2.3.2.2 The principle of general mental ability.**

With the second principle, general mental ability, Binet (1905) expanded on Spearman's (1904) *g* factor to measure distinct elements of intelligence, and argued that general mental ability enters into every kind of activity or task requiring mental effort. Binet (1905) judged the value of any particular task in terms of its correlation with the total score of all the other tasks in the test. Employing the general mental ability principle in test development implied that an individual's intelligence is best represented by a single score (Kaplan & Saccuzzo, 2013). In other words, performance on any task in the intelligence test can be attributed to *g*, which underlies all intelligent behaviour.

Intelligence test developers that emerged after Binet also followed these two principles (Gottfredson & Saklofske, 2009; Kaplan & Saccuzzo, 2013). Lewis Terman (1916) translated the Binet-Simon Intelligence Scale into English and adapted it to the culture of American schools. He renamed the test the Stanford-Binet Intelligence Scale, in which  $g$  is determined by the ratio of the mental age to the chronological age of a child, and results in the metric called IQ (Intelligent Quotient) (Terman, 1916). To obtain the IQ, the chronological age (CA) is divided into the mental age (MA), and the result is multiplied by 100 [ $IQ = (MA/CA) \times 100$ ] (Boake, 2002; Kaplan & Saccuzzo, 2013; Terman, 1916).

Test development and revision after 1970 showed substantial evidence of the contribution from the CHC theory, with the inclusion of at least eight of the nine broad Gf-Gc abilities in intelligence test batteries, and not focusing on a single  $g$  (Alfonso et al., 2005; Kaplan & Saccuzzo, 2013; Olvera & Gomez-Cerrillo, 2011). The inclusion of the Gf-Gc abilities in intelligence test batteries allowed for testers to assess the breadth and depth of a wider range of cognitive abilities in a theoretically and psychometrically defensible manner (Alfonso et al., 2005; Kaufman, 2009; Kaufman, Johnson, & Liu, 2008; McGrew, 2009). From the year 2000, all test revisions and development subscribed either implicitly or explicitly to the CHC theory (Alfonso et al., 2005; Gottfredson & Saklofske, 2009; Kaufman et al., 2008; Schoenberg, Lange, Saklofske, Suarez, & Brickell, 2008; Wechsler, 2003, 2008; Wechsler & Naglieri, 2006). The contribution of the CHC theory to test development still maintained the age differentiation principle in developing intelligence test batteries (Alfonso et al., 2005; Olvera & Gomez-Cerrillo, 2011).

### **2.3.2.3 The contribution of the Wechsler scales.**

Another significant contribution to test construction and development of IQ tests was found in the work of David Wechsler (Alfonso et al., 2005; Dubb, 1971; Gottfredson & Saklofske, 2009; Wechsler, 1939, 1991, 2003, 2008; Wechsler & Naglieri, 2006). With the development of his Wechsler Adult Intelligence Scale in 1939, Wechsler (1939) presented a purely statistical definition of IQ and the IQ scale with a mean of 100 and a standard deviation of 15 instead of mental age calculations. He constructed this based on the application of his clinical skills and experience, as well as his extensive statistical training in construction of the scales for his intelligence tests (Kaufman & Lichtenberger, 1999).

Wechsler defined intelligence as the individual's capability to act purposefully, to think rationally, and to deal effectively with his or her environment (Wechsler, 1939, 1991, 2003).

He posited intelligence as a “multidimensional construct, consisting of both general aptitude and specific abilities, the latter of which are composed of elements which are quantitatively different, yet contribute to general ability as a whole” (Silva, 2008, p. 125). He believed that intelligence should be measured by both verbal and performance tasks, and presented a scale that assessed Verbal IQ (VIQ) and Performance IQ (PIQ), which paralleled the Gf-Gc mental abilities (Gottfredson & Saklofske, 2009; Wechsler, 1939).

The Full Scale IQ was measured (and it still is) by quantitatively comparing the testees' performance on the intelligence test with the average/mean score of the norms for their own age groups (Wechsler, 1939). It was believed that the Wechsler tests provided a pattern of cognitive functioning which yielded not only both the verbal and non-verbal intelligence quotient, but also standardized measures of development for ten different aspects of intellectual functioning (Cattell, 1963; Dubb, 1971; Gottfredson & Saklofske, 2009; Wechsler, 1939).

The challenge in adopting the aforementioned principles for the assessment of intellectual functioning is that they assume that, by a certain age, all children will have had opportunities to learn certain skills and knowledge. Moreover, as these principles focus on biological factors of intelligence, they lead to the development of intelligence tests that assess only the cognitive aspects of intelligence, and ignore the sociocultural aspects.

In the case of the current thesis, following these principles does not take into account the different cultural contexts that isiZulu-speaking children grow up in, which mostly differ from Western contexts. If an isiZulu-speaking child has not had exposure to certain things at a particular age, which lead to failure to demonstrate knowledge expected by intelligence tests, it reflects as deficit knowledge with a low IQ score. I therefore responded to the need to evaluate the cultural and linguistic appropriateness of the ISZSP, which is embedded in the above-mentioned principles, and argues for test development, revision and adaptation that would be suitable for isiZulu-speaking learners.

## **2.4 Constructivist and Social Constructionist Developmental Approaches to Intelligence**

This section discusses the distinction between constructivist and constructionist approaches to the development of intelligence. The current study aimed to demonstrate that caution must be taken when assessing the intellectual functioning of CLD learners as various theories of intelligence exist, and intelligence is conceptualized differently in

various indigenous cultural contexts. The assumptions embedded in some theories of intelligence fail to capture the sociocultural nature of intelligence (Kwate, 2001). Assessment procedures in psychology have been lodged in assumptions of measurement accuracy and scientific expertise (Blake & Pope, 2008). Some psychologists remain steeped in traditional beliefs and practices of objective intellectual assessments, whereas others have begun to take part in postmodern dialogues on constructivist and social constructionist approaches to intelligence (Genovese, 2003; Iversen, Gergen, & Fairbanks, 2005; Lowenthal & Muth, 2008; Sjøberg, 2010).

Much has been written about the distinction between constructivism and social constructionism. Constructivism has been described as having a focus on internal, cognitive processes of individuals, and social constructionism as having a focus on discourse and the joint social activities that transpire between people, firmly located within the performative world of the relational (Liu & Matthews, 2005; Lowenthal & Muth, 2008; McNamee, 2004). The following discussion contrasts the two views in relation to their contributions to the understanding of intelligence and implications for assessment. The aim is to demonstrate the need for adopting an approach that would lead to a culturally fair manner to assess intelligence in isiZulu-speaking children using the ISZSP.

#### **2.4.1 Cognitive constructivist approach to the development of intelligence.**

Constructivism pronounces a theory of both knowing and learning (Lowenthal & Muth, 2008). As a theory of knowing, constructivism is based on the idea that knowledge is constructed individually and does not exist independently of a knower (Bransford, Brown, & Cocking, 2000; Fosnot, 2005). Cognitive constructivism argues that all learning and development involve mental construction. The construction occurs in the mind of the knower as he or she creates and adjusts internal mental structures to accommodate his or her developing stores of knowledge (Blake & Pope, 2008; Bransford et al., 2000; Fosnot, 2005; Lowenthal & Muth, 2008).

The following section discusses cognitive constructivism as inspired by the genetic epistemology of Jean Piaget, whose work mainly focused the internal development of mental structures. Piaget's work has contributed greatly on test construction and intelligence assessment over the years (Blair, 2006; Lautrey, 2002). The implication of using a test that is informed by Piagetian principles to assess isiZulu-speaking children is discussed.

#### **2.4.1.1 Piaget's theory of cognitive development.**

The cognitive constructivist view of intelligence draws on Piaget's developmental theory. Piaget, a French psychologist, developed his theory of knowledge based on ideas derived from biology, such as the process of adaptation, consisting of assimilation and accommodation (Genovese, 2003; Piaget, 1950, 1954). His basic belief was that the development of intelligence and thinking should be understood as the individual's biological adaptation to the external world (Blake & Pope, 2008; Sjøberg, 2010). In the early stages of his career, Piaget had been employed for standardizing intelligence tests, and worked at Alfred Binet's laboratory (Genovese, 2003). He extended Binet's (1905) notion of intelligence and the age differentiation principle. However, while Binet focused on individual differences, Piaget found significance in children's similarities (Blake & Pope, 2008; Dasen, 1984; Sjøberg, 2010). Piaget's theory presents a universal notion on the development of intelligence in human beings (Piaget, 1954; Vygotsky, 1978).

Piaget's constructivism offered a perspective into intellectual development and what children are interested in, and able to achieve, at different stages of their development (Genovese, 2003). He proposed a theory that conceives of intellectual development as occurring in four distinct periods or stages, with distinct intellectual operations (Piaget, 1950). This theory describes how children's ways of doing and thinking evolve over time, and how their cognition develops in predictable ways (Genovese, 2003). Fundamental to Piaget is the notion that children are able to resolve particular problems only at specific ages, and these problems can be structured into a developmental sequence that defines universal distinct periods of intellectual development (Lowenthal & Muth, 2008; McNamee, 2004; Piaget, 1950, 1954).

According to Piaget (1950), all children progress in the same order through four stages in cognitive development, namely, sensorimotor, pre-operational, concrete, and formal. He professed that children in the sensorimotor stage, from birth to approximately 2 years, do not reason the way adults do, but learn by using their five senses, object permanence (i.e., viewing objects as permanent entities that continue to exist even when they cannot be seen), and actions that are goal-directed (Iversen et al., 2005; Lowenthal & Muth, 2008; Piaget, 1950; Sjøberg, 2010). During the second stage, the pre-operational stage, from 2 years through to 7 years, children are able to do one-step logic problems, develop language, continue to be egocentric, and complete operations (Piaget, 1950). The following stage is the concrete operational stage, from 7 years to 11 years, which is characterized by logical problem solving and inductive reasoning. From age 12 to

adulthood, children enter the formal operations stage, which allows them to think logically and show lingering egocentrism (Piaget, 1950).

Constructivism from a Piagetian standpoint focuses on the intrapersonal process of individual knowledge construction (Liu & Matthews, 2005; Sjøberg, 2010). Similar to the Cartesian view of the self, it focuses on the mind. It views intelligence as residing within an individual, located and isolated in the mind, emerging and finalized through different ages and stages of development (Bruner, 1986; Genovese, 2003; Lowenthal & Muth, 2008; Piaget, 1954). The quintessence of this view of intelligence is the idea that children must individually discover and transform complex information, and knowledge is not directly transmittable from person to person – it is rather individually and distinctively constructed, with the social environment engaged merely as a stimulus for individual cognitive conflict (Blake & Pope, 2008; Dasen, 1984; Genovese, 2003; Iversen et al., 2005; Liu & Matthews, 2005; Lowenthal & Muth, 2008). This notion of individual construction of knowledge parallels the concept of a Cartesian self (Liu & Matthews, 2005).

The constructivist view supports the psychometric view and measurement of intelligence, where innate cognitive abilities are believed to be the ideographic genetic makeup of intellectual functioning (Iversen et al., 2005; Lowenthal & Muth, 2008; McNamee, 2004). As Piaget worked with Binet in standardizing intelligence tests (Blake & Pope, 2008; Genovese, 2003), it is not surprising that their work shares similarities in the use of the age differentiation principle. For Piaget, intelligence develops within the child at different stages (Piaget, 1950), hence for Binet, the assessment of intelligence should involve an evaluation of the child's mental ability approximated for the averaged child of a particular age group (Binet & Simon, 1905; Boake, 2002; Carroll, 2005; Fletcher & Hattie, 2011; Friberg, 2010; Kaplan & Saccuzzo, 2013). This indicates the Piagetian influence in the development of psychometric tests for intellectual functioning.

The implications of constructivist views of the development of intelligence for psychological assessment resonate with those mentioned above in relation to the traditional theories of intelligence. The assumption that intelligence develops solely within the individual during universal developmental stages has been challenged, as it does not hold true for all children in various cultural contexts (Iversen et al., 2005; Ormrod, 2003); yet, intelligence tests are developed on the basis of Piagetian constructivist views. To date, children's intellectual functioning is assessed using tools that only permit the assessment of biological mental abilities as influenced by the CHC theory, and to obtain the IQ score,



Piaget and Binet's principle of age differentiation is still followed. This means that the assessment process is approached as measuring the child's mental abilities that develop while he or she individually constructs new knowledge and meaning (Blake & Pope, 2008; Boake, 2002). The psychologist focuses on assessing the Gf-Gc mental abilities, and the role of history, culture and social environment are not considered as contributors to the child's intellectual functioning (Akhutina, 2003; Murphy, 2007; Parton, 2003).

The current study argues that approaching the process of psychological assessment in this manner leads the psychologist to adhere strictly to the standardized procedures that are stipulated in the test manual in order to obtain the IQ score for the child, with no flexibility or room to engage socially/relationally with the assessed child. I argue that the assumptions embedded in the intelligence tests, such as the development of certain mental abilities at predictable stages, as well as the mastering of certain tasks at expected ages are imposed on the isiZulu-speaking child whose intellectual development is stimulated differently compared to what accepted in the Western view. For example, studies by Graig and Miller (1984) and Craig (1985) investigated the dyadic instructional patterns between Zulu mothers and their pre-school children compared to American mothers and their pre-school children in Wertsch's (1984) study. They explored these instructional patterns in relation to how they stimulate cognitive development. Graig and Miller (1984), and Craig (1985) found that the dominant instructional processes followed a culturally derivative pattern, whereby Zulu mothers explained how children are taught in their culture. For example, they expressed that for Zulus, a child has to be taught *and* shown how they are expected to behave or do things, such how to hold the hands in a certain way when accepting something from an adult (Craig, 1985). Evidently, in both studies, Zulu mothers mostly demonstrated instructional methods whereby children were expected to imitate what their mothers modelled. They appeared to be teaching their children to do tasks with them, while the American mothers in Wertsch's (1984) study seemed to be teaching their children to do task without them (Craig, 1985; Craig & Miller, 1984). This suggests that there are different cultural factors that facilitate cognitive development. When assessing isiZulu-speaking children with tests that are informed by Western theories of intelligence, it is highly likely that their performance would be poor and deemed deficient.

Moreover, Levert and Jansen (2001) conducted a study that investigated South African Black bilingual learners' performance on cognitive tests when assessed in a Lurian-Piagetian approach. Their findings suggested non-attainment of Piagetian concepts at

the age range posited in Piaget's theory by Black South African bilingual learners. The achievement was at various age levels. This finding was the same for children who were identified by their educators as having learning problems and those identified as not having learning problems (Levert & Jansen, 2001). It can be said that development is a universal process for all humans, but its manifestation might not be during the exact age range for all, as prescribed by Piaget. It might vary in relation to the social and cultural contexts of their manifestation (Kamin, 2006; Muthivhi, 2010).

This study argues, therefore, that the ISZSP holds Piagetian principles owing to which isiZulu-speaking learners' intellectual functioning may be misinterpreted. The constructivist view of intelligence and how it develops differs greatly from the African indigenous view – where intelligence is conceptualized as a social and relational construct. It should follow then that for an African isiZulu-speaking child, the assessment process and tools should allow for assessment to take the form of a relational activity, with both the psychologist and the assessed child engaging socially in the process of constructing meaning.

#### **2.4.2 Social constructionist approach to the development of intelligence.**

Social constructionism is a perspective which posits that human life exists as it does owing to historical, cultural, social and relational influences (Gergen, 1985). This perspective does not reject the influence of genetic inheritance to human development, but it focuses more on the social influences on communal life (Cojocaru, Bragaru, & Ciuchi, 2012; Galbin, 2014). Social constructionism has been criticized for being anti-realist and for its claim that it does not provide the truth (Bury, 1986; Burr, 2003; Craib, 1997; Schwandt, 2003; Sismondo, 1993). The claim that there is no single truth has led to arguments that question the usefulness of social constructivist postulations given that the multiplicity of accounts produced can each claim legitimacy and there is no reason to prefer one account to another (Cojocaru et al., 2012; Galbin, 2014).

Social constructions have countered this argument and maintained that the criticisms aim to confuse epistemology with claims about ontology; and the criticisms are a fundamental misunderstanding of the philosophy that underpins social constructionism (Amineh & Asl, 2015; Andrews, 2014; Berger & Luckman, 1996). Social constructionism does not make ontological claims, but it makes epistemological claims pertaining to the social construction of knowledge (Andrews, 2014; Berger & Luckman, 1996; Gergen, 1985). Hence, this study took a cautious approach to a social constructionist view of intelligence,

and proposed a dialogical view of human functioning (cf.: Chapter 3), which argues that while there is no single truth and it is possible to arrive at an intersubjective agreement through dialogue (Marková, 2003).

In contrast to constructivism, social constructionism views the development of intelligence as constructed in social interactions through language, not separate from knowledge production and meaning-making processes, as well as the role of language in these processes and the cultural context in which they occur (Amineh & Asl, 2015; Iversen et al., 2005; Levine, 1997; Lowenthal & Muth, 2008; Kuhn, 1962; Parton, 2003; Potter, 1996; Vygotsky, 1978, 1986).

Rather than focusing attention on innate mental processes, social constructionism foregrounds the ways in which people create and co-create realities in which they live (Parton, 2003). Social constructionism locates the process of construction in cultural and social interactions, not excluding language; rendering meaning-making as a relational activity (McNamee, 2004). Kuhn (1962) argued that for knowledge production and meaning-making processes to occur, there have to be people in relationships as opposed to individual minds. In these relationships, during social interaction, the rules of language provide the grounds for what can be intelligibly put forward as knowledge (Amineh & Asl, 2015; Barthes, 1967; Derrida, 1976; Iversen et al., 2005; Kuhn, 1962; Potter, 1996; Vygotsky, 1986). The language-in-interaction circumscribes people's ability to reason with others and make sense of their world (Bakhtin, 1981; Iversen et al., 2005). The discussion below will focus on a Vygotskian perspective of social constructionism. This perspective pays attention to the ways in which knowledge is historically located and embedded in cultural values and practices. Emphasis is placed on the dialectal traditions that support, sustain and determine what can be known within cultural parameters (Parton, 2003; Vygotsky, 1986) and synchronously, professional practices such as psychological assessment (Iversen et al., 2005; Levine, 1997).

#### **2.4.2.1 Vygotsky's sociocultural theory of human development.**

The social constructionist view to cognitive development draws largely from the work of Lev Vygotsky, a Russian psychologist, who developed the sociocultural theory of human development. For Vygotsky (1978, 1986), the relationship between the social context and the individual in the historical processes of development is one of dialectal interaction and functional unification. From this view, the mind is not seen as autonomous in the social and cultural world (Liu & Matthews, 2005; McNamee, 2004). In other words, mental functioning

in the individual cannot be understood without examining the social and cultural processes from which it derives (Wertsch, 1998; Wertsch & Tulviste, 1992).

Vygotsky (1986) added that the social interaction between the child and competent others such as adults, parents, teachers, siblings or peers is fundamental to the formation and growth of cognitive skills, which are mediated through these interactions. Cultural and semiotic mediation are crucial processes in the development of intelligence and other higher mental functions (Vygotsky, 1986). Semiotic tools are not technological and they are not material. They are abstract, psychological and symbolic (Wells, 2007). Cultural tools, are the physical, communicative and representational means by which a given society is characterised, are mediated to the child. The appropriation of these tools by the child, reflected in his or her intellectual functioning, is the outcome of such mediation (Akhutina, 2003; Bakhtin, 1981; Hennig & Kirova, 2012; Kozulin & Presseisen, 1995; Thompson, 2013; Vygotsky, 1981, 1986). Therefore, an African child assessed with reference to a Western framework and tools, is deprived of his or her own cultural tools to navigate the task.

#### *2.4.2.1.1 Vygotsky's general genetic law of cultural development.*

Vygotsky's philosophy about the social origins of mental functioning can best be found in his general genetic law of cultural development:

Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition... [I]t goes without saying that internalization transforms the process itself and changes its structure and functions. Social relations or relations among people genetically underlie all higher functions and their relationships (Vygotsky, 1981, p. 163).

It can be deduced that the view of intellectual functioning that is presumed by Vygotsky's general genetic law of cultural development differs from the Western conceptions of intelligence. As an alternative to beginning with the postulation that intellectual functioning occurs primarily and only within the individual child, this law assumes that mental functions develop as social activities, between people (between the child and his

or her peers; between the child and adults), on the interpsychological plane (Wertsch & Tulviste, 1992). Intrapsychological functioning is then derived from interpsychological functioning; it develops through the mastery and internalization of social processes; it is internalized to become part of the child's world and subsequently, it guides the child's behaviour (Vygotsky, 1981; Wertsch & Tulviste, 1992).

On the interpsychological plane, the development of intellectual functioning is socially constructed and mediated with cultural and semiotic tools through the process of scaffolding (Vygotsky, 1978, 1981). Scaffolding refers to the type of interaction between the child and a more capable and more knowledgeable person (adult/peer), during which the child is provided with temporary guidance and support in carrying out tasks (Bruner, 1983, 1990; Leong, Bodrova, Hensen, & Henninger, 1999; Vygotsky, 1981). The ultimate goal of scaffolding is to cultivate an independent, self-regulated child, and this is achieved by gradually decreasing the amount of guidance, support and assistance provided by the more knowledgeable person when the child begins to attain more independence and knowledge (Akhutina, 2003; Leong et al., 1999; Vygotsky, 1978, 1981). Scaffolding works successfully when the child is given the space to tackle the task at hand with the more capable other intervening only when the child is unable to manage the requirements of the task. In this manner, scaffolding allows both the child and the more capable other to construct and co-construct meaning (Bruner, 1983; Iversen et al., 2005; McNamee, 2004; Parton, 2003; Thompson, 2013; Wertsch & Tulviste, 1992).

Semiotic mediation that occurs during scaffolding is a critical factor in the sociogenesis of higher mental functions. Vygotsky purported the concept of semiotic mediation to construct a theory of human development that would give a significant place to the intellect while avoiding Cartesian dualism (Wells, 2007). He posited that cognition is stimulated through the use of tools to mediate activity. With regard to mediating artifacts, Vygotsky (1978) made a distinction between "tool" and "sign"; a distinction that is reliant on the context and form of the activity that is mediated. Tools can be artificial, technological and concrete stimuli that are socially constructed by humans. Mediation by tools alters the nature of human performance; it enables mental functions to reach higher levels, making possible achievements that would otherwise have remained impossible (Vygotsky, 1978; Wells, 2007). Signs, mainly linguistic signs, are psychological, abstract and symbolic. They are semiotic artifacts that shape the way of life of a culture and enable people to exist and think together (Daniels, 2014; Vygotsky, 1978; Wells, 2007). Through semiotic mediation, use of sign systems cultivates the structure of mental

functions. "The use of signs leads humans to a specific structure of behaviour that breaks away from biological development and creates new forms of culturally based psychological processes" Vygotsky (1978, p.40).

Semiotic activities, therefore, are acts of meaning, which can be interpreted by various semiotic styles, one of which is language. Vygotsky (1978; 1981) devoted considerably greater importance to language such that semiotic mediation has come to be understood as mediation by means of linguistic signs. He posited that language significantly maximized qualities that are essential for something to function as a psychological tool, capable of mediating the development of the mind (Donaldson 1992; Deacon 1997; Vygotsky, 1981). He argued that language has the ability to construe communicable human experiences and articulate multiple voices of a culture, which is central to his general genetic law of cultural development (Vygotsky 1981). Thus, language plays the principal role in mediating the emergence of intelligence and the construction of knowledge. It is for this reason that translated intelligence tests, such as the ISZSP, are periodically evaluated for cultural and linguistic appropriateness. The evaluation would ensure the tests' relevance and appropriate assessment of children's intellectual functioning.

All scaffolding and mediation occur in what Vygotsky (1986) termed as the Zone of Proximal Development (ZPD), which is defined 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 adult guidance or in collaboration with more capable peers (p. 86).

He developed this concept to consider the problems of the measurement of Binet's mental age and the prediction of future development and learning (Vygotsky, 1978). For Vygotsky (1978; 1986), the ZPD is a dynamic alternative to the models of individual ability used in conventional psychological assessment. Instead of assessing what an individual child can do unassisted, Vygotsky postulated assessing what an individual was capable of with the assistance of a more capable adult or peer in the ZPD (Thompson, 2013).

From this view, during the assessment of intellectual functioning using the ISZSP, scaffolding should take place in the ZPDs of the assessed isiZulu-speaking children This would be where

culture and language play a crucial role in the isiZulu-speaking children's ability to comprehend instructions, formulate and verbalise responses, or otherwise complete the given tasks or provide appropriate responses (Bakhtin, 1981; Rhodes, Ochoa & Ortiz, 2005). Therefore, assessment and the enhancement of intelligence of children during assessment should be the outcome of sociocultural interaction and mediation. However, with the current construction of the ISZSP, mediation is impeded for Zulu children as there is a disconnection between their social worlds and the testing environment and language use. If Vygotskian views on intellectual development are not taken into account, isiZulu-speaking children would be deprived of a mediation process that would help them understand what constitutes an appropriate response in accordance with indigenous theories of intelligence that are rewarded in Zulu communities.

Overall, the key characteristic for the assessment of intellectual functioning derived from Vygotskian social constructionism is the social interaction which occurs within an assessment setting, which is justified from a sociocultural conception of intelligence in which the possibility of change is a defining feature (Kozulin & Presseisen, 1995; Murphy, 2007; Richter, 1992; Vygotsky, 1986). This view is similar to the Eastern/Asian and African conceptions of intelligence discussed above, where social relationships are valued, as well as the belief that intelligence is socially distributed and emergent during the course of a relational, shared activity. The assessment situation from this view, therefore, is not an individual activity, but a process constructed between the psychologist and the assessed child, and their contextual lifeworlds and experiences through the use of cultural mediation tools (Hennig & Kirova, 2012; Vygotsky, 1986). According to Vygotsky (1978, 1986), language is the mother of all cultural mediation tools. For learning to occur, and for the successful development of intelligence, language is a vital mediating tool (Vygotsky, 1986).

The social constructionist approach leads us to note that in the assessment situation, knowledge is bound by cultural assumptions, historical precedents and sociocultural rules, and the language forms available to the psychologist and to the assessed child will constrain and influence the ways in which each make sense of the assessment process (Iversen et al., 2005; Patterson, 1997; Witkin, 1990, 2001). The challenge during assessment is that the vocabulary of the psychologist reflects a specialized way of understanding and valuing (Greenfield, 1997; Holland, 2000), which is based on the Western epistemology of what constitutes intelligence. This is seldom the way of understanding and valuing that a

typical African, isiZulu-speaking child would be familiar with (Hennig & Kirova, 2012; Milner & O'Byrne, 2002).

To counter this, the psychologist, together with the child, must construct and co-construct meaning together, mediating the process through language that is intelligible to both in the child's ZPD (Iversen et al., 2005; Levine, 1997; Vygotsky, 1986). The goal of a psychologist as an assessor should be to facilitate the child's participation in the assessment tasks – through the use of language – and identify what cognitive skills need developing and strengthening in a child, the cognitive requirements of given types of task, and advising upon and supporting the teaching of the child (Deutsch & Reynolds, 2000; Lacroix, 2008). The assessment instrument must not be seen as a tool for finding deficits in the intellectual functioning of the child, but as an instrument for meaning-making and for the social construction of knowledge (Iversen et al., 2005; Levine, 1997; Rhodes et al., 2005).

#### *2.4.2.1.2 An abridged critique of Vygotsky's theory.*

Building from Vygotsky's sociocultural theory, the current study notes that Vygotsky focused on one-on-one contexts and on small group interactions. Although there is emphasis on historical, cultural and social contributions to knowledge generation and meaning-making, Vygotsky did not consider the interactions between the individual and society at large, including ideology, for instance, the mediatory influences of social languages and speech genres. The study therefore argues for a Bakhtinian dialogic view of human functioning, and that the assessment process should be constructed in a manner that would favour a dialogic and collaborative orientation, with an emphasis on the active negotiation of possible realities (this is further discussed in Chapter 3) (Akhutina, 2003; Bakhtin, 1981; Iversen et al., 2005; Miehs & Moffatt, 2000).

This means that when administering the ISZSP, the language in the tool must be appropriate for isiZulu-speaking learners. The use of words or ways to describe specific concepts must be understood by both the psychologist and isiZulu-speaking learners in order to facilitate dialogue. It is thus important to evaluate whether the language used in the ISZSP is appropriate in administering it, and in enhancing the development of intellectual functioning in learners. In doing this, the study will explore how psychologists facilitate the assessment process in the context where the language in the ISZSP is incongruent with the linguistic background of CLD learners.



## **2.5 The Review of the Construction of the ISZSP**

The thesis now looks into the construction of the ISZSP in relation to some of the literature and theories deliberated above. The theoretical basis of the ISZSP will be discussed first, and then used to critically analyse the contents of the test. As explained in Chapter 1, the ISZSP is a Zulu translation of a Xhosa adaptation of the NSAIS. Owing to the absence of the Part I manuals for the ISZSP and the NSAIS, for the description of the subtests of the ISZSP, Part I manual of the SSAIS (Madge, 1970) will be adapted accordingly. The Part II manuals of the ISZSP (Landman, 1988b) and the NSAIS (Madge, 1970) will also be used as sources of reference or confirmation where necessary. The purpose for this review of ISZSP is to highlight some of the gaps in relation to its cultural and linguistic construction.

### **2.5.1 The theoretical foundation of the ISZSP.**

The ISZSP is an intelligence test administered to individual children, and it was constructed based on the Wechsler model of intelligence tests. It follows that the theoretical framework of the ISZSP is of Western origin. This is also evident in the biological and neurological nature of the intellectual abilities assessed in each of the subtests. As mentioned in section 2.3.2.3 above, Wechsler defined intelligence as the ability of a person to act purposefully, think sensibly, and deal efficiently with their environment (Wechsler, 1939, 1991, 2003). This demonstrates that the ISZSP does not assess the intelligence of isiZulu-speaking children as it is conceptualized in indigenous African contexts. The author of this thesis is cognisant of the recent changes in the lifestyle of African families, as some of them are getting modernized through TV, and that it might be argued that the Western account of intelligence could be appropriate. However, despite modernization, some of the Western values and assumptions in intelligence tests still remain. These are assumptions such as individuality, as opposed to indigenous African values and assumptions, such as communality and cognition as a socially constructed, shared activity.

The ISZSP is permeated and imbued with Western assumptions of what constitutes intelligence. It is not infused with the African value of social interconnectedness and mutual engagement in shared activities (Cocodia, 2014; Lima et al., 2002; Sternberg, 2004; Sternberg et al., 2001; Super & Harkness, 1993; Valencia & Suzuki, 2001; Wilson & Mujtaba, 2008). The construction of the ISZSP and its standardized administration emphasizes individualism and hinders social interconnectedness. Like the WISC editions, the ISZSP imposes some Western values and assumptions on Zulu children and celebrates their

capacity to think and act in a Westernized manner (Kwate, 2001). In the sections that follow, selected subtests of the ISZSP are critically evaluated and discussed in relation to values such as abstract thinking, speed and reaction time, that form the cornerstone of the test. The discussion further illustrates why a test that adheres to such values is problematic for children of African descent, even if they participate in different cultural systems (including the Western).

### **2.5.2 The subtests of the ISZSP.**

The ISZSP is a point scale test that was constructed to adopt Wechsler's model of the VIQ Scale and the PIQ Scale and to use Wechsler's standard deviation IQ (Dubb, 1971; Landman, 1988b; Madge, 1970; Wechsler, 1939). There are five subtests on each of the scales. The Verbal Scale subtests are: Vocabulary, Comprehension, Similarities, Problems and Memory. The Performance Scale subtests are: Pattern Completion, Blocks, Absurdities, Form Board, and Mazes (Landman, 1988b). The sequencing of the scales and their subtests followed the ordering of the Thurstone's PMA test, which constructed the test consisting of homogenous items that measure the same factor, arranged in rank order of difficulty (Madge, 1970; Thurstone & Thurstone, 1941). The first scale presented in the ISZSP is the Verbal Scale, followed by the Performance Scale (Landman, 1988b).

The first subtest of the ISZSP is **Vocabulary**. The items of this subtest are five cards with four pictures in each of them. The assessed child is required to indicate which of the four pictures best illustrates the meaning of a given word. The ISZSP has 10 stimulus words for each card, whereas the NSAIS and the SSAIS have six stimulus words per card, and the SSAIS-R has 10 stimulus words (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). This test assesses the child's verbal intelligence and verbal learning ability. Performance on this test is indicative of language development and language use, in which long-term memory and concept formation play an essential role. This test is based on the assumption that the quality and degree of a person's vocabulary are a good measurement of his or her intelligence (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

Test items that assess the child's vocabulary based on predetermined prescriptions of which responses would mean that the child is intelligent, have been criticized for not being good measures of intelligence owing to the shift of spoken language and the context-specific nature of words (Amineh & Asl, 2015; Bakhtin, 1981; Holquist, 2002; Sternberg, 1987). For this reason, they are not free from bias and cultural unfairness when used for

African populations (Carter et al., 2005; Greenfield, 1997; Kwate, 2001), especially in cases where translated concepts in the test do not have an equivalent in the target language (Cormier, Hansen et al., 2011; Cormier, McGrew et al., 2011; Oliden & Lizaso, 2014). Another critique has been that following the Wechsler model for the vocabulary subtest puts too much emphasis on the quantity of the knowledge that the child has, as opposed to the quality of knowledge (Kwate, 2001); and it deems the vocabulary subtests as "tacit knowledge test" (Gottfredson, 2003, p. 353).

The same applies to the Vocabulary subtest of the ISZSP. It assumes that the stimulus words for each of the cards should be known universally by all isiZulu-speaking children in South Africa. Naturally, this is not the case due to regional dialectal variations of isiZulu, and the fact that vocabulary is learned from context. This assumption could create bias in the verbal test items, and lead to unfair assessment, which would yield low IQ scores for isiZulu-speaking children (Calteaux, 1996; Cook, 2013; Downing, 2001; Grégoire et al., 2008; Khumalo, 1981, 1982; Labov, 2001; Magagula, 2009; Mufwene, 2014; Ngcobo, 2013). Grégoire et al. (2008) warn that when the vocabulary has a large number of biased items, it invalidates the subtest. Biased items in the ISZSP Vocabulary subtests would be stimulus words that are ancient and are no longer in use (e.g., *isilimela* meaning galaxy), or words that are alien in the dialect of a particular region (Grégoire et al., 2008; Mdlalo, 2013).

**Comprehension** is the second subtest of the ISZSP. The Comprehension subtest of the ISZSP has 16 items; the NSAIS and the SSAIS have 10, while the SSAIS-R has 15 items for this subtest (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). The child is asked a series of questions that evaluate his or her level of moral and common sense, as well as general knowledge about conservative principles of behaviour, social situations and customs of everyday life (Kwate, 2001; Madge, 1970; Sattler, 1992). Assessing the child's understanding shown for various social situations is believed to represent his or her intellectual functioning. It is also assumed that social adaptation and social judgment reflect a person's ability to reason logically (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

It is most likely that children would give different responses to these items because of the different cultural, economic and social contexts they grow up in, which might not be recorded in the scoring rubric as a correct answer (Beaujean, 2015; Gottfredson, 2003; Grégoire et al., 2008; Mdlalo, 2013). Additionally, research has found that some translated versions of the comprehension subtest are evidence that test adaptation is not only a

linguistic issue, but a broader cultural one; it is therefore considered fair to introduce new items that would be contextually relevant for the children for whom the test is adapted, instead of translating and keeping items that would put them at a disadvantage (Grégoire et al., 2008). For example, item 17 asks: “*Zakhiwelani izindlu zibe yizitezi ezinde emadolobheni athile?*” [*Why are some buildings in some cities very high?*] (Landman, 1988b, p. 13). This question assumes that all Zulu children know *izitezi* (high buildings); in reality, unlike Zulu children from townships and urban areas, the likelihood is very high that most children who reside in rural areas do not know, and have never seen, a high building. Their responses might be deemed wrong. This item is therefore one of the items in the ISZSP that, according to literature, could be deduced as culturally biased.

The Comprehension subtest is followed by the **Similarities** subtest, with 16 items. The subtest is called **Verbal Reasoning** in the NSAIS and SSAIS and has 10 items in each test; it is called **Similarities** in the SSAIS-R with 15 items (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). The similarities subtest assumes that logical and abstract reasoning, verbal concept formation, and long-term memory reflect a child's intellectual functioning. It is perceived that the ability to perceive similarities between dissimilar objects and conditions, and to form concepts on the basis of the similarities is an important aspect of general intelligence (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

The subtest requires the child to discern the relationship between increasingly difficult pairs of words, which involves the abstracting of logical relationships between objects and ideas. To succeed in this subtest depends on the child's ability to distinguish between essential and superficial similarities, to generalize and to think abstractly (Landman, 1990). Abstract thinking as opposed to concrete thinking is one of the values of Western cultures (Beaujean, 2015; Carroll, 2005, 2012; Kwate, 2001) that are contained in the ISZSP. Contrary to the Western epistemology, literature asserts that the African epistemology does not attach less value to concrete thinking. Hevi (2004) stated that indigenous Africans have been affirmed as holistic thinkers, who prefer to see how things are interconnected and relate to each other and how those objects can be engaged to fulfil tasks. From his case studies, Casinader (2014) found that for the African epistemology, concrete and abstract thinking are equally valued as co-existing and complimenting each other. This is based on the African people's approach to life, which is influenced by socio-historical and present contextual factors. From an African epistemological point of view, this way of thinking does not reflect lower levels of intelligence (Casinader, 2014; Hevi, 2004).

The fourth subtest is **Problems**. The ISZSP has 25 items for this subtest. The NSAIS and SSAIS both have 15 items, and the SSAIS-R has 20 items in the Problems subtest. The items of the Problems subtest are verbally formulated mathematical problems. In the ISZSP, 15 items are presented orally and the final 10 items are presented to the assessed child both verbally and written on cards (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). Each item can only be repeated once. This subtest assesses the child's numerical reasoning. It incorporates fundamental logical reasoning, abstract thought and mental attentiveness. The test supposes that the ability to solve number problems is an indication of general intelligence (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). The psychologist administering the ISZSP is required to adhere strictly to the time limit for each of the items, with timing beginning after the initial presentation of the item to the child (Landman, 1988b). The psychologist also has to instruct the child to strictly complete the orally presented mathematics problems quickly in his or her head, without the use of pencil, pen or paper or any tool that they can count with (Landman, 1988b).

This demonstrates the infusion of Eurocentric values and modes of doing which, as Greenfield (1997) points out, get transported into translated tests. Indigenous African ways of knowing and doing extend from the individual to others, and to their sociocultural environment (Beaujean, 2015; Hennig & Kirova, 2012). Similar to Vygotsky's viewpoint, interactions and styles of communication for Africans are characterized with constant social engagement that is not isolated from the use of cultural mediation tools and artefacts (Akhutina, 2003; Bakhtin, 1981; Hennig & Kirova, 2012; Liu & Matthews, 2005; McNamee, 2004; Thompson, 2013; Vygotsky, 1981, 1986; Wertsch, 1985, 1998; Wertsch & Tulviste, 1992). Therefore, during the administration of the ISZSP, expecting an African Zulu child to function solely in the mind without any form of mediation would most likely be in contradiction to African ways of doing.

A study by Grégoire et al. (2008) found that when adapting and translating intelligence tests some items have to be modified or revised at a later stage because of economic and socio-political contextual changes that occur. This would be the case with the ISZSP, which at the time of completion of the current study, had not been evaluated for contextual relevance in 26 years. For example, Item 4 of the Problems subtest asks: "*Uma uPeter enginika amasenti amane ngibe nginayisithupha ekhukhwini, sengina mangaki esewonke?*" [If Peter gives me 4 cents and I have another 6 cents in my pocket, how many cents will I have then?] (Landman, 1988b, p. 27).

The challenge with this item at the present day is that because of the economic and financial state of the country, some categories of coins have been phased out. The South African Mint and the South African Reserve Bank stopped minting and circulating 1 cent and 2 cent coins on 31 March 2002, and the minting of 5 cent coins stopped on 01 April 2012 (South African Government News Agency, 2012; South African Reserve Bank [SARB], 2002). This was consistent with the decision that was taken by the Cabinet in July 2000 – that these coins should be withdrawn from circulation because the high inflation rate over the years had made them practically worthless. The cost of producing the coins had been exceeding their face value, and their continuous use put a great administrative burden on the country (SARB, 2002). The country still has 10 cent, 20 cent and 50 cent coins. For South African children, including isiZulu-speaking children, who were born during and/or after the years in which the minting of these coins ceased, it is not possible to have 4 cents and 6 cents that the above-mentioned test item refers to.

The next subtest in the ISZSP, Test 5, is **Memory**. For this subtest, the psychologist reads a story to the assessed child, who is required to immediately repeat what he or she remembers from the story. The story is 99 words long in the ISZSP; in the NSAIS and the SSAIS it has a total of 95 words for both tests, and there are 111 words in the SSAIS-R (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). Short-term auditory memory is assessed by this test. The Memory test uses meaningful verbal learning matter to measure an individual's capacity to pay attention in a fairly simple situation. The assumption is that logical memory is one of the aptitudes of which a certain minimum is required at every level of intellectual functioning (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

Studies looking into the use of subtests such as Memory have found that "children can store more short words than long words in their short-term memory because speech-based information is held in memory through an articulatory control process based on inner speech" (Grégoire et al., 2008, p. 510). This is dependent on the linguistic context and background of the child, and the amount of exposure to and use of the words in the Memory subtests. For successful recall, incoming information is matched with previously learned information from long-term memory. For new items, opportunities for repeated rehearsal of new knowledge is necessary for future successful recall (Grégoire et al., 2008; Schutte, 1998). This implies that if an isiZulu-speaking child is not familiar with some of the words in the Memory subtest of the ISZSP, he or she would not recall them immediately, and that would affect his or her IQ score.

The sixth test is **Pattern Completion**, with partly completed patterns that the assessed child has to complete. The subtest has four practice examples and 24 items for the ISZSP, 12 items for the NSAIS and the SSAIS, and 15 items for the SSAIS-R; there is a time limit for each item (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). The Pattern Completion subtest is a non-verbal measure of processes essential to logical thinking. This test assesses the child's visual perception, visual orientation, concrete reasoning, concept formation, concentration and processing speed. The assumption is that reasoning by means of analogies reflects general intelligence (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

Again, for this subtest, familiarity with the test items is important for fast completion of the test, which emphasizes the Western value of time as an aspect of intelligence. Depending on exposure, some isiZulu-speaking children might not be familiar with the art in the items of the Pattern Completion subtests, consequently, they might not complete the task in good time. As discussed above, the indigenous African epistemology values slow, contemplative reflection as opposed to speed and reaction time (Durojaiye, 1993; Wilson & Mujtaba, 2008; Wober as cited in Berry & Dasen, 1974). This is not to say speed is not valued altogether. This assertion is task specific, i.e., the emphasis on slow, deep and considered thought would be mostly encouraged for academic (cognitive) tasks (Wilson & Mujtaba, 2008). There would be some contexts where speed would be valued such as in sports, and in pressing/urgent problem solving tasks.

**Blocks** is the next subtest in the order. The subtest presents designs on cards, which the child has to construct with blocks. The child is required to complete each item within the prescribed time limits. There are three practice examples and 16 items for the ISZSP, eight items for the NSAIS and the SSAIS, and 15 items for the SSAIS-R (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). Non-verbal intelligence and non-verbal problem-solving skills are assessed in this subtest. Non-verbal concept formation, perceptual organization, spatial visualization and orientation, visual-motor coordination, concentration, and abstract conceptualization are also measured in the Blocks subtest. It is assumed that the capacity to analyse, synthesize and copy an abstract two-dimensional geometric pattern is a valid measure of general intelligence (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

According to Sattler (1992), the Blocks subtest assesses the capacity to learn an unaccustomed task; additionally, the speed and precision with which the child performs is used as a measure of his or her intelligence. This is another subtest in the ISZSP that emphasizes the Western view of the importance of time and reaction speed as constituting intelligent behaviour. The timed conditions are incongruous with the African notion of time (Kwate, 2001; Wilson & Mujtaba, 2008), and this would affect the interpretation of a Zulu child's performance on the Blocks subtest of the ISZSP.

Subtest number eight is **Absurdities**; it is called **Missing Parts** in the SSAIS-R. In this subtest, the child is required to identify and indicate absurdities in a picture. Each item of the Absurdities subtest is timed. For the ISZSP, there are 18 items; the NSAIS and the SSAIS each have 15 items; and the SSAIS-R has 20 items (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). The subtest measures contact with reality, knowledge and comprehension of familiar situations. It is assumed that general intelligence is determined by the visual comprehension and detailed perception of familiar objects and situations (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

In the Absurdities subtest of the ISZSP, the testee's ability to recognize the presented object, appreciate its incompleteness or absurdity or determine the essential missing part is assessed (Kwate, 2001; Sattler, 1992). The testee's intelligence is determined by his or her ability to successfully identify the absurdities (Landman, 1988b). The same assumption applies to similar subtests of similar assessment tools (Sattler, 1992). Kwate (2001) argues that the testee's ability to notice the absurd or missing details cannot necessarily be considered as intelligent behaviour. He further asserts that to the African child, the object presented seems ordinary, and to "appreciate its incompleteness is an incongruous enterprise" (Kwate, 2001, p. 229). The continued use of the Absurdities subtest in the ISZSP could result in unfair conclusions regarding the cognitive abilities of isiZulu-speaking children.

The next subtest of the ISZSP is **Form Board**. This consists of a board containing six figures, each of which is constructed out of three or four loose, coloured pieces. This subtest is constructed in the same manner for the NSAIS, SSAIS and the SSAIS-R (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970). The Form Board subtest measures visual perception, visual organization, visual concept formation, visual-motor coordination, and the ability to see the underlying relations between objects. This subtest assumes that the



synthesis of parts into an organized, cohesive whole constitutes a valid criterion of general intelligence (Landman, 1988a, 1988b, 1990, 1994; Madge, 1970; Madge, 1970).

The Form Board is the final subtest in the NSAIS and the SSAIS. Under timed conditions, the testee is instructed to assemble each of the six figures using the pieces of a corresponding colour. The arguments as discussed above hold even for this subtest. For a Zulu child, successful completion of the tasks of the Form Board is influenced by factors such as familiarity with or exposure to the test items, as well as the time limits of the subtest (Grégoire et al., 2008; Kwate, 2001).

The final subtest of the ISZSP is the **Mazes**. The subtest consists of 10 items, which all have time limits. The assessed child is asked to draw a correct path, from the centre to the exit, through mazes of increasing difficulty (Landman, 1988b). This subtest assesses the child's visual-associative learning ability, attention, concentration, psychomotor speed, and visual-motor integration and coordination. The assumption is that the associative learning ability is an indication of general intelligence (Landman, 1988b).

The child is instructed to work through the maze as quickly as possible. The psychologist is required to instruct the child not to lift the pencil after starting, and the child must not cross the lines. Points are deducted for each error of the child's performance (Landman, 1988b). Once more, there is an emphasis on time and working swiftly through the task, which contradicts conceptions and value of time in the African indigenous epistemology (Kwate, 2001; Wilson & Mujtaba, 2008). At the time of completion of this study, I could not find studies that explored African children's performance on the Mazes subtest.

This critique of the ISZSP confirms that the ISZSP is embedded in psychometric and Piagetian constructivist views of intelligence. The ISZSP is infused with Western assumptions, values, as well as ways of knowing that differ from those of African indigenous cultures. To ensure ethical and fair psychological practice when assessing isiZulu-speaking children, this qualitative evaluation of the ISZSP was necessary.

## **2.6 Conclusion**

Various theoretical and cultural conceptions of intelligence have been discussed in this chapter, contrasting African to Western views that have historically been presented as being applicable to all humanity in general (i.e. the universality assumption). The chapter also discussed theoretical contributions to test construction and development. As noted,

in indigenous African thought, actors engage social cognition as participants in sociocultural communities (Rogoff, 2003). Research has also brought forth evidence that in the African view, intelligence is predominantly considered in social and relational terms; it is socially mediated, distributed and emergent during the course of a social activity. The ISZSP appears to be infused with Western assumptions of what it means to be intelligent. Therefore, the qualitative evaluation of its contextual relevance was necessary to ensure that its use would facilitate a process in which the intellectual functioning of an African child is assessed as defined in an African worldview.

Expanding from Vygotsky's sociocultural theory, this thesis moves to discuss Bakhtin's emphasis on the social and dialogic nature of language, interpretations of language beyond word, the role of culture and social power in the following chapter. Chapter 3 presents a rationale for a Bakhtinian approach to the psychological assessment of intellectual functioning for isiZulu-speaking children, as psychologists scaffold them in their ZPD.

## CHAPTER 3

### TOWARDS A DIALOGICAL VIEW OF HUMAN FUNCTIONING

*A person exists in the form of "I" and "other". The "I" hides in the "other" and in "others", it wants to be only another for others, to enter completely into the world of others as another, and to cast from itself the burden of being only "I" [I-for-myself] in the world (Bakhtin, 1986, p. 147).*

#### 3.1 Introduction

Bakhtin's (1981) dialogism was adopted as a theoretical and methodological framework for this study. This chapter provides the argument for a dialogical view of human functioning. This view is proposed as a suitable approach to the understanding and assessment of intellectual functioning of isiZulu-speaking learners instead of Cartesian, Piagetian and psychometric views. The psychological assessment of intelligence has, for a long period, been influenced and dominated by individualistic views of the self. The current study suggests a move to a relational, Bakhtinian dialogical view of selfhood, as well as a construction of psychological assessment as a dialogic encounter between the psychologist and the assessed child, who are both immersed in their respective background lifeworlds. This study was interested in how these two lifeworlds come to meet during the process of assessment, and how they are negotiated. Moving from Vygotskian social constructionism, the thesis reviews some of the principles of Bakhtin's dialogism, and how they relate to the process of assessing intellectual functioning.

It should be noted that the chapter will discuss Bakhtin's dialogic philosophy and selected key concepts that demonstrate the depth and breadth of Bakhtin's ideas as they applied throughout the current study. The focus was narrowed to the selected concepts only as the intention was not to comprehensively review all of Bakhtin's work *de novo*, as this has already been done (cf.: Bandlamudi, 1994, 1999; Bernard-Donals, 1994; Bhatia, 2002, 2012; Brandist, 2002, 2004; Clark & Holquist, 1984; Day & Tappan, 1996; Hermans, 1996, 2001a, 2001b, 2003; Hermans & Dimaggio, 2004; Hermans & Gieser, 2012; Hermans & Hermans-Jansen, 1995; Hermans & Hermans-Konopka, 2010; Hermans & Kempen, 1993, 1998; Hermans, Kempen & van Loon, 1992; Hirschkop, 1999; Holquist, 1983, 1990, 2002, 2009; Holt, 2003; Junefelt & Nordin, 2009; Lähteenmäki & Dufva, 1998; Liapunov & Holquist, 1993; Lyra, 1999; Mandelker, 1995; Mkhize, 2004, 2011; Morris, 2003; Renfrew, 2006; Rojo, 2009; Salgado & Gonçalves, 2007; Tappan, 1999; Valsiner, 2002; Wertsch, 1990, 1991, 1998; Wertsch & Tulviste, 1992 amongst others).

This chapter begins by looking at the ontology of human existence and the construction of selfhood, with specific focus on selected philosophical views of the self, viz., the Cartesian self, the dialogical self and the African indigenous conception of selfhood. The focus is on how the selected concepts of Bakhtin's philosophy applied to the study and the assessment process. These concepts are: *dialogism; hidden dialogicality; the dialogical self; author and hero; polyphony; utterance; authoritative discourse; internally persuasive discourse; and national and social languages*. I propose a view towards a dialogic human existence, and consequently a dialogic intellectual functioning, which in turn would require a view of the psychological assessment process as a dialogic act.

### **3.2 Human Existence and the Construction of Selfhood**

Disciplines such as anthropology, philosophy and psychology have studied the ontology of human beings and established various self-concept constructions. In this section, I do not intend to give a broad historical account of all prevailing conceptions of the self; rather, I deliberate on a couple of developments that are pertinent to the current study. The concept of the Cartesian self is briefly discussed as a predecessor of the contemporary accounts of selfhood. This is followed by a discourse on dialogism and the dialogical self as a venture in conceptualizing culturally and linguistically appropriate assessment of intellectual functioning in isiZulu-speaking children.

#### **3.2.1 The Cartesian self: I think, therefore I am.**

The notion of the Cartesian self is derived from French philosopher René Descartes' (1637/1997) work on human existence. Descartes distinguished between the physical and non-physical aspects of himself, and paralleled his existence with the act of thinking. Applying his Method of Doubt, he realized the undisputable truth that he could not doubt that he was thinking (Bloom, 2004; Mohammed, 2012; Vesey, 1964; Young & Whitty, 2010). He coined his first eminent principle: "*Cogito Ergo Sum*" meaning: "*I think, therefore I am*" (Descartes, 1637/1997). He posited:

I do not now admit anything which is not necessarily true: to speak accurately *I am not more than a thing which thinks (res cogitans)*, that is to say a mind or a soul or an understanding, or a reason which are terms whose significance was formerly unknown to me. I am, however, a real thing and really exist; but what thing? I have answered: a thing which thinks (Descartes, 1637/1997, p. 24).

With this, Descartes deduced that thinking implies, confirms and is the essence of human existence (Fulford, 1995; Gülerce, 2014; Mohammed, 2012). He further postulated that a human being is a completed solipsistic self that exists as an isolated object – independent and alienated from the world of objects, including other selves or other thinking subjects (Mohammed, 2012; Sorell, 2001; Vesey, 1964). He also came to a supposition that as he possessed his mind as distinct from his body, it meant that there are two aspects of *man* [Descartes' word], i.e., the mind (spiritual substance) and the body (material substance) (Descartes, 1637/1997; Mohammed, 2012; Vesey, 1964).

Descartes' mind-body dualism asserts that while the mind and body are two different and unique parts of the self, they interact – what happens to the body affects the mind, and vice versa, indicating a close affinity and interaction amid the two (Bloom, 2004; Fulford, 1995; Descartes, 1642/1966). His description of how mental processes and activities relate to bodily functions can be traced to his account of interactions that occur in the pineal gland, which is positioned in the innermost part of the brain. In his view, it is in the pineal gland that the mind comes into contact with the body. He wrote:

The machine of the body is so formed that from the simple fact that this gland is diversely moved by the soul, or by such other cause, whatever it is, it thrusts the spirits which surround it towards the pores of the brain, which conduct them by the nerves into the muscles by which means it causes them to move the limbs (Descartes, 1637/1997, p. 48).

It can be deduced, therefore, that for the Cartesian self, intellectual functioning is consequent to the mind-body interactions that occur in the pineal gland, rendering the self individualistic (Young & Whitty, 2010). For decades, psychology has been influenced by such a Cartesian conception of the self, which is isolated, self-contained, without history and culture (Markus & Kitayama, 1994; Mkhize, 2005). Many psychological views on the self have been based on Cartesian assumptions (Hermans, 2003; Mkhize, 2005). The Cartesian self has also influenced psychological assessment in the manner in which the assessed child is viewed and expected to be, together with the distance it creates between the psychologist and the child, and the disregard for the background of the child (Gonçalves & Salgado, 2001; Hermans, 2001b). However, the credibility of Descartes' ontological claim has been faulted by several scholars regarding the division between the mind and the body, as well as the problematic nature of their interaction (Fulford, 1995, Gülerce, 2014; Hermans, 2003; Hooker, 1978; Mohammed, 2012; Rorty, 1986; Sorell,

2001; Williams, 1978; Young & Whitty, 2010), which should afford the discipline of psychology a platform to engage with different views of selfhood.

Hermans and Hermans-Konopka (2010) accentuate that after Descartes' philosophy of selfhood, views and conceptions of human ontology became more dynamic. The emphasis has become more on the relational nature of the self – having interaction with the internal and external world, and between self and other (Bandlamudi, 1994; Gülerce, 2014; Hermans, 2003; Hermans & Hermans-Jansen, 1995; Hermans & Hermans-Konopka, 2010, Hermans & Kempen, 1993, 1998; Hermans et al., 1992; Mkhize, 2004; Ooi, 2013; Sidorkin, 1996; Sorell, 2001; Young & Whitty, 2010). Such views include Bakhtin's dialogism and the dialogical self, which are discussed below.

### **3.2.2 Bakhtin's dialogism.**

Mikhail Bakhtin was a literary theorist who is widely renowned as the father of dialogism. His philosophy has influenced and invoked thinking in literary studies, education studies, linguistics, anthropology, psychology and social theory (Akhutina, 2003; Holquist, 1990; Jacobsen, Råheim & Rasmussen, 2010; Junefelt & Nordin, 2009; Moen, 2006; Morris, 2003; Ooi, 2013; White, 2009). His work accentuates language as a production of meaning and gains coherence through his commitment to the concepts of *dialogue* and *dialogism*. Dialogism was adopted in this study to capture the complexity of a psychological assessment process using a translated tool (Ooi, 2013). Dialogism was also chosen as the theoretical and methodological platform for this study based on the premise that psychological assessment is a form of dialogue and a communicative activity.

Bakhtin (1981, 1984) saw all of human life as an ongoing, unfinalizable dialogue. He placed dialogue, the exchange of ideas between equally responsive subjects, at the heart of human existence. He wrote:

The dialogic nature of consciousness, the dialogic nature of human life itself. The single adequate form for *verbally expressing* authentic human life is the *open-ended dialogue*. Life by its very nature is dialogic. To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth. In this dialogue a person participates wholly and throughout his whole life: with his eyes, lips, hands, soul, spirit, with his whole body and deeds. He invests his entire self in discourse, and this discourse enters into the dialogic fabric of human life, into the world symposium (Bakhtin, 1984, p. 293).

Dialogue as the core of human existence is constantly and actively constructed in an individual's encounter with another (Bandlamudi, 1994; Gülerce, 2014; Oleś, 2009) and it is the fullness of human functioning which requires a manifestation between individuals, within an individual self, and with an individual's encounter with his or her social world (Mkhize, 2004; Ooi, 2013; Sidorkin, 1996). Dialogue is more than a mere form of communication; it is beyond verbal communication, and includes non-verbal aspects of communication (Fogel, 1993; Hermans, 2001a, 2002; Meltzoff & Moore, 1994; Rochat, 2000; Rochat, Querido & Striano, 1999). To experience full human existence, one needs to participate in dialogical relations (Hermans & Kempen, 1993; Gülerce, 2014; Linell, 2009; Oleś, 2009; Sidorkin, 1996); for dialogue is the essence of being (Bakhtin, 1984).

With all this mentioned, dialogism can thus be defined as the quintessence of human existence and human functioning. Bakhtin's dialogism is defined as an epistemology that seeks to grasp human behaviour through the use humans make of language (Bakhtin, 1981; Gülerce, 2014; Holquist, 1990; Oleś, 2009). It imagines and depicts the social world as diverse and complexly entwined (Ooi, 2013) where meaning is situated and constructed in social interactions. Meaning does not emerge out of vacuity, *ex nihilo*, but it is dialogically viewed as an emergent phenomenon, assimilating facets of the immediate and the historical, social and cultural contexts of performance (Bakhtin, 1986; Sidorkin, 1996).

Meaning-making is thus not a solo activity, but it occurs in dialogic interactions within the individual and during an individual's encounter with his or her social world (Bakhtin, 1981, 1986; Bandlamudi, 1994, 1999; Barani, Yahya, & Talif, 2014; Linell, 2009; Ooi, 2013; Sidorkin, 1996). Meaning is relational, always springing out of dialogue and belongs to dialogue, making dialogue a core aspect of human existence (Bostad, Brandist, Evensen, & Faber, 2004; Holquist, 1990; Oleś, 2009). The historical, social and cultural embeddedness of dialogue and creation of meaning indicates that meaning is always co-authored and positioned at the space between the self and other, and between the self and its immediate surroundings (Bakhtin, 1984; Bostad et al., 2004; Hermans, 2001a, 2002; Hermans & Kempen, 1993; Holquist, 1990; Mkhize, 2004, 2011; Sidorkin, 1996; Wertsch, 1990).

As most Bakhtinian scholars state (Bostad et al., 2004; Gülerce, 2014; Hermans & Kempen, 1993, 1998; Holquist, 1990; Junefelt & Nordin, 2009; Mkhize, 2004; Ooi, 2013; Sidorkin, 1996; Tappan, 1999; Wertsch, 1990, 1991), dialogue is beyond a mere conversation as a means towards a communicative end. It is an end in itself, readily available in every culture and

engaged in language (Sidorkin, 1996). For human engagement with the world, dialogism supposes a speaking-responding individual, who experiences language as an interaction of words and signs from the past (i.e., foreknowledge) and present worlds, facing and responding meaningfully to the sociocultural experience which that language underwent in its history (Lachmann, 2009; Sidorkin, 1996).

Dialogism is therefore a mode by which individuals acquire knowledge through *language*. Dialogism presents a world that recognizes that all language – verbal and nonverbal, written or spoken – is social, and recognizes the viability and necessity of existing social, economic and national languages (Bakhtin, 1981; Halasek, 1999). For Bakhtin, language is everything, and language is *meaning*; he argues that everything means and is understood as a part of a greater whole (Akhutina, 2003; Bakhtin, 1981; Hirschkop, 1999; Holquist, 1990; Tsitsipis, 2004; White, 2009).

Dialogism is also participative thinking, beginning with the everyday exchange or communicative act that is embedded in social reality (Gardiner, 2000). During the communicative act, Bakhtin (1981) maintained that the speaker purposefully provokes a response from another out of a genuine aspiration to communicate even when he or she is not heard by the other (see also the discussion on the *utterance* in section 3.4 below). He posits an assumption of an *invisible thou* whose response is always sought by the speaker – even when the speaker appears to be physically alone – as human beings conduct dialogues within themselves in their consciousness (Bakhtin, 1981; Moen, 2006). Bakhtin coined this as *hidden dialogicality* – characterized by an invisible speaker – implying that as social beings, all of our speech and thoughts do not occur in vacuity. He stated:

...Imagine a dialogue of two persons in which the statements of the second speaker are omitted, but in such a way that a general sense is not at all violated. The second speaker is present invisibly, his words are not there, but deep traces left by these words have a determining influence on all the present and visible words of the first speaker. We sense that this is a conversation, although only one person is speaking, and it is a conversation of the most intense kind, for each present uttered word responds and reacts with its every fibre to the invisible speaker, points to something outside of itself, beyond its own limits, to the unspoken words of another person (Bakhtin, 1984, p.197).



During the communicative act, the receiver and the speaker (whether visible or invisible/imagined) are constantly shaping this exchange in a context that is socially determined and driven (Bakhtin, 1981, 1984; White, 2009). As mentioned above, dialogism becomes a genre through which new knowledge is constructed socially through interaction, and is grounded in the situation in which it occurs (Bakhtin, 1981, 1986; Halasek, 1999; Holquist, 1990; Mason, 2007; Mkhize, 2004, 2011; Wang, Bruce & Hughes, 2011). The invisible speaker that Bakhtin (1984) referred to is represented by the Eurocentrism that is present in the ISZSP; although it is a translated tool, the assumptions and philosophy of Eurocentrism remain embedded in it and the entire intelligence testing process.

In the African indigenous epistemology, dialogue has always been at the core of human existence; this is evidenced in the view that the maxim: *Umntu ngumuntu ngabantu* points at the unavoidably dialogic nature of being. (This thesis does not intend to probe deeply into this topic; the reader is thus referred to the works by: Kochalumchuvattil, 2010; Manganyi, 1981; Mkhize, 2004, 2005; Ntibagwirwa, 2009; Nussbaum, 2003; and Ramose, 2002). With the dialogical human existence and the social construction of meaning, the current study posits that, consequently, all human functions are dialogical – specifically, intellectual functioning. Individuals enter into numerous and endless dialogical relationships that facilitate growth and enhancement of every aspect of their existence. As children develop, their intellectual functioning is mediated and constructed in social interactions (Lantolf, 2000; Vygotsky, 1978; Wertsch, 1985) that occur in the time and space of self and the other (Holquist, 1990). Therefore, the application of the dialogical nature of human existence to the psychological assessment of intellectual functioning is necessary. This requires an understanding of the dialogical self and how the process of psychological assessment is co-constructed and socially negotiated.

### **3.2.3 The dialogical self: Thou art, therefore I am.**

From the above account of the dialogical nature of human existence, it is clear that the dialogical self differs immensely from the Western view of the self – the completed and finalized individualistic, solipsistic view of the self that is separate from the outside world, i.e., the Cartesian self (Barani et al., 2014; Hermans, 2003, 2014; Hermans et al., 1992; Hermans & Hermans-Jansen, 1995; Hermans & Hermans-Konopka, 2010; Hermans & Kempen, 1993; Mkhize, 2004, 2005; Mohammed, 2012; Sorell, 2001; Young & Whitty, 2010). In contrast to Descartes' ontology, Hermans et al. (1992) argue that human existence is always dialogical – it is a matter of relating to the world and other selves in it. They affirm

that the dialogical self extends beyond the Cartesian conception of the self, which assumes that individuals have one centralized *I* responsible for all thinking, which resides only in the mind and separated from the social world (Batory, Bąk, Oleś & Puchalska-Wasył, 2010; Hermans et al., 1992).

Hermans et al. (1992) authored the dialogical self theory. They drew mainly from the theories of James (1890) and Bakhtin (1984), and formulated a decentralized, polyphonous self-concept, which is tied together by meaningful relations. Hermans and colleagues (Hermans, 1996, 2001a, 2001b, 2003; Hermans et al., 1992; Hermans & Gieser, 2012; Hermans & Hermans-Konopka, 2010; Hermans & Kempen, 1993, 1998) have further accentuated that to understand the dialogical self, it is essential to study James' (1890) psychology and distinction between two aspects of the self, viz., the "*I*" and the "*Me*", as well as Bakhtin's (1984) literary-philosophical metaphor of the "*polyphonic novel*".

According to James (1890), the *I* is paralleled with the "self as knower" and the *Me* is paralleled with the "self as known". The *Me* comprises the "material me", the "social me" and the "spiritual me" (Barresi, 2002, 2012; Hermans, 2001a; James, 1890). The self as known is composed of all that an individual owns, extending to the environment, where self and other do not exclude one another (Barresi, 2002, 2012; Hermans, 2001a, 2014; Hermans & Kempen, 1993). Hence the self as known is a spiritual sociocultural *Me*, with all that is owned being part of and inseparable from *Me* (James, 1892).

The *I*, on the other hand, has three features, viz., continuity, distinctness and volition (Barresi, 2002; Damon & Hart, 1982; Hermans, 2001a; James, 1890). The *I* is more than the physical being who thinks; "the thought... is itself the thinker" (James, 1890, p.401), thus the self as knower is the "thinking *I*". The sense of personal volition is revealed in the "thinking *I*'s" constant appropriation and rejection of thoughts by which the self as knower attests itself as an active processor of experience (Hermans, 2001a; James, 1890). The "thinking *I*" is distinct, subjective and has the ability to move through space from one position to another according to changes that occur in history, preserving its continuity and sameness through time (Hermans, 2001a).

James (1892) gave a summary of his view of the *I* and its relationship with *Me* in the following way:

The consciousness of Self involves a stream of thought, each part of which as "*I*" can remember those which went before, know the things they knew, and care

paramountly for certain ones among them as “Me”, and appropriate to these the rest. (p.215)

The second account of the self is found in Bakhtin's (1984, 1981) concept of the multiplicity of voices in a polyphonic novel, which sanctions for a multiplicity of self-positions among which dialogic relationships emerge. Bakhtin discussed Dostoyevsky's poetics as having generated a new arty form of thought – the polyphonic novel. The principle feature of the polyphonic novel is that it is “composed of a number of independent and mutually opposing viewpoints embedded in characters involved in dialogical relationships” (Hermans et al., 1992, p.40). The notion of the polyphonic novel with its dialogical features serves as one of the main premises upon which Hermans et al. (1992) have built their self-construction theory.

According to Bakhtin (1984, 1981), in the polyphonic novel there is not a single author at work – all the characters in the novel are authors and thinkers too. The characters not only have the prospect of entering into dialogue with any real character, but also with any imagined character; thus dialogicality is not limited to the relations of two distinctive interlocutors. Additionally, each character in the novel is a multi-voiced self (Bakhtin, 1984). Some of the voices represent the independent and mutually opposing viewpoints embedded in other characters carried from the past to the present (Hermans, 2003, 2014; Sidorkin, 1996). Additionally, each voice has its own position and independent thinkers that allow the polyphonic self to develop its own worldview and express it (Bakhtin, 1981, 1984; Barresi, 2002, 2012; Hermans, 2001a, 2002, 2003; Renedo, 2010; Sidorkin, 1996).

Moreover, the multitude of voices and positions are kept alive and active, constantly in interaction to preserve human existence (Sidorkin, 1996) where they complement and oppose each other in dialogical ways (Bakhtin, 1984; Hermans, 2001a; Hermans et al., 1992). This affords the self a possibility to alter each thought to a voice, and subsequently to an utterance that enables dialogical relations to occur between this utterance and the utterances of others with whom the self has an encounter (Bakhtin, 1984; Leiman, 2002). During intelligence testing, with current practice, the entire testing situation is not constituted as a dialogue; it is the voices carried by the test itself that perpetually dominate, making the psychological assessment a closed process. This has detrimental implications for the assessment of intellectual functioning using the ISZSP, in that isiZulu-speaking children are taken out of their own chains of previous communications – encompassing their history, worldviews, and immediate surroundings – and they are

transferred into a world that is not their own. During such a process, the voices/perspectives of indigenous learners are marginalized, silenced and completely ignored. This, then, would affect their performance and the outcome of the assessment. There is currently no empirical literature that suggests how the silencing of indigenous voices and perspectives can be addressed during the administration of the ISZSP. The current study sought to investigate this and explore means through which psychologists have attempted to ameliorate the situation.

The intersection between James' (1890) and Bakhtin's (1984) accounts of the self is evidenced when relating James' *Me* and the *I* to Bakhtin's polyphonic/multi-voiced self. Each *Me* becomes a character in a polyphonic novel of self, and each *Me* has a thinking *I* (Barresi, 2002) constantly connecting remembered-past thoughts to present thoughts (James, 1890; Hermans, 2002). As the *I* moves among different and opposing positions, it endows each position with a voice, establishing dialogical relations between the positions (Hermans, 2002; Sidorkin, 1996). When each *I* thinks for its own *Me*, it results in the self not only having multiple minds, multiple thinkers (Barresi, 2002; Hermans, 2002; Hermans & Kempen, 1993).

The multiple minds refer to the dialogical abilities of the mind (Hermans, 2002). Not only does the dialogical self have multiple minds and multiple thoughts, but it also has multiple voices initiating internal dialogue (Barani et al., 2014; Barresi, 2002, 2012; Batory et al., 2010; Hermans, 2002; Hermans & Kempen, 1993); therefore, each thought becomes a voice. The voices function like characters in a novel, representing a multiplicity of viewpoints and independent worlds. The conception of the Cartesian self denies this standpoint and its related testing processes and procedures. (Bakhtin, 1984; Hermans & Kempen, 1993; James, 1890). The multiple viewpoints have power, and at times conflict with other points of view of the self as known (*Me*) and/or of others (Gonçalves & Salgado, 2001; Hermans, 2001a, 2002; James, 1890, 1892; Salgado & Gonçalves, 2007). To resolve the conflict, *I*-positions assist the self to choose among the rival views; therefore, *I* speaks for *Me* (Hermans, 2002; James, 1892).

The dialogic view of human functioning, therefore, is characterized by multiplicity. The multiplicity and the social nature of voices allow us to understand the dialogical human existence as incorporated in sociocultural worlds (Gonçalves & Salgado, 2001). The dialogical self is a multivoiced self with multiple *I*-*Me* positions (Bhatia, 2002; Barresi, 2002), from which multiple worldviews, realities and narratives emerge dialogically in a social

context (Bandlamudi, 1999; Bathia, 2002; Day & Tappan, 1996; Hermans, 2003; Hermans & Gieser, 2012; Hermans & Kempen, 1993; Wertsch, 1990). These would reflect the voices of inner-others who are simultaneously part of the self, and even constitutive of it, as well as multiple linguistic contexts and speech communities where the dialogic self is located (Hermans, 2008; Holquist, 1990). As James (1890, 1892) argued, in all contexts, the dialogical self is continuously faced with the conflict and rivalry within such multiplicity, which they have to confront and choose amongst. All this facilitates and enhances the process of developing a dialogic mind and human functioning (Batory et al., 2010).

The current study argues that when psychological assessment is administered in the standardized manner, the indigenous African worldviews are excluded. However, individual learners inevitably bring their worldviews with them to the situation. The assessed child's multiple stories are rendered mute, and forbidden completely. Psychological assessment should not be rendered different from contexts of multiplicity. It is a communicative and dialogical process, which can be equated to the polyphonic novel, with the psychologist as the author and the child as both hero and author of the polyphonic act. I argue that during assessment using the ISZSP, the isiZulu-speaking child, as a dialogic self, encounters voices of Western origin – uttered by the psychologist and the ISZSP – that are rival to the multiple African voices in the child, which carry sociocultural past-present connections (Bakhtin, 1984; James, 1890, 1892). This conflict is authored on the child, forcing the child to choose a particular worldview in his or her performance and completion of the assessment tasks. The child is then led to take the position of the authorial voices of the ISZSP (ventriloquation) (Mkhize, 2004). This is further discussed in section 3.2.5.2 below.

### **3.2.4 The African self: Umuntu ngumuntu ngabantu.**

The dialogical self is not distinct from the African view of the self. Mbiti (1969) suggested that the African view of personhood can be summarized in the statement: "I am because we are, and since we are, therefore I am" (p. 108). Mkhize (2004) reverberated this in his account of dialogism and the African self as evidenced in the isiZulu maxim: *Umuntu ngumuntu ngabantu*, which translates as: *a human being is a human being because of other human beings*. [This maxim and similar idioms are also found in other African languages such as, among others, Kikuyu: *Mundu ni Mundu ni undu wa andu*; Kirundi and Kinyarwanda: *Umuntu ni umuntu mu bantu*; Sesotho: *Motho ke motho ka batho*; Tshivenda: *Muthu ubebelwa munwe* (Kochalumchuvattil, 2010; Mkhize, 2004; Ntibagirirwa, 2009; Nussbaum, 2003; Ramose, 2002; Shutte, 1993).]

Contrary to the Cartesian self, in indigenous African thought, the self is not a closed completed system that is impermeable to others around them, but it is understood as socially situated and negotiated in discourse with others (Kochalumchuvattil, 2010; Mbiti, 1969; Menkiti, 1984; Mkhize, 2004; Okolo, 2003; Ramose, 2002; Zahan, 1979). This is clearly articulated by Mbiti (1969):

In traditional life, the individual does not and cannot exist alone except corporately. He owes this existence to other people, including those of past generations and his contemporaries. He is simply part of the whole. The community must therefore make, create, or produce the individual; for the individual depends on the corporate group... whatever happens to the individual happens to the whole group, and whatever happens to the whole group happens to the individual. The individual can only say "I am, because we are; and since we are therefore I am". This is the cardinal point in the understanding of the African view of man (Mbiti, 1969, p. 108).

This notion of the indigenous African self resonates with the dialogical self that is characterized by multiplicity and a social nature, incorporating the self into sociocultural worlds; selfhood emerges while engaging with others in spheres of speech with past utterances, belonging to others, conditioning the nature of future utterances and shaping the dialogical self (Bakhtin, 1981; Barani et al., 2014; Hermans, 2001a; Hermans et al., 1992; Jacobsen et al., 2010; Kochalumchuvattil, 2010; Mkhize, 2004; Nussbaum, 2003; Shutte, 1993).

Following Mbiti's (1969) viewpoint, Menkiti (1984) emphasized that "in the African view, it is the community which defines the person as a person, not some isolated static quality of rationality, will, or memory" (p. 172). To exist as a human being means to "affirm one's humanity by recognizing the humanity of others and, on that basis, to establish human relations with them" (Ramose, 2002, p. 42). This is to accentuate that the individual self influences and is influenced by the community to which he or she belongs and "...it is the community which makes the individual... without the community, the individual has no existence" (Okolo, 2003, p. 213). The self is viewed in its relationship with others, not in its separation from them; it is embedded in the communal world through which the self emerges and finds full meaning in life (Okolo, 2003; Zahan, 1979). Therefore, the African self is dialogical, relational and communal. Mkhize (2004) suggested that it is only through this social nature of the person that one can begin to understand the self. This study sought

to explore means by which isiZulu-speaking learners could be assessed with the ISZSP in a manner that allows for this dialogicality. IsiZulu-speaking children are influenced by the communities where they are rooted. Their abilities and functioning are largely shaped by their history and sociocultural relations. Therefore, during assessment, they would bring with them historical knowledge and voices of others that make them who they are. They would enter into dialogue with these voices, which would shape their performance on tasks and responses to the test. However, the current assessment practice using the ISZSP does not take into account the dialogical nature of the self and the influences of others. The focus is on the child as an individual, and their intellectual functioning at the time of the assessment.

The self in indigenous African epistemology as communal also indicates its multiplicity – similar to the dialogical self which is characterized by multiplicity (Ogbonnaya, 1994; Zahan, 1979) This multiplicity of selves is shown in that African persons always preserve within them their own predecessors, genitors, descendants and ascendants, i.e., their “spiritual component, the present self, as well as selves that are yet to be born” (Mkhize, 2004, p. 80). Therefore, the African self exists as the sum of past and present experience in the human community and broader culture (Ogbonnaya, 1994), where the self engages in dialogue with chain-like utterances of their predecessors, descendents and ascendants (Akhutina, 2003; Bakhtin, 1981; Hermans, 1997; Holquist, 1990; Mkhize, 2004; Tsitsipis, 2004; Wertsch, 1991). In this way, parallel to Bakhtin's (1981) polyphonic self, the African self possesses a community of selves within it.

Also related to Bakhtin's (1981) proposition that dialogism is a method by which individuals attain knowledge and meaning through language, Menkiti (1984) argued that language as a mode of communication plays a significant role in the emergence of the self as well as in the generation of knowledge, shared meaning, attitudes and mental dispositions. He posited that language affords the means through which the self enters into dialogic relationships within the community, pointing the individual towards a “mental commonwealth with others whose life histories encompass the past, present and future” (Menkiti, 1984, p. 172).

Menkiti (1984) highlighted that for Africans, language is only one form of communication. Like all humans, Africans also communicate non-verbally through gestures, activities and performances based on their cultural values and backgrounds. This extends Manganyi's (1981) postulation of bodily dialogue: that the human body becomes a living vessel of

experience for the communication and projection of ideological meanings. These views corroborate Bakhtin's (1981) position that language, in all forms – verbal or non-verbal – is meaning. The shared knowledge and meaning relates to what Bakhtin (1981, 1984) coined as social languages, which would include the social rules that govern when something should be said and/or done, how it should be said and/or done, and who it is appropriate to say it to (Bakhtin, 1981; Hermans, 1996, 2001a, 2012; Hermans & Gieser, 2012; Hermans & Kempen, 1995; Kochalumchuvattil, 2010; Menkiti, 1984; Mkhize, 2004; Ntibagirirwa, 2009). This would have a major role in how an African isiZulu-speaking child would speak and perform during an assessment of his or her intellectual functioning. It has major ramifications with regard to how the child's internally persuasive voice emerges, and how social languages shape the position of the child during psychological assessment through the process of ventriloquation. The current study chose the theory of the dialogical self as a point of departure as this theory resonates with African conceptualizations of selfhood, which have been shown to be predominantly dialogical. I therefore posit that the African self is a dialogical self, and this should be integrated into the assessment processes when African children are tested.

### **3.2.5 The dialogical self as author and hero of the polyphonic act.**

In the polyphonic novel, Bakhtin (1984) designated the performer of the dialogic act as *hero* and the person who attempts to interpret the act as *author*. Together, the hero and author co-create cultural reality in social dialogue. They engage in an aesthetic activity, which is concerned with what Bakhtin (1990) termed the "world of human action – 'the world of event' 'the world of the performed act'..." (p. 22). The performed act is continuously socially evaluated, and evaluative meaning is achieved through applying an interpretive analysis (Bernard-Donals, 1994; Hirschkop, 1999; Liapunov & Holquist, 1993; White 2009). Partakers in the world of human action, the world of the performed act, engage in a dialogic process where language is cogitated in light of their distinctive cultural and historical context in which the performed act creates and potentially alters meaning (Bakhtin, 1984, 1990); Shotter, 1993a, 1993b).

Bakhtin shows a distinction of the nature of the hero from that of an author in a *monologic* (single-voiced) act and *polyphonic* (multivoiced, dialogic) act. He argued that:

Self-consciousness, as the artistic dominant in the construction of the hero's image, is by itself sufficient to break down the monologic unity of an artistic world – but only on condition that the hero, as self-consciousness, is really represented and not merely expressed. That is, does not fuse with the author, does not become the



mouthpiece for his voice; only on condition, consequently, that accents of the hero's self-consciousness are really objectified and that the work itself observes a distance between the hero and the author (Bakhtin, 1984, p. 64)

In this argument, Bakhtin (1984) posits that the construction of the hero's character requires an atmosphere that would permit the hero's discourse to reveal and illuminate itself. In a monologic act, Bakhtin suggests that the author's ideology dominates the whole world; the hero's worldview is submitted to the author's worldview. Consequently, the hero is fully understood and clearly describable by the author's framework (Bakhtin, 1984; Miyazaki, 2009). Bakhtin further posited that the hero intuitively sets out to convey his or their expression in ways that would encourage mutual understanding, while the author seeks to interpret fittingly (Bakhtin, 1984).

In a polyphonic act, the hero exists independently from, and does not submit to, the author (Bakhtin, 1984; Bathia, 2002; Day & Tappan, 1996; Hermans & Kempen, 1993; Miyazaki, 2009; Renedo, 2010). As mentioned above, the polyphonic novel does not have a single author; the characters in the novel also author the act (Bakhtin, 1984). In the context of multiplicity and conflicting worldviews referred to in the previous section, the hero (character) is able to oppose the author in the presentation of their views, and there is no dominance of the worldview of the author. In other words, the hero authors their worldview in a dialogical way (Mkhize, 2004).

Applied to the current study, the aesthetic activity signifies the ideal relationship between the psychologist (author) and the learner (hero) within the interpretive act of inquiry and response during meaningful psychological assessment. I argue that for decades, the process of psychological assessment has been a monologic act, informed by a single psychometric Cartesian view of intellectual functioning, and lacking multivoicedness. The employment of Bakhtin's metaphor of the polyphonic novel is posited as the most effective means of interpreting the performed communicative act – which is the dialogical co-construction and negotiation of the psychological assessment process. It allows for an analysis and the experience of this process in a social context by language and *in* language (Bakhtin, 1984). During this process, the psychologist and the assessed child are in constant dialogue. The current study argues for an approach to psychological assessment that would afford the assessed child (the hero) to continuously express new views that demonstrate his or her intellectual capacity – entirely free from authorial control. This authorial control is in the form of the assessment tool that is loaded with Western culture, as well as the Western-oriented training background of the psychologist,

which differ from the African culture and conceptualization of intelligence (Cocodia, 2014; Grigorenko et al., 2001; Ho, Chan, Peng & Ng, 2001).

Not opposing and allowing for this authorial control ignores, suppresses and silences local African voices and conceptualizations of intelligence (Cocodia, 2014; Gonçalves & Salgado, 2001; Ho et al., 2001). The power and dominance of the Western voices have the ability to suppress the voices of the assessed child and may inhibit the movement to other forms of meaning-making (Gonçalves & Salgado, 2001; Ho et al., 2001; Salgado & Gonçalves, 2000). This is evidenced by the silencing of children who are incapable of responding to test items that have been drawn from a worldview that is foreign to them. It is also demonstrated by the children's attempt to give elaborative explanations of their wrong answers (as deemed by the test) in an attempt to draw the psychologist to their standpoint (Ho et al., 2001).

As the psychological assessment process entails an encounter between different worldviews – one dominant and represented by the test and the psychologist that administers it, and the other subservient and represented by the child and his or her cultural background – it is not evident how both the tester and testee respond to this gap. Hence the current study sought to establish how these power and dominance dynamics are negotiated during the assessment process itself. I argue that the isiZulu-speaking child (as hero) should occupy a unique position which is as important as that of the psychologist. As Bakhtin argued, the voices and worldviews of the hero in the novel are treated with as much respect as those of the author when engaged in dialogical relations, because they are equally authentic (Bakhtin, 1984; Sidorkin, 1996). During the psychological assessment process, the isiZulu-speaking child would take a position beside the psychologist (as author) and listen to the psychologist, respond to him or her, agree or disagree with him or her and the Western worldview he or she puts forward.

However, this would not position the psychologist as inert and less significant in this dialogic act (Barresi, 2002; Hermans, 2001, 2002; Holquist, 1990; Miyazaki, 2009; Sidorkin, 1996); the author is "constantly present ... and is active in it to the highest degree" (Bakhtin, 1984, p. 52). In the proposed dialogic approach to the psychological assessment process, the psychologist would construct the platform on which the isiZulu-speaking child speaks and behaves, while the psychologist presents the worldview embedded in the assessment tool on the same platform, confronting the child, who has an equal right to the exposition of and opposition to that view. The psychologist would therefore create a space in which

he or she and the child would be at liberty to enter into dialogue, and discuss the child's responses and worldviews, including those that might differ from those prescribed by the ISZSP (Bandlamudi, 1999; Brown & Renshaw, 2006; Emerson & Holquist, 1986; Holquist, 1990; Morson & Emerson, 1990). This dialogue would allow for the child to draw on past utterances to express his or her worldview in a manner that would demonstrate his or her intellectual functioning as shaped by their sociocultural background. The psychologist would then analyse these utterances and their meaning in context. As will be discussed below, Bakhtin (1981) argued that the interpretation of an utterance does not separate the language from its context. It provides a means of examining language use as a deliberate social act that is responsive to its past.

### **3.2.5.1 The utterance.**

Another key concept significant to the dialogical self is a characteristic of Bakhtin's dialogism: the *utterance*, which is described as the minimum amalgamated unit of speech interaction that necessitates active interaction between the hero and the author (Akhutina, 2003; Bakhtin, 1984, 1979, 1981; Leiman, 2002). The utterance is consistent with an approach to understanding dialogical human existence and the dialogical self as a performer in the polyphonic novel (Mkhize, 2004). Bakhtin (1986) defined the utterance as a unit of speech communication which is determined by a speaker who produces it. Its boundaries are determined by the change of alternate speakers (Bakhtin, 1986, 1990). The utterance may be thought, spoken or written (Akhutina, 2003; Bakhtin, 1986; Moen, 2006). It is a social, historical and dialogized event, requiring active interaction between the speaker and the listener (Bakhtin, 1981). It does not detach the language from its context; it provides a means of evaluating language use as a deliberate social act that is responsive to its past (Akhutina, 2003; Gülerce, 2014; Jacobsen, Råheim & Rasmussen, 2010; Junefelt & Nordin, 2009; Moen, 2006).

For Bakhtin, the utterance is not a discreet word or sentence, but it refers to the main unit of meaning – the flow of language within the social context (Holquist, 1983). Thus, the utterance varies from silence to multiple exchanges as fragments of genres – defined by its prospective to be answered rather than its linguistic eloquence (White, 2009). In the assessment settings, utterances could be a single word, or it could be sentences spoken by the tester or the testee in response to the other. An utterance could be the manner in which the testee looks at the tester; or the use of bodily gestures in response to what has been said, and so on. Bakhtin (1986) asserts that “each separate utterance is an individual, of course, but each sphere in which language is used develops its own, relatively stable,

types of utterances. These we may call speech genres" (p. 60). The speech genre is an integrated category that includes both the cognitive and social aspects of language in a communicative act (Ishiguro, 2010). It is the standard form for structuring an entire utterance (Akhutina, 2003; Ishiguro, 2010). Bakhtin (1981) postulated that:

...the speaker has available to him not only the obligatory forms of his language (the vocabulary and grammatical system) but also the obligatory forms for utterances, that is, speech genres. The latter are just as necessary for mutual understanding as the forms of language. Speech genres, as opposed to language forms, are vastly more changeable, flexible, plastic, but to a speaker they have normative significance. He does not create them; rather they are givens. Thus, a unique utterance, despite its individuality and creative nature, absolutely cannot be considered to be a free combination of the forms of language (pp. 259-260).

Bakhtin emphasized that speech genres can be interpreted as standard forms of language that are symbolized by the selection of a specific form of communication as a means of social orientation (Bakhtin, 1986; Bell & Gardiner, 1998; Brandist, 2002; Holquist, 2009; Rojo, 2009). These forms of language are preserved in existence by ongoing context-specific communicative processes that define them. Consequently, those partaking in a speech genre should use the appropriate ways of speaking in those particular contexts, otherwise the already existing members of those speech genres would not treat them as knowledgeable participants (Bakhtin, 1986; Holquist, 2009). Bakhtin (1986) distinguished between primary speech genres, which are everyday conversations, e.g., greetings, talking about the weather, talking about a meal to prepare for dinner. The secondary speech genres are more complex genres that contribute to the authorship of the hero, and draw from different types of language as the key to past, present and future discourse (Akhutina, 2003; Bakhtin, 1981, 1986; Bandlamudi, 1994, 1999; Holquist, 2009; Mandelker, 1995; Rojo, 2009), e.g., artistic speech genres, scientific speech genres, political speech genres, psychological speech genres, and so forth. When using the ISZSP, completing the tasks in the Blocks subtest hastily, owing to the influence of speed and reaction time, is a performed utterance that is responsive to the test instruction given by the tester, in the psychological speech genre that maintains that speed is one of the aspects that constitute intelligence. The utterance in this example does not represent the utterances in the communication sphere of the African isiZulu-speaking child, but are rooted in Eurocentric psychological speech genres that are imbued with utterances from the works of Western theorists such as Piaget, Spearman, and Binet.

In addition, for an utterance to be existent within a speech genre, language has to have the prospect of being answered – in other words, the utterance sanctions addressivity (Holquist, 1983). It assumes a voice which communicates to and with the addressee in an endless dialogue (Akhutina, 2003; Bell & Gardiner, 1998). It always responds to past contexts, anticipating and presupposing the potential response of the other (Akhutina, 2003; Holquist, 1983). As Bakhtin (1981) stated:

When I construct my utterance, I try to actively determine it [the possible answer of the listener] and, on the other hand, I try to anticipate it. This anticipated answer, in turn, has an effect on my utterance... When I speak I, I also consider the apperceptive context in which the person I am addressing perceives my speech, the extent to which he is informed by the situation... his views and convictions, his prejudices... his sympathies and antipathies – after all, all this will affect his response of active understanding of my utterance. My consideration of these things also determines my selection of utterance genre, compositional devices, and finally, the selection of linguistic means, that is, the style of the utterance (p. 276).

Whether the addressee is a visible other, imagined or an invisible one, as in the case of hidden dialogicality, the utterance always seeks addressivity and a response, an answer, as humans are always not passive, but active in their conversations with others – real or imagined (Bakhtin, 1981, 1986; Barani et al., 2014; Hermans, 2002; Mkhize, 2004). Bakhtin (1984) wrote: “Forming itself in an atmosphere of the already spoken, the word is at the same time determined by that which has not yet been said but which is needed and in fact anticipated by the answering word” (p. 280). Holquist (2014) adds that the meaning of words as utterances “...depends on another prior word... they are incomplete in themselves and depend on one another to be meaningful” (p. 7). This thesis argues that it is this already spoken, prior word constituting the psychological assessment and the ISZSP itself that disadvantages the African child, who comes from a background with its own prior words or presuppositions about life in general. One such prior word is demonstrated in the value ascribed to abstract thinking by Western conceptions of intelligence, whereas in the background and lifeworld of the African child, holistic thinking that involves the concrete and the abstract is valuable (Hevi, 2004). Holistic thinking is not equated with lower levels of intelligence, but is valued as a means of thinking about ways of living in current contexts (Casinader, 2014; Hevi, 2004).

Continuing on addressivity, the addressee is always fully capable of articulating his or her response to the utterance, and the responsivity is never final; the word is always amendable, and to it more utterances can be added as they arise in a dialogic context. Thus, the dialogical self is never a finalized product (Bakhtin, 1986; Holquist, 2009, 2014; Jacobsen et al., 2010; Ooi, 2013). Unlike constructivist theories of cognitive development and theories of intelligence that emphasize finalized individuality, the addressivity of the utterance suggests that humans are never isolated from others, even in their thoughts (Bakhtin, 1986; Day & Tappan, 1996; Mkhize, 2004). The challenge with the current practice of intelligence testing is that the assessment process is presented as a finalized product, with predetermined correct answers and no opportunity to elaborate and engage dialogically in order to correct one's responses. As the dialogue is never closed, but always open-ended and future-directed, allowing the assessed child to enter into dialogue with the tester using the ISZSP would allow for the possibility for new meanings to emerge between the various points of view that come across each other in the dialogue. The current conventional testing practice does not allow for the possibility for new meanings to emerge as it is a closed, finalized process from the beginning. The expectation is for the child to give responses that are already known and inscribed as correct answers in the test.

The utterance also functions to allow the speaker to engage in dialogue with past speakers and past utterances. This is shown in the following:

Every specific utterance is a link in the chain of communication in a definite sphere... The utterance occupies some definite position in this sphere of communication, on a particular issue, in a particular transaction, and so on. It is not possible to define one's own position without relating it to other positions. For this reason, each utterance is full of responses of different types to other utterances in the given sphere of communication (Bakhtin, 1981, p. 271).

Not only does the utterance seek addressivity, it also has a chain-like nature, responding to previous contexts while anticipating a response from the one to whom they are addressed (Akhutina, 2003; Hermans, 1996, 1997; Holquist, 1983, 1990, 2014; Mkhize, 2004; Wertsch, 1990, 1991). The contextual nature of the utterance is the principal characteristic of the utterance (Akhutina, 2003). Occupying a definite position in the sphere of communication indicates that all utterances do not exist in a void; they are positioned within a culture and a historical space populous with past utterances, belonging to others,

that condition the nature of forthcoming utterances – which will become another speaker's past utterances (Akhutina, 2003; Bakhtin, 1986; Holquist, 1983; Jacobsen et al., 2010). Mkhize (2004) posits, therefore, that one can never fully own utterances as they are “already imbued with meaning, associated with the way they have been used historically within a given sphere of communication” (p. 65).

In the context of the current study, the assessed isiZulu-speaking child enters into a monologic engagement with past thinkers such as the theorists Spearman, Binet, Thurstone, Cattell, Horn, Carroll, Piaget and Wechsler. These theorists' utterances that define intelligence continue to influence the processes of test construction and psychological assessment, and completely ignore the influences of the child's spheres of communication. Psychological testing currently does not pay attention to the past utterances of the African isiZulu-speaking learner. The ISZSP does not use test items inspired by African artefacts, cultural symbols and objects in which isiZulu-speaking children would excel easily by virtue of their sociocultural position and familiarity with those objects (e.g., knowledge of livestock, knowledge of plants, knowledge of shapes, colours and patterns in indigenous art, etc.). It presents unfamiliar stimulus material, which puts the African child at a disadvantage. Consequently, the child's I-positions of “self as knower” and “self as known” are displaced, resulting in the child's positioning that extends to his or her relational, contextual and cultural background (Barresi, 2002; Hermans, 2001a, 2014; Hermans & Kempen, 1993; James, 1892) being ignored. For instance, a child may make reference to some of the cultural ways of doing in his or her community when addressing items in the ISZSP, such as those in the Comprehension subtest. Those ways of doing might be unique to that particular community. In its current form, the ISZSP does not recognize nor engage with any utterances that differ from the responses prescribed in its instruction manual. Thus, the link between the child's actual level of intellectual functioning and what is measured by the ISZSP is broken for the isiZulu-speaking child.

Adopting Bakhtin's utterance as the unit of analysis in this study thus focused on utterances, the real responsive-interactive units characterized by an exchange of points of view between the psychologist and the isiZulu-speaking child – as well as his or her background lifeworlds that constitute his or her horizon of understanding (Mkhize, 2004). In the context of the psychological assessment of children's intellectual functioning, the process itself is a Western-derived utterance, directed at the assessed child whose responsive understanding is sought. The one-on-one engagement with the child, in a secluded room, whereby the adult seeks answers from the child when it is apparent that

the answers are known to the adult, is foreign in some indigenous African contexts where children are not expected to engage in lengthy conversation with adults (Greenfield, 1997; Hevi, 2004). Thus I re-emphasize that currently the assessment process is already permeated with Western ways of doing, meanings and authorial points of view of what constitutes intelligence, which were derived in the past. The ISZSP is indeed infused with cultural assumptions, particular meanings, philosophies and value orientations drawn from Western historical precedents and the sociocultural context in which it was developed (Iversen et al., 2005; Patterson, 1997; Witkin, 1990, 2001).

The child's response to the utterance is then measured, evaluated and ranked against past utterances and responses of Western norms on which the test was standardized. To be deemed intelligent (according to the current standards of psychological testing), the results of the performance of the isiZulu-speaking child would have to be in agreement with these past utterances. However, according to Bakhtin (1986), utterances seek an addressee with whom they can not only agree, but also disagree. It is this position that the current study proposes, i.e., for the process of psychological assessment to be approached in a fully dialogical manner that would allow for such addressivity – for the addressee to be afforded an authorial platform where he or she can engage with the psychological process (as an utterance) in activities such as negotiation, agreeing and disagreeing (Akhutina, 2003; Bakhtin, 1986; Barani et al., 2014; Mkhize, 2004). I argue that this would fully demonstrate the child's intellectual capacity and potential development. Additionally, allowing for this dialogue would provide means for establishing what happens during the assessment process, when the African child is confronted by this alien utterance (the psychological test), in the hands of the African psychologist who has situated him/herself as a representative of that utterance, and how the psychologist and the Zulu child respond to this situation.

The responses given by the child and the counter-responses given by psychologists during assessment are also utterances borrowed from each of their spheres of communication. Psychologists bring forth utterances from their professional training background, which employ models and theories of psychology, which might differ from an African epistemological stance. This would present a dialogical knot, i.e., tension between the voices. Such models and theories are from a Western sociocultural history, imposed on the African child for whom there are distinctive utterances in which intelligence is conceptualized differently. The child's higher mental functions (such as thinking, reasoning and organizing) constitute not only the child's mind and voice, but they are also



populated with dialogue of multiple voices and utterances belonging to others in the African sphere of communication (Barresi, 2002; Hermans, 2002; Mkhize, 2004, 2005). The following section discusses how this dialogical knot is shown in the use of the authoritative and internally persuasive discourses.

### **3.2.5.2 The authoritative discourse and internally persuasive discourse.**

In analysing utterances, it is essential to also examine what Bakhtin coined: the *authoritative discourse* and *internally persuasive discourse*. The authoritative discourse represents monologism (Emerson & Holoquist, 1986; Morson & Emerson, 1990). It imposes one authorial truth that is solely upheld with an assumption that the hero is ignorant or wrong, without room for disagreement or deviation that might lead to transformation (Lensmire, 1997). It is branded with forceful impositions (Matusov & von Duyke, 2010), and it “demands that we acknowledge it, that we make it our own; it binds us, quite independent of any power it might have to persuade us internally” (Bakhtin, 1981, p. 342). It is characterized by hesitant speech reflecting the views of others, serving others' purposes, and the authority in these views is already acknowledged in the past – to be assimilated and accepted unconditionally as they are, internalized and becoming parts of the self (Bakhtin, 1981; Matusov & von Duyke, 2010; Mkhize, 2005).

The current study argues that the conventional psychological assessment of intellectual functioning employs an authoritative discourse, which imposes authorial control on the isiZulu-speaking children being assessed. It forces the child to perform in a manner that serves the purpose of the psychologist and the psychological test itself. It does not give room for them to bring in and explore new ideas and other truths that are demonstrative of intellectual functioning as acknowledged by the child's historical and sociocultural utterances. For instance, the ISZSP assumes that all isiZulu-speaking children would be familiar with the history or the notion relating to humans travelling to the moon, which is the utterance that carries the pride of the North American or European spheres. Giving an incorrect response has implications on the final IQ score obtained by the child. Whereas, having contextually relevant utterances in the ISZSP, for example, relating to knowing the history relating to the annual celebration of King Shaka Zulu in September, amongst others, would be more appropriate.

The internally persuasive discourse, on the other hand, is “half ours and half someone else's... it is creative, productive, representative of a furthering of meaning, open rather than indicative of a closed system, and it reveals new ways to mean (Bakhtin, 1981, p.

345). The internally persuasive discourse indicates a constructive environment of meaning-making, authorizing language to be concurrently social and individual. Mkhize (2005) stated that the internally persuasive discourse “involves a critical and selective appropriation of others’ voices in order to form one’s opinion” (p. 93). It is tightly interwoven with “one’s own word” (i.e., discourse); it is not finite, but open to different perspectives (Mortimer, 2005). *Ventriloquation* then occurs when an individual speaks through others’ voices, which may or may not be their own, assigning a point of view to their utterances (Bakhtin, 1991; Mkhize, 2005; Moen, 2006; Samuelson, 2009; Wertsch, 1991; Wortham, 2001). This is when individuals come to an understanding of themselves with regard to multiple voices in their cultural sphere of communication – appropriating, articulating and reflecting these voices in the way they speak for themselves when they engage in dialogical relationships (Bakhtin, 1981, 1991; Mkhize, 2005; Samuelson, 2009). This is demonstrated by the following example where psychological assessment is approached as a monologic act, dominated by the authoritative discourse:

When administering the *Similarities* subtest of the ISZSP, the psychologist would ask the child to tell them in what way two items they would name or mention are the same or alike. Using item 11 of the subtest again as an example, the two items are: “*Ubhanana, uphayinaphu [Banana, pineapple]*” The scores to the answers are awarded as follows: “**score of 3: Tropical fruits; score of 2: fruit; grow on trees; score of 1: can eat both; food; colour; sweet; tasty; must be peeled**” (Landman, 1988b, pp. 22-23). This answer is imposed as the one absolute authorial truth, assuming that if the addressee, i.e., the child, gives a different response, they would be wrong (Lensmire, 1997). When the child gives a different response, such as, “*banana is used to bake banana cake, and pineapple is used to brew traditional beer*”, this would be deemed wrong and awarded a score of 0 (zero), whereas according to the child’s experience and what is known to them, this answer is correct. The manual instructs the psychologist to ask the child to “try to think of some other way in which they [the items] are alike” if a wrong answer is given (Landman, 1988b, p. 19). The psychologist would then assume an authorial position in leading the child to accept that which is stipulated in the manual as correct. The child would then acknowledge and appropriate this utterance of the ISZSP to obtain a score of 3, 2, or 1.

In a polyphonic act, the child can position him/herself through the process where he or she adopts the voices of others in his or her historical and sociocultural sphere, and combine those voices with his or her own, in order to communicate his or her opinion. This

would consequently reveal new ways to meaning-making (Bakhtin, 1991; Renedo, 2010). In this way, the hero permeates the author with the hero's own authorial intent and worldview, uttering his or her own internally persuasive position. In other words, the hero assumes authorship, which allows his or her utterances to bring forth new forms of meaning (Bandlamudi, 1994; Holquist, 1983, 2002, 2009, 2014; Matusov & von Duyke, 2010; Mkhize, 2005; Moen, 2006; Tsitsipis, 2004).

Using the example mentioned above, approaching the psychological assessment process as a polyphonic act would mean that after the guided prompts by the psychologist, the child would reflect and consult utterances in his or her past sociocultural sphere of communication that mediated the development of his or her higher mental functions, and choose what those utterances have deemed as his or her truth. The child may engage in dialogue with the psychologist, negotiating and constructing new meaning, that indeed both the banana and pineapple are tropical fruits that grow on trees; they are both edible, yellow in colour, have a sweet taste and must be peeled before they are eaten.... *but they are also used in other ways, like baking a banana loaf and making traditional beer with pineapple.* In so doing, the child would ventriloquate and assign a new point of view to the utterances brought forth by the ISZSP; and the psychologist would have to accept the child's response as truth resultant from his or her background cultural lifeworld, reflecting his or her intellectual abilities. It is this engagement, this dialogue, that this study set out to explore in terms of how it takes place and what it entails, as well as what it leads to during the assessment process.

Consequently, with the internally persuasive discourse, the authority of the psychological test relating to its assumptions, measurement and ranking of IQ scores can be challenged. The openness to engagements in dialogic relations with other points of view would allow the isiZulu-speaking child (the hero) to eventually ventriloquate and emerge with a voice of his or her own, situated in his or her own social and cultural context (Bakhtin, 1981; Holquist, 2009; Matusov & von Duyke, 2010; Tsitsipis, 2004). The internally persuasive discourse would also allow the child (as hero) to move the psychologist and the psychological assessment process (the authors) away from understanding and indulging only the conventional Western epistemologies of intellectual functioning, and to come to new ways of meaning-making relevant to African Zulu children (Cocodia, 2014; Gonçalves & Salgado, 2001; Ho et al., 2001; Jacobsen et al., 2010; Matusov & von Duyke, 2010; Mkhize, 2005; Tsitsipis, 2004).

The authoritative discourse and internally persuasive discourse interact and collide to make new meaning in *heteroglossia* (Holquist, 1981, 2009), which can be explored through the analysis of the utterance (Bakhtin, 1984). Heteroglossia refers to the qualities of a language that are extralinguistic, but common to all languages (Bakhtin, 1991). It is the interconnectedness of conversation; a space where ventriloquation takes place, serving to express the hero's authorial intentions but in a refracted way (Bakhtin, 1981, 1984; Holquist, 2009; Rojo, 2009). It is also a blending of styles of discourse, of a diversity of voices and worldviews through language that generates an intricate unity from a hybrid of utterances. It is described by Bakhtin (1984) as a basic condition that governs the operation of meaning in any utterance. When the contradictory forces that emerge when the authoritative discourse and internally persuasive discourse collide in heteroglossia, it is the dialogic nature of language that enables the understanding of the newly constructed meaning (Holquist, 2009).

In the psychological assessment setting, the heteroglossic interaction between authoritative and internally persuasive discourses is an indispensable phenomenon, as it demonstrates that dialogic practices do not require an absolute renunciation of the authoritative role of the psychologist, but the psychologist is also required to subsume the assessed child's competing discourse (Holquist, 2009; Matusov & von Duyke, 2010). Therefore, psychological assessment cannot succeed as a monologic act where one discourse imposes itself on another, but would thrive as a polyphonic act.

### **3.2.5.3 National and social languages: The relations of dominance and subordination.**

In his work, Bakhtin constantly referred to different *social languages* within a single *national language*, and to varying national languages within a culture (Hermans, 2001a, 2002). He referred to national languages as traditional linguistic unanimities with coherent grammatical and semantic classifications (Bakhtin, 1981; Wertsch, 1991). IsiZulu is one of such national languages in South Africa.

According to Bakhtin (1981), a speaker always invokes social languages. Social languages are described as a "discourse particular to a specific stratum of society... within a given social system at a given time" (Hermans & Kempen, 1995, p. 107), and of which authoritative and internally persuasive discourses are a part that shapes the individual's voice (Bakhtin, 1981; Wertsch, 1991). As social languages, Bakhtin included group behaviours, languages of authorities, socio-political languages, professional terminologies, languages of generations and age groups, fashion languages, as well as

varying social dialects and vernaculars (Bakhtin, 1981; Hermans, 1996, 2001a, 2002, 2003, 2012; Hermans & Kempen, 1995; Mkhize, 2004).

Bakhtin (1981) argues that these languages coincide with and sometimes depart from the social stratification into genres, which are determined by variances amongst the forms of language and utterances used to convey meaning and socially significant worldviews. He posited that voices always exist in a social milieu, i.e., a speaker does not produce utterances in seclusion; whenever speakers produce their utterances, they always invoke a social voice, which signifies the social position of the speaker (Bhatia, 2012; Bakhtin, 1981; Chaudhary, 2008; Fogel, 1993; Hermans, 2002, 2003, 2012; Mkhize, 2004; Wertsch, 1991). The speaker is not always aware of the influence social languages have in shaping the speaker's utterances (Hermans, 2001a). Such influence is evident during the process of ventriloquation, where relations of dominance and subordination between different utterances surface (Hermans, 2001a, 2002; Ho et al., 2001; Samuelson, 2009).

With the constructions of dominance and subordination, certain utterances seek to dominate others in attempts to esteem certain social languages and social positions. For instance, the conventional psychological assessment process lacks multivoicedness, and does not pay attention to others' languages (social and national languages and speech genres). During the process of psychological assessment, utterances of the Western discourse on testing dominate other discourses, such as the African discourse, where it esteems only the Western conceptualization of intelligence and what constitutes intelligent behaviour, continuously submerging the lifeworld of the African child (Bhatia & Ram, 2001; Cocodia, 2014; Deary et al., 2010; Gonçalves & Salgado, 2001; Hermans & Kempen, 1993; Hermans, 1999; 2001a, Ho et al., 2001; Mkhize, 2004; Nisbett, 2010; Sterberg, 2004). Such dominance does not support the concept of a dialogical self. It deems other discourses subordinate to the Western discourse, thus failing to embrace psychological assessment as a dialogical scenery where African conceptions of intelligence would be considered in the assessment of intelligence of isiZulu-speaking children, bringing forth their intellectual strengths and abilities (Cocodia, 2014; Gonçalves & Salgado, 2001; Ho et al., 2001; Jacobsen et al., 2010; Salgado & Gonçalves, 2000, 2007).

Mkhize (2004) suggests that psychologists ought to have *dialogical reflexivity* which will allow them to critically engage with the voices entrenched in their practices – theories, methodologies and interventions – that are tangled with certain social languages. The current study emphasizes this, as psychologists enter into the psychological assessment

scene voicing a social language that is pervaded by utterances from their Westernized training, and imbued with social languages carried by the psychological test itself. Dialogical reflexivity will aid psychologists to approach psychological assessment in a manner that will allow them to understand and assess the intellectual functioning of isiZulu-speaking children meaningfully, taking into account the historical, cultural and social discourses that authorize and restrain the child's capability to think and act during the dialogical assessment act (Hermans, 2001a; Mkhize, 2004). It is the current study's supposition that dialogical reflexivity would aid psychologists to accept new social positions ventriloquated by the assessed children as they assume an authorial position such as that discussed in the example above (cf. p. 90 above). The dominance of the Western discourse would then be subdued by approaching the assessment process as a polyphonic act, providing a platform for the African discourse on intelligence to come to the fore. This would result in a dialogue between both the Western and African discourses through the psychologist and the assessed child as interlocutors in a negotiation, during which the roles of *psychologist as power holder* and *child as power subject* would alternate until a social language that best positions the child in demonstrating his or her intellectual abilities is ventriloquated (Hermans, 2001a).

### **3.3 The Assessment of Intellectual Functioning as a Dialogical Act**

Up to this point, drawing from Bakhtin's (1981) dialogism, the discourse I propose in this chapter highlights the dialogical nature of human functioning. I support the philosophy that human existence is dialogical and concur with Hermans et al.'s (1992) notion of the dialogical self. I deduce that as the African self is synonymous with the dialogical self, the intellectual functioning of an African child is, likewise, dialogical. As Ramose (2002) argued, intelligence is the aptitude by which the African dialogical self "acts and interacts with others and their worlds... It is the faculty by which the self judges, appreciates, relates to and harmonizes with other beings in the world (p. 41). I argue, henceforth, that the assessment of intelligence in isiZulu-speaking children should be approached as a dialogical process.

As indicated above, psychological practice has been mainly influenced by Cartesian assumptions of the self (Hermans; 2003, Markus & Kitayama, 1994; Mkhize, 2005). Consequently, conventional psychological assessment has, for a long time, espoused a solipsistic view of the self, which is finalized and completed external to the social world (Descartes, 1637/1997; Mohammed, 2012; Sorell, 2001), only to be brought to the fore through testing. On the other hand, as highlighted earlier, the dialogical self is an

unfinalized product – whose responsiveness is certainly not final – always open to new prospects, always shaped and constantly amendable by others in social and dialogical relationships (Holquist, 2009, 2014; Jacobsen et al., 2010; Mkhize, 2004; Ooi, 2013; Vygotsky, 1978, 1986). This study takes the position that in addition to evaluating the level of intellectual functioning, psychological assessment as a dialogical process ought to mediate this unfinalizability as well as the continuous shaping and adaptability of the isiZulu-speaking child in order to obtain a fair measure of his or her intelligence.

This would have implications for the psychologist and the position that he or she would take during assessment. The psychologist would have to have dialogical reflexivity (Mkhize, 2004), and analytically engage with utterances embedded in themselves as persons, themselves as psychologists, as well as with utterances embedded in the Zulu child's lifeworld, the psychological test and the methodology to be adopted to facilitate the assessment process. This is crucial as the process would provide the space for dialogue for the background lifeworlds of both the psychologist and the Zulu child – space in which the interplay between both backgrounds contribute to how meaning would be negotiated in light of linguistic demands, communicative practices, and the assumptions that are imbued in the psychological test and the assessment process itself (Greenfield, 1997; Kwate, 2001; Lacroix, 2008; Levine, 1997; Mkhize, 2005).

In approaching psychological assessment as a dialogical process, the relations of dominance and subordination of social languages and utterances between the psychologist and the assessed child should be treated delicately. The current study intended to study how these relations of dominance and subordination manifest and how the tester and testee respond to them. The differences in power and how meaning is negotiated between the psychologist and the assessed child may be understood in the following way:

In the present approach, the psychologist is seen as an expert in theory and methodology and has experience and knowledge about a broader array of people, groups and communities. The participants, on the other hand, are considered to be experts in the meanings that they give to the events in their own lives and as knowledgeable about the particular circumstances and events that play a major role in their personal history (Hermans, 2001b, pp. 340-341).

Relating what Hermans (2001b) postulated (above) to the dialogic process of psychological assessment, the utterances and worldviews of both the psychologist and

the child would be treated with respect since they are equally authentic (Bakhtin, 1984; Sidorkin, 1996). They would engage in a dialogic meaning-making process where the psychologist would esteem the expertise of the child and provide him or her with a platform to ventriloquate and author his or her worldview in a manner that reflects his or her socially mediated intelligence – as conceptualized by utterances in his or her history and sociocultural background (Bakhtin, 1984; Hermans, 2001a, 2001b; Bandlamudi, 1999; Brown & Renshaw, 2006; Emerson & Holquist, 1986; Gonçalves & Salgado, 2001; Holquist, 1990; Mkhize, 2004, 2005; Morson & Emerson, 1990; Sidorkin, 1996).

This would require the process of assessment to be collaborative as opposed to the traditional manner in which it is presently. Through the collaboration the child would bring to the fore the content of what the assessment evaluates and would assist the psychologist to understand its meaning (Hermans, 2001b). The psychologist, therefore, would acquire a measure of the child's intelligence that is truthfully reflective of his or her capabilities. Moreover, to achieve this relies heavily on subduing the authorial power of the psychologist and the assessment tool used, since the "meaning of the valuations is more the product of the methodological expertise of the psychologist" (Hermans, 2001b, p. 342). The child's intellectual profile would be born through this collaboration between the expertise of the psychologist and that of the child, where the expertise of the psychologist increases the ability of the child to generate meaning while maintaining his or her position as both hero and author of his or her own life in that context.

Gonçalves and Salgado (2001) expressed the view that psychology has been constructing authoritarian tools to evaluate, assess and control clients for a long time. They advocated the development and use of more collaborative psychological tools that would recognize and acknowledge the nature of the dialogical self (Gonçalves & Salgado, 2001). This current study corroborates this proposition by way of qualitatively evaluating the cultural and linguistic appropriateness of the ISZSP that is used to assess the intellectual functioning of isiZulu-speaking children, and how the psychologist and the assessed child negotiate the assessment process.

Utterances that surface during the administration of the ISZSP take different forms of communication and language, i.e., verbal, non-verbal, stillness, social and interactive (Bakhtin, 1981, 1984; Gonçalves & Salgado, 2001; Salgado & Gonçalves, 2007; Greenfield, 1997; Hermans, 2001a, 2002; Holland, 2000; Kwate, 2001; Lacroix, 2008; Levine, 1997; Meltzoff & Moore, 1994; Menkiti, 1984; Rochat, 2000; Rochat et al., 1999). Thus, the ISZSP



should also have dialogue-enabling features that acknowledge the history as well as the sociocultural and linguistic contexts of the assessed child.

### **3.4 Conclusion**

In this chapter, my argument for a dialogic view of human existence, drawing from Bakhtin's (1981) dialogism, has supported the proposed shift from a Western, solipsistic, Cartesian view of the self to the relational, dialogic view of selfhood which is more suitable for the psychological assessment of an African child. I have argued for a view of intellectual functioning and the assessment thereof that is dialogical, where the multiplicity of the selves would be acknowledged as well as different forms that come into play each time the self engages in a dialogic act. This argument supports the Bakhtinian analysis of the cultural and linguistic appropriateness of the ISZSP.

Drawing on key concepts of Bakhtinian philosophy, the central issue for this study is the way psychological assessment is performed and understood either as a monologic or a dialogic act. The next chapter gives an account of the Bakhtinian methodological apex of the study, with the utterance as the unit of analysis; the examination of the interplay between national and social languages; and the analysis of power relations regarding the authoritative and internally persuasive discourses. The chapter also discusses the ethical issues that I considered and addressed throughout the study.

## CHAPTER 4

### THE ASSESSMENT OF INTELLIGENCE AMIDST CULTURAL AND LINGUISTIC DIVERSITY

*All the diverse areas of human activity involve the use of language. Quite understandably, the nature and forms of this use are just as diverse as are the areas of human activity (Bakhtin, 1986, p. 60).*

#### 4.1 Introduction

This chapter presents a review of empirical literature on the psychological assessment of culturally and linguistically diverse children. It begins with a cultural and linguistic profile of South Africa, with a special focus on the province of KwaZulu-Natal. The literature on intelligence testing in diverse cultural contexts, and the challenges thereof, follow. The translation of intelligence tests as a means address cultural and linguistic bias has been found to present challenges. This is due to the fluidity and dialectal variations of languages, as well as the inability to transport cultural values and assumptions from one test to another. Translated tests, such as the ISZSP, do not take this into account, which leads to unfair psychological practice.

#### 4.2 Cultural and Linguistic Diversity within the South African Context

South Africans have existed for centuries as a population with shared customs, traditions, and other distinct cultural traits including bonds of language (Edwards, 2000). Language is a significant component that symbolizes the quintessence of its culture (Pedersen, Dragun, Lonner & Trimble, 2002). Several scholars have defined culture as the shared set of learned customs, values, meanings, and knowledge – including language, social organization, experiences, means of thinking, feeling and patterns of behaviour – communal to members of a society (Ardila, 2005; Cocodia, 2014; Harris, 1983; Mushquash & Bova, 2007; Marsella & Yamada, 2000; Thomas-Presswood et al., 1997). These shared meanings and customs assign a cultural identity to a society, which is socially transmitted from generation to generation (Mushquash & Bova, 2007).

With nine provinces and a population of approximately 55.6 million people (South African Institute of Race Relations [SAIRR], 2015; Statistics South Africa [Stats SA], 2016), South Africa, commonly known as the *rainbow nation*, is branded by a diversity of cultures and traditions. Owing to its diversity of ethnic groups of Black African (80%), Coloured (9%), Indian (3%) and White (8%) communities, there is not a sole cultural identity (Edwards, 2000; Jinabhai et al., 2004; SAIRR, 2015; Stats SA, 2016). The diverse cultural identities include the

European (comprising the English-speaking and Afrikaners), Asian (Indian) and Black African cultures (Shea, 2007; Wilson & Thompson, 1969). For the Black African ethnic groups, the Nguni (comprising the Zulu, Xhosa, Ndebele and Swati people) forms a major part. Following are the Sotho-Tswana (Southern, Northern and Western Sotho), Shangaan-Tsonga and the Venda ethnic groups (Shea, 2007; Wilson & Thompson, 1969).

Moreover, South Africa has eleven official languages, viz., two European languages (English and Afrikaans<sup>4</sup>) and nine Bantu languages, i.e., four Nguni languages (Zulu, Xhosa, Swati and Ndebele); three Sotho-Tswana languages (Sepedi, Sesotho, Setswana), Tshivenda and Xitsonga (RSA, 1996; Ncoko, Osman & Cockcroft, 2000; Ndebele, 2012; Ngcobo, 2013; Shea, 2007). South Africa's language diversity is sustained by the language provisions of the South African Constitution, which enshrine multilingualism (Bamgbose, 2003; Broeder, Extra, & Maartens, 1998). According to the last national census data, isiZulu was reported to be the first home language for 22.7% of the population (Stats SA, 2012). This was followed by isiXhosa at 16%, Afrikaans at 13.5% and English at 9.6% (Stats SA, 2012)<sup>5</sup>.

Looking at the statistics of Black Africans reporting on their first language, isiZulu was accounted for by 28.5%, followed by isiXhosa at 20.1%, English at 2.9% and Afrikaans at 1.5% (Stats SA, 2012). English was reported as the main home language by only 2.9% of Black Africans in the country, yet an increase in the use of English among Africans has been documented. This increase is attributed to the preference for English language education among parents and students; the perception of English as an empowerment device and the language of upward mobility; and the acceptance of English as the dominant language of business and public lifeworldwide (Bangeni & Kapp, 2007; Broeder et al., 1998; Dalvit & De Klerk, 2005; De Klerk, 2000; De Kadt, 2002, 2005; Deumert, 2006, 2010; Engelbrecht, Shangase, Majeke, Mthembu & Zondi, 2010; Kamwangamalu, 2000, 2003; Mkhize, 2013; Mkhize, Dumisa & Chitindingu, 2014; Posel & Zeller, 2015; Probyn, 2009; Rudwick, 2008; Wright, 2002). Posel and Zeller (2015) report that this increase in English use by Black Africans indicates bilingualism – a language shift towards English in South Africa, in which English is spoken alongside an African mother tongue.

The current study was conducted in the province of KwaZulu-Natal which, according to

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<sup>4</sup> This thesis did not intend to engage in the debate about Afrikaans being an African language.

<sup>5</sup> The Stats SA 2016 community survey report did not include language statistics. Therefore, the language statistics presented in this thesis are based on the Stats SA's report of the national Census 2011, which was published in 2012. The next national census will be conducted in the year 2021.

the the last national census data, has a population of 10 694 434 people, of whom approximately 86.5% are Black Africans (SAIRR, 2015; Stats SA, 2012). IsiZulu is concentrated in KwaZulu-Natal, and it is widely spoken as a first language by approximately 77.8% of the population within the province (PanSALB, 2000; Stats SA, 2012). Black African children within the age range of the ISZSP (i.e., 9 years to 19 years, 11 months) constitute approximately 21% of the KwaZulu-Natal population. As it has been observed that some isiZulu speakers are proficient in English at varying levels (Bangeni & Kapp, 2007; Broeder et al., 1998; De Klerk, 2000; De Kadt, 2002; Kamwangamalu, 2003; Deumert, 2006, 2010; Mkhize, 2013; Posel & Zeller, 2015; Rudwick, 2008; Stats SA, 2012; Van Dulm, 2007), it can be deduced that some isiZulu-speakers are bilingual in KwaZulu-Natal (Mkhize, 2013; Ncoko et al., 2000; Ndimande-Hlongwa & Ndebele, 2014; Posel & Zeller, 2015).

Rudwick (2008) alerts us that even though the speech of some isiZulu-speaking people in KwaZulu-Natal is characterized by isiZulu-English code switching, the levels of English proficiency vary owing to the level and quality of education received. There are also isiZulu monolingual speakers in the province, particularly among the older generation and some young members of families (Rudwick, 2008). Even though isiZulu that is widely spoken in KwaZulu-Natal is characterized by a substantial amount of English interference in the form of lexical borrowings, it is still maintained as the mother tongue (Ncoko et al., 2000; Rudwick, 2008). The section that follows discusses further isiZulu-English code switching and bilingualism as the outcome of language contact.

### **4.3 Language Shift, Bilingualism and IsiZulu-English Code switching**

The British colonized the province of KwaZulu-Natal in the 1820s; the province was the settlement of Port Natal at the time (Ballard, 1989). This colonization resulted in the building of Christian and English-medium mission schools in the 19<sup>th</sup> century, which marginalized African languages and indigenous knowledge systems, and deemed them inferior to European languages (Ballard, 1989; Mkhize et al., 2014; Rudwick, 2008; Webb, 2002; Zeleza, 2006). The distorted view that speaking English would lead to people being civilized was apparent when the colonizers forced Black Africans in the province to use English in places of schooling and work (Ballard, 1989). Black African children received education in British-style mission schools with English as a *lingua franca*. Consequently, an elite of English-speaking Zulus, referred to as Black Englishmen, emerged; and a division between English-speaking Zulus and isiZulu-speaking monolinguals was evident (De Klerk & Gough, 2002). However, some of the schools in KwaZulu-Natal townships maintained the use of

isiZulu as the language of learning and teaching (LoLT<sup>6</sup>) and as a compulsory language subject (Ballard, 1989; Broeder et al., 1998; Hartshorne, 1992; Posel & Zeller, 2015; Rudwick, 2008; Webb, 2002).

Several laws and other documents governing the LoLT and the education of Black Africans were documented and published over the years. These include the Bantu Education Act (No. 47 of 1953), the Education and Training Act (No. 90 of 1979), the National Education Policy Act (No. 27 of 1996), the South African Schools Act (No. 84 of 1996), the Language in Education Policy of 1997, the Education White Paper 6 of 2001, the Language Policy Framework of 2001, and the Language Policy for Higher Education – to mention but a few (Council on Higher Education [CHE], 2001; DAC, 2003; DoE, 1996a, 1996b, 1997, 2001, 2002; RSA, 1953, 1979). These pieces of legislation, and the other documents, reflect a move away from the segregation of different racial groups and the hierarchical organization of South African society (De Klerk, 2000). They also reflect a move away from imposing English and Afrikaans as the only LoLTs (Hartshorne, 1992; Rudwick, 2008; RSA, 1953, 1979). This move steered towards the encouragement of the use of the mother tongue as the LoLT in the Foundation Phase of education (Grade 1 to Grade 3), alongside the acquisition of English as a second language (Brock-Utne, 2013; Brock-Utne & Holmarsdottir, 2004; DAC 2003; DoE, 1997; Department of Basic Education [DBE], 2010, 2013; Probyn, 2009; Plüddemann, 2010; Webb, 2002). English is now the LoLT from the Intermediate Phase of education (from Grade 4) through to higher education (DBE, 2010; DoE, 1997) (CHE, 2001; DAC, 2003; DoE, 2001).

It must be noted that research has shown that there are some Black Africans in KwaZulu-Natal (and in South Africa as a whole) who have not been formally schooled, but are bilingual owing to, for instance, employment in domestic settings where English is the sole medium of communication (Ballard, 1989; Broeder et al., 1998; Rudwick, 2008). This language shift and contact of isiZulu with English and/or Afrikaans reinforces bilingualism in isiZulu-speaking individuals (Kamwangamalu, 2003; Mkhize, 2013; Offiong & Okon, 2013; Posel & Zeller, 2015; Rudwick, 2008).

Bilingualism is an outcome of language contact that occurs when speakers of different languages meet and arrive at some comprehension and some level of competence in each other's languages in order to converse (Asbjørnsen, 2013; Calteaux, 1994; Manfredi

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<sup>6</sup> LoLT is the language of learning and teaching, otherwise referred to as the medium of instruction in schools (DBE, 2010; Ntombela & Mhlongo, 2010).

et al., 2015; Myers-Scotton, 2002, 2006). When speakers competently alternate between two languages, they would have become bilingual (Calteaux, 1994), which is currently common globally (Oliden & Lizaso, 2014). Bilingualism has been defined as the regular use of two languages, and bilinguals are those people who need to use two languages in their everyday lives (Bethlehem et al., 2003; Myers-Scotton, 2006).

As noted above, research indicates that levels of English proficiency of isiZulu bilingual speakers in KwaZulu-Natal vary (Rudwick, 2008). These variations depend on the languages that bilinguals are exposed to, the quality of education that the bilinguals receive, the timing of first being exposed to a second language, the amount of second language exposure, the duration of language exposure, and the context of language exposure (Asbjørnsen, 2013; Bialystok & Craik, 2010; Holowka, Brosseau-Lapre, & Petitto, 2002; Petitto et al., 2001; Rudwick, 2008).

Studies have shown that while isiZulu is both the mother tongue and the language of preference for some of the Zulu population in KwaZulu-Natal, they tend to switch to English in their casual, everyday conversations, displaying a unique mixture of isiZulu and English (Magagula, 2009; Ncoko et al., 2000; Ndebele, 2012; Ndimande-Hlongwa & Ndebele, 2014; Rudwick, 2008). It has been documented that bilingualism involves lexical borrowing. In the context of this study, lexical borrowing would provide for the loaning of English and Afrikaans words, and changing the spelling to sound more natural in isiZulu (Ngcobo, 2013; Offiong & Okon, 2013; Schnoebelen, 2005; Spolsky, 1998; Skiba, 1997). Lexical borrowing occurs mostly for words that do not exist in isiZulu, but also for some that do exist (Magagula, 2009; Ngcobo, 2013). For example, the English word "window" has been used as "iwindi"; the Afrikaans word "venster" has been loaned as "ifasitela" to refer to a window, as there is no Zulu original word for it. The second example is the English word "key", which has long been used in isiZulu speech acts as a loanword, "ukhiye", in the place of the original Zulu word "isihluthulelo". There are approximately 50 loanwords that are used in the ISZSP. A few examples of these are:

lbhala (excluded "wheel" and changed "barrow" from *wheelbarrow*); isitaladi (from Afrikaans *straat*); ifulegi (from *flag*); ubheseni (from *basin*); iholide (from *holiday*); ibhola (from *ball*); ifasitela (from Afrikaans *venster*); ingilazi (from *glass*); isitofu (from Afrikaans *stoof* – English *stove*); amathayi (from *tires*); irabha (from *rub*); edamini (from *dam*); umabula (from *marble*); irediyo (from *radio*); uthelefonti (from *telephone*); iyembe (from Afrikaans *hemp*); izitini (from Afrikaans *steen*); ubhanana

(from *banana*); uphayinaphu (from *pineapple*); itafula (from Afrikaans *tafel*); u-anyanisi (from *onion*); amablokwe (from *blocks*); amasenti (from *cents*); ama-apula (from *apples*); and u-ayisikhilimu (from *ice cream*).

Lexical borrowing results in the integration of the loanword into isiZulu and coining it as a new “Zulu word” that gets institutionalized with daily use from generation to generation (Cook, 2013; Benjaminson, 2012; Ngcobo, 2013; Offiong & Okon, 2013). Lexical borrowing plays one of the vital roles in bilingualism, as loanwords have become parts of the daily speech of isiZulu-speaking bilinguals (Magagula, 2009; Mathonsi, 2011; Ndebele, 2012; Ngcobo, 2010, 2013; Schnoebelen, 2005).

Bilingualism also involves code switching – the switching of two languages within and between utterances – either intersentential or intrasentential – involving phrases or words or parts of words (Backus, 2005; Ferrett, 2011; Manfredi et al., 2015; Myers-Scotton, 2002, 2006; Myslín & Levy, 2015; Ndimande-Hlongwa & Ndebele, 2014; Ngcobo, 2013; Offiong & Okon, 2013; Spolsky, 1998). Code switching permits new words from the second language to be introduced to the first language, and the spontaneous use of those words interchangeably in both languages (Bwenge, 2007; Manfredi et al., 2015). Below is a couple of examples of isiZulu-English code switching and lexical borrowing:

**Intra-sentential code switching:** Ngizofika today ngizo type-a onke amagama ezingane ezisek'lasini lakho. [I will come *today* to *type* all the names of the children *in your class*.]

**Inter-sentential code switching:** Umcimbi uzoqala ekuseni kakhulu kusasa. Please don't be late. [The ceremony will start very early tomorrow morning. *Please don't be late*.]

With code switching in isiZulu-speakers, isiZulu and English do not merely coexist, but both are integrated into unitary communicative events and speech acts (Backus, 2005; Myslín & Levy, 2015; Ndimande-Hlongwa & Ndebele, 2014; Rudwick, 2008). This means that bilingual Zulus possess a single conceptual pool shared by both isiZulu and English languages. Thus, during code switching, language choice becomes an automatic psycholinguistic function for them where they would select the language in which the preferred word first comes to mind (Backus, 2005; Bwenge, 2007; Ferreira, 2010; Ferreira &

Slevc, 2007; Gollan & Ferreira, 2009; Levelt, 1999; Manfredi et al., 2015; Millett, 2010; Myslín & Levy, 2015; Ndimande-Hlongwa & Ndebele, 2014; Offiong & Okon, 2013).

Bilingualism in children has been found to enhance the development of many intellectual skills. Albert and Obler (1978) conducted studies that investigated the functioning of the bilingual mind. From their findings they concluded that:

Bilinguals mature earlier than monolinguals both in terms of cerebral lateralisation for language and in acquiring skills for linguistic abstraction. Bilinguals have better-developed auditory language skills than monolinguals, but there is no clear evidence that they differ from monolinguals in written skills (p. 248).

Recent research has also shown that the cognitive advantages for bilingual children include enhanced cognitive flexibility, stronger attentional and executive control, greater metalinguistic awareness, enhanced creative skills and the awareness that one problem can have several acceptable solutions (Asbjørnsen, 2013; Bialystok, 2007; Costa, Hernández, & Sebastián-Gallés, 2008; Cummins, 1975, 1977; Duffy & Wong, 2003; Lauchlan, Parisi & Fadda, 2012; Millett, 2010). These intellectual skills develop faster in bilinguals than in monolinguals (Albert & Obler, 1978; Bialystok, 2001, 2007; Bialystok, Craik, & Luk, 2012; Costa et al., 2008; Cummins, 1977; Kaur, 1997). This advantage is attributed to "the fact that bilinguals are in possession of two active language systems at all times, which enables them to make decisions which reflect metalinguistic awareness and cognitive flexibility" (Asbjørnsen, 2013, p. 10).

All these factors are very important to consider when assessing the intelligence of bilingual children because it would not be fair to assess a bilingual child in one language without placing the assessment in the full context of his or her language abilities and proficiencies in each language (Asbjørnsen, 2013; Backus, 2005; Bethlehem et al., 2003; Bialystok & Craik, 2010; Duffy & Wong, 2003; Millett, 2010; Myers-Scotton, 2006; Oliden & Lizaso, 2014). Regrettably, in South Africa, this is not common practice as psychologists incline to assess bilingual children purely in the language of the test (Bethlehem et al., 2003; Mdlalo, 2013). Moreover, there is currently no test available for assessing bilingual learners. This might pose challenges relating to cultural and linguistic bias. The current study posits that all these elements should be taken into account and factored into practice when assessing the intellectual functioning of isiZulu-speaking children using the ISZSP. The environment in which these children are raised and schooled is neither purely Zulu nor purely English. As a



result of the shift in spoken language, they no longer communicate in the classical isiZulu which seems to have been retained in some parts of the test.

Current literature on code switching and bilingualism demonstrates the gap between the nature of the current spoken isiZulu and the language of assessment. This gap prompted the inception of the current study in order to explore how cultural and linguistic challenges manifest and are addressed during the administration of the ISZSP. Given the fluid and evolving nature of all languages, it is important to also deliberate on how dialectal variations of isiZulu may have an influence during the assessment of isiZulu-speaking learners.

#### **4.4 The Fluidity and Dialectal Variations of isiZulu**

Language fluidity refers to the evolving of language over time owing to outside forces (Benjaminson, 2012; Labov, 2001; Mufwene, 2014; Wright, 2008) such as education, social conditions, place of origin, migration, urbanization, exposure to the media, and integration with other languages and cultures, resulting in alterations to lexicons and morphology (Calteaux, 1996; Ferrett, 2011; Magagula, 2009; Rudwick, 2008). The changes that occur to linguistic structures of a language owing to language fluidity are maintained as that language is passed on from generation to generation (Manfredi et al., 2015; Mufwene, 2014; Wright, 2008). Benjaminson (2012) explains that children learn the "pidgins", i.e., the dialects and lingo that their parents and community members speak, which are later transformed and integrated into the mother tongue. Owing to language contact that is born from the mixing of African languages with European languages, children inherit linguistic features and behaviours of both languages (Benjaminson, 2012; Croft, 2000; Labov, 2001; Mufwene, 2014). This implies that if a child grows up in a bilingual community, he or she inherits bilingualism and the changes that take place in linguistic behaviours and speech acts of that particular time.

As it has been observed from the discussion above, the fluidity of isiZulu has allowed for integration with many English words, a language variation resulting in bilingualism and particularly high levels of acculturation, lexical borrowing (loanwords) and code switching, which change the lexical and morphological structures of isiZulu (Alexander, 2003, 2011; Magagula, 2009; Mokgwathi, 2011; Ndimande-Hlongwa & Ndebele, 2014; Ngcobo, 2013; Rudwick, 2004). This language contact and lexical borrowing does not occur in the same manner in all regions of KwaZulu-Natal as various isiZulu-speakers classify

loanwords differently, which results in regional dialectal variations of isiZulu (Alexander, 2003, 2011; Calteaux, 1996; Cook, 2013; Downing, 2001; Grégoire et al., 2008; Khumalo, 1981, 1982; Labov, 2001; Magagula, 2009; Mufwene, 2014; Ngcobo, 2013). These regional dialectal variations reflect the interactional histories of isiZulu and English speakers that have been detailed above. Mufwene (2014) notes that changes affecting some dialects may not affect others because languages do not change uniformly – the change is dependent on the languages of the interacting speakers, the use thereof, and the contextual developments that take place, e.g., urbanization.

Studies have been conducted to investigate regional dialectal variations, and specifically the distinction between standard and non-standard isiZulu (Calteaux, 1996; Downing, 2001; Magagula, 2009; Singleton, 2000). Standard isiZulu refers to the dialect which is generally found in printed books and newspapers. It is the isiZulu dialect used in the education system, where it is used for most written and formal spoken purposes (Hudson, 1980; Jahr & Janicki, 1995; Mackey & Ornstein, 1979; Poole, 1999). It is also found in isiZulu dictionaries and books that explain isiZulu proverbs, idiomatic expressions, culture and customs, and grammar (Lafon, 2005; Mathonsi, 1994; Nkosi & Msomi, 1992; Nyembezi, 1956, 1992; Shange, 1953). Furthermore, standard isiZulu refers to the official language of the Zulu nation as standardized by a government-appointed authoritative language body, and employed by professional isiZulu writers (Magagula, 2009; Mathonsi, 1994; PanSALB, 1995). The standardization process of isiZulu involved prescribing: the appropriate grammatical constructions of isiZulu, how isiZulu should be spelt and written (its orthography), how its sounds should be pronounced, and which words are acceptable in formal situations (Extra & Maartens, 2004; Webb & Sure, 2000). The first language boards were constituted in South Africa during the late 1950s. At the time, it was the central Bantu Language Board, headed by Afrikaners, that steered the standardization of isiZulu. Later, in 1977, this Board was replaced by independent language boards for each South African language, which were led by native language speakers (Extra & Maartens, 2004). In 1995, a year after the democratic elections, the language boards were dissolved and the Pan-South African Language Board (PanSALB) was established in terms of the Pan-South African Language Board Act (No. 59 of 1995, amended as the PanSALB Amendment Act of 1999) (RSA, 1999). The PanSALB was established according to the Constitution of the Republic of South Africa to standardize, promote and create conditions for the development and use of all official languages, and to promote and ensure respect for all languages commonly used by communities in South Africa (PanSALB, 2007).

On the other hand, non-standard isiZulu refers to a regionally and socially defined dialect of isiZulu (Calteaux, 1996; Cook, 2013; Magagula, 2009; Makoni, Smitherman, Ball & Spears, 2003; Zungu, 1995). It is used in daily conversations in informal settings (Alexander, 2003, 2011; Calteaux, 1996; Ferguson, 1959; Gumperz, 1964, 1982; Li, 2004; Wei, 2007). The language variations of non-standard isiZulu stem from language contact as an outcome of social developments (Calteaux, 1996; Cook, 2013; Extra & Maartens, 2004; Magagula, 2009; Makoni et al., 2003; Mathonsi, 1994; Zungu, 1995).

Research indicates that the distinctive use of standard and non-standard isiZulu is related to cultural conditions, geography, industrialization and urbanization (Calteaux, 1996; Extra & Maartens, 2004; Mufwene, 2014; Singleton, 2000). According to Dosanjh and Ghuman (1998) people who encounter more than one culture in everyday life are most likely to adopt aspects of those cultures, including language. They live in between cultures, and consequently, certain aspects of the experienced cultures become fused together (Dosanjh & Ghuman, 1998; Husain & O'Brien, 2001). This is essential to factor with the assessment of isiZulu-speaking children, for the process to be fair and contextually relevant.

Research has also indicated that as a consequence of living in between cultures and the fluidity of language, isiZulu has evolved over the years (Calteaux, 1996; Cook, 2013; Extra & Maartens, 2004; Magagula, 2009; Makoni et al., 2003; Mkhize, 2013; Ngcobo, 2010, 2013; Zungu, 1995). Zulus refer to standard isiZulu as *isiZulu esijulile*, which means deep isiZulu; some refer to it as *isiZulu phaqa/sangempela*, meaning real isiZulu (Calteaux, 1996; Cook, 2013; Magagula, 2009). Non-standard isiZulu is referred to as *isiZulu sasedolobheni*, translated as urban isiZulu or *isiZulu esintengayo*, which is weak isiZulu (Calteaux, 1996; Cook, 2013; Magagula, 2009). The standard isiZulu is reportedly spoken in rural areas of KwaZulu-Natal, while non-standard isiZulu is reportedly spoken in urban and township areas (Calteaux, 1996; Magagula, 2009; Makoni et al., 2003).

As it can be noted from these descriptions, the dialects of standard isiZulu are linguistically closest to the rural habitats, while the non-standard dialects represent the modernism and relative affluence of the urban habitats (Deumert, 2005; Martin, 1996; Mesthrie, 2002). Owing to their high exposure to English and Afrikaans, urban dialects of isiZulu contain an unlimited amount of lexical borrowing from these languages, as well as frailty from code switching to and from these languages, which all swerve away from standard isiZulu (Deumert, 2005; Magagula, 2009). The findings of the studies conducted by Calteaux

(1996) and Magagula (2009) indicated that non-standard isiZulu dialects are perceived as diluted owing to lexical borrowing and code switching as a result of the influence of multicultural and multilingual contexts of urban and semi-urban areas, inclusive of townships. It is notable that the ISZSP is used for assessing isiZulu-speaking children without taking into cognisance their rural or urban origin. It is crucial to explore this gap, particularly because with the absence of the Part I manual, it is not known whether the norms of the ISZSP cater for regional dialects of isiZulu.

Another interesting finding from previous research pertains to the relationship between age-group differences and regional dialects. It has been found that the language spoken mostly by the youth in some regions of KwaZulu-Natal, especially in townships and urban areas, is characterized by lexical borrowing and code switching in isiZulu, English and Afrikaans, which makes the language they speak to be detached from the deep, standard isiZulu (Zungu, 1995). Magagula (2009) similarly found that there appears to be intergenerational differences in the use of isiZulu variations in some regions of the province. The findings of her study indicated a correlation between age and the use of the standard or non-standard isiZulu. The findings indicated that the older participants used deeper dialects of isiZulu, while the younger participants largely used modernized dialects (Magagula, 2009). Additionally, she found that communicating in non-standard isiZulu was accompanied by challenges in the education of younger isiZulu-speaking learners as reported by educators. IsiZulu-speaking learners who reside in townships and in urban areas were found to blend non-standard isiZulu with standard isiZulu in their speech as well as in their formal written schoolwork (Magagula, 2009). Their academic work was commonly characterised by frequent usage of English lexical borrowings, combined with certain changes such as prefixal and suffixal interferences, such as *ngi-crossnight-he* instead of *ngingalali kuze kuse* (crossnight); *ama-lessons* instead of *izifundo* (lessons); and *ukusaphotha* instead of *ukusekela* (support), among others (Magagula, 2009).

These findings imply that the younger isiZulu-speakers' language is greatly influenced by English, and, in some cases, Afrikaans, to the extent that non-standard isiZulu has become their "normal" isiZulu, which they use to communicate in daily speech activities and communicative events. Also, isiZulu-speaking children residing in various regions of KwaZulu-Natal are accustomed to various dialects based on their historical and sociocultural backgrounds. Therefore, those referred to psychologists for intellectual assessment will enter into the assessment process with isiZulu regional dialects that form their cultural and linguistic identity. As the ISZSP was intended for the assessment of

children and the younger youth, there will be children who are not familiar with and do not understand the standard isiZulu of the ISZSP, and this will result in poor performance and a low IQ score which would not truly reflect their intellectual abilities. Similarly, isiZulu-speaking psychologists who use the ISZSP in their practice also come from different regions, accustomed to different Zulu dialects. This may have implications for how they understand the tool, and how they administer it. It is such a realisation that called for a qualitative investigation of how the psychologists and assessed children adapt to such circumstances as presented by the ISZSP. The study therefore explored the strategies that psychologists implement to make communication meaningful in the context of linguistic differences. In light of the above discussion, the following section presents empirical literature pertaining to testing intelligence in bilingual learners.

#### **4.5 The Psychological Assessment of Intellectual Functioning in Bilingual Learners**

Since the construction of the first intelligence test by Binet in 1905, intellectual assessment has always been embedded in a theoretical framework. It is crucial for that framework to be relevant to the context of assessment and the learner's social and cultural background. Intelligence tests were originally constructed to distinguish those with intellectual deficits from those who were intellectually superior. The aim was to develop programmes to assist those with learning challenges, rather than to exclude them (Kaufman, 2000). Intelligence tests then evolved to become broadly conventional instruments used to determine special education placement, diagnosis and target intervention (Kaufman, 2000; Valencia & Suzuki, 2001). There has then been a re-emergence of a heated debate about the extent to which measures of intelligence are culturally and/or linguistically biased (Ardila, Ostrosky-Solis, & Bernal, 2006; Cofresi & Gorman, 2004; Cormier, 2012; Ferrett, 2011; Fujii & Wong, 2007; Manly, Byrd, Touradji, & Stern, 2004; Manly & Echemendia, 2007; Razani, Murcia, Tabares, & Wong, 2007; Radebe, 2010; Rushton, 2008; Smit, 2010; Skuy et al., 2000). The use of measures for assessing the intellectual functioning of CLD learners has been found to be highly controversial as bias is the most significant assessment issue to date (Brown, Reynolds, & Whitaker, 1999; Olliden & Lizaso, 2014).

With the increasing need to assess the intellectual functioning of CLD learners, there is a crucial need to acknowledge linguistic diversity both for the learners being assessed and for the psychologists conducting cognitive assessments. Traditional, norm-referenced intelligence tests are no longer appropriate for CLD learners as these tests were primarily

normed using middle-class, English-speaking individuals (Jacob & Hartshorne, 2007; Mdlalo, 2013; Millett, 2010; Oliden & Lizaso, 2014; Olvera & Gomez-Cerrillo, 2011). The repercussions of test selection, administration and interpretation without sensitivity to a learner's culture and language may result in serious ethical violations. It can erroneously brand learners with stigmatizing labels and over-represent certain races and ethnicities; in the case of the current study, Black African isiZulu-speaking children in special education. Thus, it can deny them the opportunity to progress in life, limiting the educational and socio-economic opportunities of their future generations as well (Artiles & Ortiz, 2002; Mdlalo, 2013; Miller, 2011; Valencia & Suzuki, 2001). It is therefore essential for psychologists to select appropriate assessment tools that would not be culturally and linguistically biased (Ferrett, 2011).

South African psychologists are faced with a challenge of servicing clients who, by reason of race, culture and language, are not well represented in the normative base of available assessment tools (Bethlehem et al., 2003; Oliden & Lizaso, 2014). They have to decide whether to use assessment tools that were developed and standardized in other countries, or to use the few locally developed measures when assessing the intellectual functioning of CLD learners (Boon & Steel, 2005; Claassen, 1998; Ferrett, 2011; Herbst & Huysamen, 2000; Nell, 1994; Rushton, 2008; Skuy et al., 2000). From an ethics perspective, the decision depends on factors such as the extent to which psychologists are sensitive to the potential for cultural bias (Ferrett, 2011), and how well racial and socio-demographic factors such as socioeconomic status, as well as level and quality of education, are taken into consideration when interpreting test results (Foxcroft, 1997; Kanjee, 2005; Nell, 2000; Shuttleworth-Edwards, van der Merwe, van Tonder, & Radloff, 2012).

Studies have found that some psychologists select and use Western-developed tools and depend on informal oral translations and the use of interpreters during testing, and this compromises the validity of standardized tests (Ardila, 2005; Carter et al., 2005; Duffy & Wong, 2003; Foxcroft & Roodt, 2009; Mitrushina, Boone, Razani, & D'Elia, 2005; Shuttleworth-Edwards, Donnelly et al., 2004; Shuttleworth-Edwards, Kemp et al., 2004). This is especially challenging in the context such as that of the province of KwaZulu-Natal, where the fluidity of isiZulu results in variations in the standard of the language spoken owing to factors such as those mentioned above (education, social conditions, place of origin, migration, urbanization, exposure to the media, and integration with other languages and cultures). Moreover, as research has shown that in KwaZulu-Natal standard isiZulu is spoken in rural areas and non-standard isiZulu is spoken in urban and

township areas (Calteaux, 1996; Cook, 2013; Magagula, 2009; Mkhize, 2013; Ngcobo, 2013; Zungu, 1995), it is essential to understand the implications of this when assessing the intelligence of isiZulu-speaking bilingual learners.

Continental and international literature has brought forth evidence that urban children have better levels of intellectual functioning as compared to rural children; and that various factors affect the IQ scores obtained from psychological assessments. These factors include the cultural differences that alter the meaning of intelligence; the rural and urban background; level and quality of education; parents' profession and age (Breslau et al., 2001; Daley, Whaley, Sigman, Espinosa, & Neumann, 2003; Espinosa, Sigman, Neumann, Bwibo, & McDonald, 1992; Flynn, 2000, 2012; 2013; Ijaz, Kazmi, & Nazir, 2013; Sternberg & Grigorenko, 2004; Wachs, Bishry, Moussa, & Yunis, 1995; Williams, 2013).

A study conducted by Downey (2001) found that factors related to family structure and parental factors contribute the differences in the development and enhancement of intelligence of children growing up in urban and rural areas. He found that family sizes in rural areas are larger than those in urban areas. A smaller family size was associated with increased and sufficient resource provision per child, such as food, toys, access to education and scholastic resources, all of which aided in optimizing cognitive abilities (Downey, 2001). Parental literacy and levels of education achieved, bigger income, and affordability of resources were also found to contribute to the intelligence of children living in urban areas by providing an enriched background and socialization practices that enhance cognitive performance (Downey, 2001; Schooler, 1998).

It has been found that increased environmental complexity contributes to the differences in the IQ levels of children from rural and urban areas (Daley et al., 2003; Espinosa et al., 1992; Wachs et al., 1995). Research has shown that children growing in urban areas where their environments are intellectually stimulating, characterized by advancements in technology, more technological and complex toys, games, television, computers and formal education demonstrate increased cognitive flexibility (Daley et al., 2003; Espinosa et al., 1992; Wachs et al., 1995; Schooler, 1998). This kind of exposure may affect children's performance in IQ tests. The images that children get exposed to with toys and computer games are said to resemble the patterns in tests such as the Blocks Design, Mazes, Pattern Completion, Object Assembly and Raven's Matrices. Exposure to these materials may improve performance in tests of concentration and visual-spatial abilities (Breslau et al., 2001; Daley et al., 2003; Flynn, 2000, 2012, 2013; Williams, 2013). This indicates that the

testing stimuli tend to favour children in urban areas. If the stimuli included items familiar to children in rural areas (e.g., the ability to distinguish between different types of plants and vegetation, the ability to identify various types of animals, etc.), they would more likely perform better in IQ tests. These also need to be considered when assessing the intelligence of children in a diverse context such as KwaZulu-Natal.

Language is used as the mode of communication when conducting psychological assessments. It is recommended that psychologists understand the language of the testee within the context of their culture when administering a culturally sensitive assessment (Lidz, 2001; Ortiz, 2002). This is suggested as language is more than just a means of communicating – “language is cultural and is used to socialize children into linguistic and cultural communities” (Nahari & Martines, 2008, p. 259). As noted earlier, South Africa is a developing country with a population that is diversified by a variety of cultures, each with their own language or dialect (Swanepoel, 2006). Before 1993, South Africa had two official languages, English and Afrikaans; with the new constitution of the democratic country, nine more African languages were added (RSA, 1996). With such diversity it becomes necessary for provision to be made to promote access to all services to all citizens in their own language (Mkhize, 2013; Swanepoel & Krüger, 2011; Young & Westernoff, 1999).

Most South Africans speak an indigenous African language in their homes (SAIRR, 2015; Stats SA, 2012), but a large majority of social welfare and health care professionals are unable to speak an indigenous African language (Singleton & Krause, 2010 as cited in Mkhize, 2013). Pillay and Kramers (2003) conducted a study that reflected on language matters in psychology and the training of psychologists in South Africa, particularly in KwaZulu-Natal. They reported that a massive majority of psychologists at that time, i.e., non-Black Africans, were incompetent in the African languages spoken by most of their clients, especially isiZulu (Pillay & Kramers, 2003). Bethlehem et al. (2003) expressed a similar concern, stating that with the majority of the South African population being multilingual, most psychologists are not fully meeting the linguistic needs of their clinical caseload. This raises a great concern considering that “language is a diagnostic and therapeutic instrument of the psychologist” (Pillay & Kramers, 2003, p. 57). Hence, it has been recommended that psychology students should learn at least one African language spoken in the areas in which they reside, and training in professional psychology should be open to more Black Africans (Pillay & Kramers, 2003). Following this recommendation, Mkhize et al. (2014) argued that the sole use of exoglossic languages in the professional



training of psychologists in South Africa neglects African languages, and results in the provision of culturally deficient psychological services.

As noted in the section above, the majority of isiZulu speakers in KwaZulu-Natal are bilingual. (Magagula, 2009; Mdlalo, 2013; Mkhize, 2013; Ndimande-Hlongwa & Ndebele, 2014; Van Dulm, 2007; Zungu, 1995). Bilingualism can obscure the assessment process as the child or learner that is being assessed may not benefit from monolingual assessment (Bethlehem et al., 2003; Levin, 2004; Mkhize, 2013; Oriden & Lizaso, 2014; Swanepoel & Krüger, 2011). The interaction between language and culture is crucial in helping children learn the syntax of their native language and what words mean in varying contexts (Mkhize, 2013). Henceforth, psychologists need to understand that children develop specific language skills within their own communities, which can differ significantly from the demands of psychological assessment (Bethlehem et al., 2003; Bolton, 2002; Crawford, 1999; Millett, 2010; Wolfram, Adger, & Christian, 1999). For this reason, CLD learners, specifically, isiZulu-speaking learners, should be assessed cautiously within their cultural milieu, preferably in their own mother tongue (Crawford, 1999; Koocher & Rey-Casserly, 2003; Mdlalo, 2013; Mkhize, 2013).

#### **4.5.1 The problem of cultural and linguistic bias in intellectual assessment.**

Bias in the assessment of intellectual functioning of CLD learners has been an active and controversial topic for decades (Adelman & Taylor, 1979; Feuerstein, Rand, & Hoffmann, 1979; Foxcroft & Aston, 2006; Foxcroft et al., 2004; Jensen, 1980; Lacroix, 2008; Millett, 2010; Oriden & Lizaso, 2014; Smit, 2010; Solarsh & Alant, 2006). The deliberations have focused largely on cultural and linguistic bias, with attention drawn to culturally irrelevant components of tests that affect the performance of CLD test-takers (Brown, Reynolds, & Whitaker, 1999; Cormier, Hansen, & McGrew, 2011; Cormier, McGrew et al., 2011; Oriden & Lizaso, 2014; Reynolds, 2000; Rhodes et al., 2005). Both cultural and linguistic biases have been found to be contributing to lower scores on cognitive measures for CLD learners (Bethlehem et al., 2003; Brown et al., 1999; Millett, 2010; Mushquash & Bova, 2007; Reynolds, 2000). Culturally inappropriate test items as well as the influence of expressive and receptive language demands for intellectual assessment tools have been identified as potential sources of construct-irrelevant invalidity for these assessment tools (Cormier, Hansen et al., 2011). The current study therefore sought to explore such challenges and emphasize the importance for psychologists to continuously evaluate the assessment tools used in their practice.

Studies by Venter (2000) and Mushquash and Bova (2007) found that people from different race groups perform differently on tests of intelligence as a result of language. This is attributed to socio-economic factors, environmental factors, acculturation, cultural factors, and test content bias (Beiser & Gotowiec, 2000; Mushquash & Bova, 2007; Venter, 2000). It is also attributed to the inclusion of test items and materials that are foreign to children who are not of Western culture, which leads to failure to assess children effectively in various cultural settings (Gladstone et al., 2008). CLD learners may lack some of the concepts and vocabulary used in standardized tests, and the tests may not contain the language background that encompasses the values and meanings that the testees are accustomed to.

Drawing on the sections above, dialects used by the assessor and the testee may be different; and concepts in one language may not have an equivalent in another language. Thus, poor performance by CLD learners may reflect a linguistic bias in the test (Bainter & Tollefson, 2003; Beiser & Gotowiec, 2000; Ntombela & Mhlongo, 2010; Tzuriel, 2001; Venter, 2000). According to Vygotsky (1978) language mediates practically all higher mental functions such as perception, memory, emotions, cognition, goal-oriented behaviour, and motivation. Language also mediates social interaction and serves as a tool through which "the world is constituted... as people talk it, write it and argue it" (Potter, 1996, p. 98). Therefore, during psychological assessment, those who are less able to understand the subtle nuances conveyed by the language of the test or the pragmatics of language usage (owing to a different cultural/linguistic background) may perform less optimally on language-based instruments (Oliden & Lizaso, 2014; Rhodes et al., 2005).

This evaluation of the language of the ISZSP sought to aid psychologists in ensuring that the tool is contextually relevant by identifying and suggesting recommendations to address the challenges that result from the use of the ISZSP in a culturally and linguistically different context from that in which it originated. The current study also qualitatively assessed the processes by means of which meaning is negotiated between the psychologist and the learner in the context of linguistic demands, communicative practices and the assumptions inherent in the assessment tool and the process itself, given that assessment is embedded in a social and cultural context (Greenfield, 1997; Kwate, 2001; Lacroix, 2008; Levine, 1997).

#### **4.6 Translation of Intelligence Tests as a Means of Addressing Cultural and Linguistic Bias**

Local and international studies have indicated the potential for intellectual assessment to be adversely affected by culturally and linguistically-biased test items or test material, and have suggested adaptation and/or translation as solutions (Ardila, Ostrosky-Solis, & Bernal, 2006; Cofresi & Gorman, 2004; Ferrett, 2011; Fujii & Wong, 2007; Manly, Byrd, Touradji, & Stern, 2004; Manly & Echemendia, 2007; Ortiz & Dynda, 2005; Razani et al., 2007; Rushton, 2008; Skuy et al., 2000).

However, it has been found that intellectual assessment tools seem not to meet the criteria of a culturally and linguistically fair assessment – even if they have been translated (Blatchley & Lau, 2010; Ortiz, 2002; Visser & Viviers, 2010). This is because the original meaning often gets lost, or more often, the item may suggest different meanings in different cultural contexts. This then renders the translation in the test biased and invalid (Oliden & Lizaso, 2014; Venter, 2000). Additionally, in a study conducted by Gladstone et al. (2008), it was found that the translation of psychological assessment tools often does not allow entirely for local expressions and customs, which leads to a total misinterpretation of results.

Therefore, when assessment tools have been translated for use in diverse contexts, they should be assessed not only for technical and semantic equivalence, but also the cultural relevance of the test items included in these instruments before they are administered (Erkut, 2010; Mason, 2005; Temple, 2005). This indicates a need to examine how assessment tools and assessment practices can better respond to the growth and increase in the ethnic composition of populations by more accurately reflecting the linguistic and cultural diversity among learners (Lacroix, 2008).

It is commonly acknowledged that translation of psychological instruments encompasses more than rewriting the text in another language (Bracken & Barona, 1991; Brislin, 1980; Geisinger, 1994; Hambleton, 1994; Van de Vijver & Tanzer, 2004). Each language group presents with diverse ethnic and cultural backgrounds, which means that merely translating the same test content into several languages does not entirely resolve the problem of cultural fairness and precision (Van de Vijver & Hambleton, 1996; Tanzer, 2004). It must be noted that an appropriate translation requires a balanced treatment of psychological, linguistic and cultural considerations (Hambleton, 1994; Van de Vijver & Hambleton, 1996). Parker et al. (2007) found that translation can prove to be ineffective for three reasons, viz. a) translation can be difficult in contexts of overwhelming

illiteracy/orality, such as rural areas; b) there are specific concepts used in the source language for which there are no synonymous terms in the target language familiar to the child; and c) children might not comprehend concepts in their first language as their language of instruction might be English. This means that it would be inappropriate to merely translate the concept to their first language.

Van de Vijver and Tanzer (2004) argue that a translation that is assumed to be linguistically accurate may still be of poor quality from a psychological point of view. Psychological constructs assessed by translated tests are sometimes not universal across cultures. For instance, research has shown that a vocabulary test cannot be merely translated into another language as the words may not be of the same level of difficulty in the two languages (Bornman, Sevcik, Ronski, & Pae, 2010; Foxcroft & Roodt, 2009; Olvera & Gomez-Cerrillo, 2011). Research has also shown that culturally inappropriate translation of assessment tools for cognitive abilities such as memory, pattern recognition and categorisation results in item and administration bias as these cognitive abilities are influenced by culture (Bornman et al., 2010; Geisinger, 2006; Gladstone et al., 2008).

Blumenau and Broom (2011) conducted a study investigating the influence of language on psychological assessments of memory and learning. Their sample was comprised of 54 male and female secondary school learners between the ages of 16 to 19 years, of whom 40 learners were English first language speakers, and 14 were English second language speakers. The latter had varying home languages including Afrikaans, isiZulu, isiXhosa and seSotho. All the participants had attended an English-medium school for at least the previous three years, and felt proficient in English. The tests that were administered to the sample were the South African-adapted version of the Rey Auditory Verbal Learning Test (RAVLT) and the South African List Learning Test (SALLT). Their study found that tests of Western origin that have been translated into a second language have inaccuracies when used with English second language children. They attributed this to the specific cultural exposure that South African children are subjected to, as well as the education of bilingual learners in a language that is not their mother tongue (Blumenau & Broom, 2001).

South African psychologists are therefore faced with the challenge of not only choosing appropriate assessment tools, but also administering them in a manner that will yield good results reflecting the learners' true abilities and limitations (Blumenau & Broom, 2001; Foxcroft & Roodt, 2009). Psychologists have an ethical responsibility to use tests that are rooted in the testee's culture and to develop appropriate tests to ensure fair assessment

in the South African culturally diverse context. Hence, it is recommended to consistently inspect the suitability of assessment tools and take precautions against method, item, content, and construct bias (Bornman et al., 2010; Foxcroft & Roodt, 2009; Oliden & Lizaso, 2014; van de Vijver & Tanzer, 2004).

Studies in cross-cultural psychology have proposed that with appropriate translation, familiar content, and administration by a native tester, intelligence tests are transportable from one culture to another (van de Vijver & Leung, 1997). Therefore, they claim that components of intelligence are the same in all cultures, and can be measured by using the same approaches. The same translated test items, however, may measure different skills for different individuals as a function of the socialization they bring to the test-taking situation (Sternberg & Grigorenko, 2002, 2004). Greenfield (1997) points out that translation and transportability of tests requires that cultures share similarities in:

- *values and meaning*: there must be agreement on the value of tasks and responses across cultures, and the test items or tasks must share the same meaning in different cultures;
- *ways of knowing*: knowing must rest in the individual (not the group), and a distinction made between the process of knowing and the object of knowing; and
- *styles of communication*: the function of questions asked in assessments must be universal, decontextualized communication must be universally familiar, and communication with strangers in an impersonal manner must be universally acceptable (p. 2).

Findings of previous studies have indicated that cultures do not share these assumptions; therefore, the use of adapted and translated assessment tools across cultures is questionable (Bainter & Tollefson, 2003; Bedell et al., 1999; Brislin, Worthley, & MacNab, 2006; Greenfield, 1997; McCloskey & Athanasiou, 2000; Smit, 2010; Sternberg & Grigorenko, 2004). This is because in the assessment setting, psychologists conduct assessments on the basis of the Eurocentric values, meanings and assumptions embedded in the tests (Bainter & Tollefson, 2003; Greenfield, 1997; Smit 2010; Sternberg & Grigorenko, 2004). Such assumptions could differ from what other cultural groups hold factual about intellectual functioning. One of such assumptions in measures of intellectual functioning is that “all individuals understand test items similarly” (Wiggins, 1973, p. 18, 2003). This is not the case as different cultures might have different values and meanings attached to a particular test item. Thus, CLD learners may have a different understanding of some items. For

example, the Mazes item of the ISZSP requires the testee to navigate the maze from the entry point to the exit, as fast as possible, without making errors. In some cultures, completing certain tasks speedily may be more valuable than successful completion of those tasks unhurriedly and steadily.

Additionally, cultural ways of knowing cannot be entirely transported from the source test to the translated test. This is because some cultures appreciate individualistic models of knowing, while others value collectivist models (Greenfield, 1997). It should therefore be factored into IQ tests that knowing does not always rest in the sole individual. For some cultures, knowing is a collaborative process as knowledge is socially constructed (Amineh & Asl, 2015; Carter et al., 2005; Greenfield, 1997; Iversen et al., 2005; Levine, 1997; Lowenthal & Muth, 2008; Parton, 2003; Potter, 1996). It would then be critical for tests to allow for the assessment process to be socially constructed by the psychologist and the learner.

With regards to styles of communication, social rules of language interaction regarding how children may speak to adults, in which situations, and in what manner, are culture-specific (Carter et al., 2005). Studies have found that in some contexts, such as in Africa, Asia and Kenya, knowledge sharing is usually from adults to children (Greenfield, 1997; Nerlove & Snipper, 1981). In these contexts, adults normally do not solicit children's views. Children are expected to listen and learn from adults (Greenfield, 1997; Harkness & Super, 1977; Nerlove & Snipper, 1981). Similarly, in their study, Carter et al. (2005) found that it is uncommon for Kenyan children to sit and have a conversation with an adult, particularly a strange adult. Thus, the expectancy of intellectual assessments for an African child to sit and converse with a strange adult is an unfamiliar activity that violates their cultural and social norms of acceptable communicative styles. These findings show that the transportability of culture from one test to the next during translation is most likely impossible. Therefore, translated tests such as the ISZSP need to be periodically evaluated for contextual and cultural relevance.

#### **4.7 Conclusion**

As languages evolve, it becomes essential to review the language of translated tests for contextual relevance. The effects of bilingualism and code switching on the assessment of isiZulu-speaking children needs to be taken into account when translating or development intelligence tests intended for them. Moreover, some of the shortcomings

of cross-cultural assessment when testing intelligence can be attributed to the theories which form the tests' foundational basis. As discussed in Chapter 2, while some theories do not take into account the role of culture in cognitive development, others reflect cultural bias. The discussion of indigenous conceptions and theories of intelligence illustrates an understanding of the role of culture and language in the development of intelligence and higher mental functions. From this review, I put forth an argument that psychological assessment practices ought to take cognizance of culture-based conceptions of intelligence for a fair measurement of isiZulu-speaking children's intellectual functioning. This ought to also include means to ensure that the language of tests is that which is comprehensible to the population that the tests are intended for.

## CHAPTER 5

### A BAKHTINIAN RESEARCH METHODOLOGY

*An utterance is never just a reflection or an expression of something already existing outside it that is given and final. It always creates something that never existed before... But something created is always created out of something given... What is given is completely transformed in what is created (Bakhtin, 1986, p. 119-20).*

#### 5.1 Introduction

This chapter presents the methodology that was employed in this study. The research paradigm and design, as well as methods used for data collection and analysis, are discussed. The chapter demonstrates how the selected Bakhtinian concepts that are presented in Chapter 3 were operationalised for analytic purposes in the study. The participants are presented as authors, heroes, and interlocutors in a dialogic activity. The chapter continues to present and discuss the approach that was followed in analysing the utterances that emerged. The chapter concludes by discussing ethical considerations and issues pertaining to credibility, dependability and transferability of the study findings.

#### 5.2 The Social Constructionist Research Paradigm

Commensurate with the dialogic theoretical framework, the current study adopted the social constructionist paradigm. From a social constructionist perspective, knowledge is constructed through social interaction (Bryman, 2001). Expanding from constructivism – which considers the mind as an active tool in the construction of knowledge – and with its roots in phenomenology, social constructionism emphasizes the relational, historical and sociocultural elements to knowledge construction and meaning-making (Amineh & Asl, 2015; Gergen 2005; Latour, 2004, 2005; Mertens, 2005). Moreover, social constructionism aims to understand “the world of human experience” (Cohen & Manion, 1994, p. 36), suggesting that “reality is socially constructed” (Mertens, 2005, p.12). This paradigm – inspired by Vygotsky’s (1978) work and Bakhtin’s dialogism (1981) (amongst others) – posits that constructions of multiple realities are based on people’s experiences and views; new knowledge and new lessons are specific to, and grounded in, the situation in which they occur. From this perspective, knowing means belonging, participating, and communicating. Therefore, “knowledge is not an entity residing only in the head of an individual, which can be acquired, enriched, or changed, but rather an activity that cannot be considered separately from the social context in which it takes place” (Mason, 2007, p. 2).



The methodology of this study draws upon the social constructionist views of Gergen (1978, 1985, 1994, 1996, 2000, 2004, 2005) and Latour (1996, 1999, 2004, 2005). Gergen (1985) argued that language is a relational activity; it plays a major role in the social construction of reality and meaning-making. He posited the following:

If we view language... chiefly as a set of practices employed by people for the purposes of successful interchange, then new horizons open for the understanding of psychological discourse. Forms of discourse emerge, for one, as a response to certain practical problems encountered in human relationships. In the same way that a carpenter may require a certain instrument to drive a nail, and the artist certain implements to render a likeness, differing vocabularies and grammars may be required to solve various problems of human community. In light of our initial concerns, this is to say that much common sense as well as scientific "knowledge of the mind" may gain its character not from the actualities of mental functioning but from problems of human interchange that the language was designed to solve. In effect the existing ontology of mind manifests the structure of social action (Gergen, 1986, pp. 116-117).

Gergen (1994) further argued that meaning-making is social and relational; "it is human interchange that gives language its capacity to mean, and it must stand as the critical locus of concern" (pp. 263-264). Thus, language makes the disclosure and exploration of the human world possible. From this argument, the current study is based on the assumption that language is a tool by which people understand and relate to each other; in using language people continually transform human activity and co-construct reality.

Latour (1996, 2005) extended the above-mentioned understanding of meaning-making, arguing that non-human actors play an active role in the social construction of knowledge. Thus, the actors participating in the meaning-making processes need not only be humans, but can be artefacts. This is in accordance with semiotic philosophy, which maintains that human activity involves engaging with non-human actants (Greimas, 1983; Latour, 2005). This in turn dovetails well with Vygotsky's concept of semiotic mediation (Leiman, 2002; Shotter, 1993b; Valsiner, 2002; Vygotsky, 1986; Wertsch, 1998). Parallels can also be drawn with the dialogic and social constructionist view in that the constructions of knowledge and reality are based on people's dialogue with the cultural, historical and social worlds, which include non-human interlocutors (Amineh & Asl, 2015; Bakhtin, 1981; Gergen, 2005).

The current study builds on the similarities between the social constructionist and indigenous African epistemological frameworks, namely that knowledge is grounded in

daily social interactions and dialogue (Hamminga, 2005; Narh, 2013). From an indigenous African perspective, meanings are not held by individuals; they are shared between people and their surrounding community (Narh, 2013). The individual mind is not an instrument of knowledge generation in isolation. Rather, the focus should be on social relationships as catalysts of knowledge generation, construction and co-construction. Similarly, Bakhtin emphasizes social interaction and social participation in knowledge construction (Bakhtin, 1981; Lock & Strong, 2010; Shotter, 2000). From a dialogic perspective, knowledge is socially constructed; it arises from social action in which interlocutors participate in a dialogical activity which guides future utterances and actions (Bakhtin, 1981; Bhatia, 2011; Shotter, 2000). Hence, knowledge is lived; it necessitates participation and experience of the social world, relations, and dialogue. Therefore, the data generated from the current study does not reflect the views of isolated, atomistic individuals, as it arises from the participants' participation in their historical, linguistic, and sociocultural communities, past and present. Hence, the focus on the utterance as the unit of analysis (Bakhtin, 1981; Barani et al., 2014; Hamminga, 2005; Hermans, 2001a; Jacobsen et al., 2010; Kochalumchuvattil, 2010; Lock & Strong, 2010; Shotter, 2000; Wang, Bruce & Hughes, 2011). This focus on participation also meant that more than merely being responsive in dialogue – to participants as interlocutors – I had to consider the participants' views and meanings of the dialogue (Lock & Strong, 2010; Shotter, 1993b, 2000).

This study qualitatively evaluated the cultural and linguistic appropriateness of the ISZSP by drawing on selected key concepts of Bakhtinian dialogism. As a method, dialogism seeks to understand human experience by focusing on the analysis of language and ongoing activity as opposed to finalized meanings (Bakhtin, 1984; Lock & Strong, 2010; Matusov, 2009). Moreover, dialogism falls within the genre of social constructionist theories which foreground the multiplicity of selves (Hermans, 2001, 2003; Hermans, Rijks, & Kempen, 1993). Thus, for the current study, dialogism afforded me a lens to understand the participants' multiple voices, incorporating their multiple social positions, as they endeavoured to traverse the complexity arising from the psychological assessment itself. Furthermore, there was a high level of dialogic interaction between me, the researcher, and the data (Bakhtin, 1981; Cobb & Yackel, 1996; Jovchelovitch, 2007; Kaartinen & Kumpulainen, 2002; Krummheuer, 1992; Wang et al., 2011). The unit of analysis was not the individual, but the utterances that emerged in the data – the situated communicative activity constructed dialogically through language by me, the researcher, and the participants (Bakhtin, 1981; Chinn, 1998; Mason, 2007; Matusov, 2009; Mertens, 2005;

Merriam, 1998; Narh, 2013). Commensurate with the social constructionist paradigm, I focused on how utterances enable one to understand knowledge construction through social relations, practices and discourse (Creswell, 2003; Matusov, 2009; Mertens, 2005; Narh, 2013; Potter, 1996, 2004). This called for sensitivity to the participants' worldviews and their sociocultural context.

Dialogic research emphasizes relational engagement between participants in the speech act (Bakhtin, 1981; Gardiner, 2000; Ishiguro, 2010; Narh, 2013; Ooi, 2013; White, 2009). Thus, the *researcher-as-polyphonic-author*, together with the participants, jointly co-constructed new knowledge and meaning from the data. I allowed all the participants to bring forth their voices as both authors and heroes in the process of knowledge construction. My "insider perspective" as a psychologist and member of the Zulu culture expedited the co-construction of meaning. I had to proceed with caution during data collection and analysis, as this insider perspective could have resulted in researcher bias. Hence, I engaged in dialogical reflexivity as reported in section 5.4.2 below.

### **5.3 The Descriptive-Interpretivist Research Design**

The current study was a qualitative evaluation of the cultural and linguistic appropriateness of the ISZSP, which might impact on the construct validity of the tool. The qualitative approach was selected rather than the statistical tests such as common method variance that uses convergent and discriminant validation/factorial validation. The qualitative approach was adopted since the primary purpose of the current study was to understand psychologists' lived experiences of using the ISZSP, and to understand the construction of the assessment process.

Literature has indicated that in some cases, the statistical test of common method variance using convergent and discriminant validation/factorial validation might pose as a potential problem as these statistical tests alone cannot be sufficient to compute and certify the extent to which a psychological measure can be pronounced as construct valid (Drew & Rosenthal, 2003; Podsakoff, MacKenzie, Jeong-Yeon & Podsakoff, 2003). Moreover, the statistical technique of common method variance might yield misleading conclusions in assessing construct validity as it has been found to be one of the sources of measurement error (Bagozzi, Yi, & Phillips, 1991; Drew & Rosenthal, 2003; Kline, Sulsky, & Rever-Moriyama, 2000; Lindell & Brandt, 2000; Lindell & Whitney, 2001; Podsakoff et al., 2003). This would likely be more so in the case of the ISZSP, where there is dearth of background information about the test as well as its fit with the target populations'

assumptions about what constitutes intelligence. Similarly, different views on the nature of the knowing self, its relationship to the target of one's knowledge, the attendant communicative practices (Ferrett, 2011; Foxcroft et al., 2004; Greenfield, 1997; Kwate, 2001; Smit, 2010), complicate the picture.

In South Africa, there is a paucity of appropriately standardized intellectual and psychological measures in indigenous African languages which can be used as benchmarks for the purposes of convergent or discriminant validation (Ferrett, 2011; Foxcroft et al., 2004; Smit, 2010). Even matric (Grade 12) scores are not a good measure of ability or potential, given South Africa's schooling system (DoE, 2014; Radebe, 2010) which still mirrors the inequalities of the apartheid era. In such cases, the common method variance is likely to become one of the main sources of measurement error, threatening the construct validity of assessment findings (Bagozzi et al., 1991; Lindell & Whitney, 2001). To avoid these challenges, a qualitative research design was adopted for the study.

A descriptive-interpretivist qualitative research design was the most appropriate for this study (Adams, Collair, Oswald, & Perold, 2004 as cited in Eloff & Ebersohn, 2004; Elliot & Timulak, 2005). The descriptive-interpretive qualitative research design assumes that the social world is constantly being constructed through social interactions. Social reality is understood through the viewpoints of those enmeshed in meaning-making activities (Bakhtin, 1981; Babbie & Mouton, 2005; Elliot & Timulak, 2005; Hesse-Biber & Leavy, 2011). This design assisted me to attain new insights about how the participants construct meaning in their lives, in this case the assessment process, which among other things is informed by their experiences (Tugushev, 2008). This research design relies on utterances in the form of rich linguistic, verbal and non-verbal descriptions rather than numerical data, and employs meaning-based rather than statistical forms of data analysis. The design enabled me to remain receptive to new ideas, issues and undercurrents that emerged in the study (Elliot & Timulak, 2005; McMillan & Schumacher, 1997, 2006).

Furthermore, the research design of this study was triangulated. Triangulation refers to a process by which researchers attempt to maintain the credibility of the study by combining and synthesizing data that were gathered using different instruments (Meijer, Verloop & Beijaard, 2002). For this study, method triangulation was used with the employment of two data collection methods and two approaches to data analysis that were selected according to the research questions (Banister et al., 2011; Meijer et al., 2002; Pope et al., 2007; Thomas et al., 2004).

The graphic representation of the design of this study is illustrated in Figure 1 below.

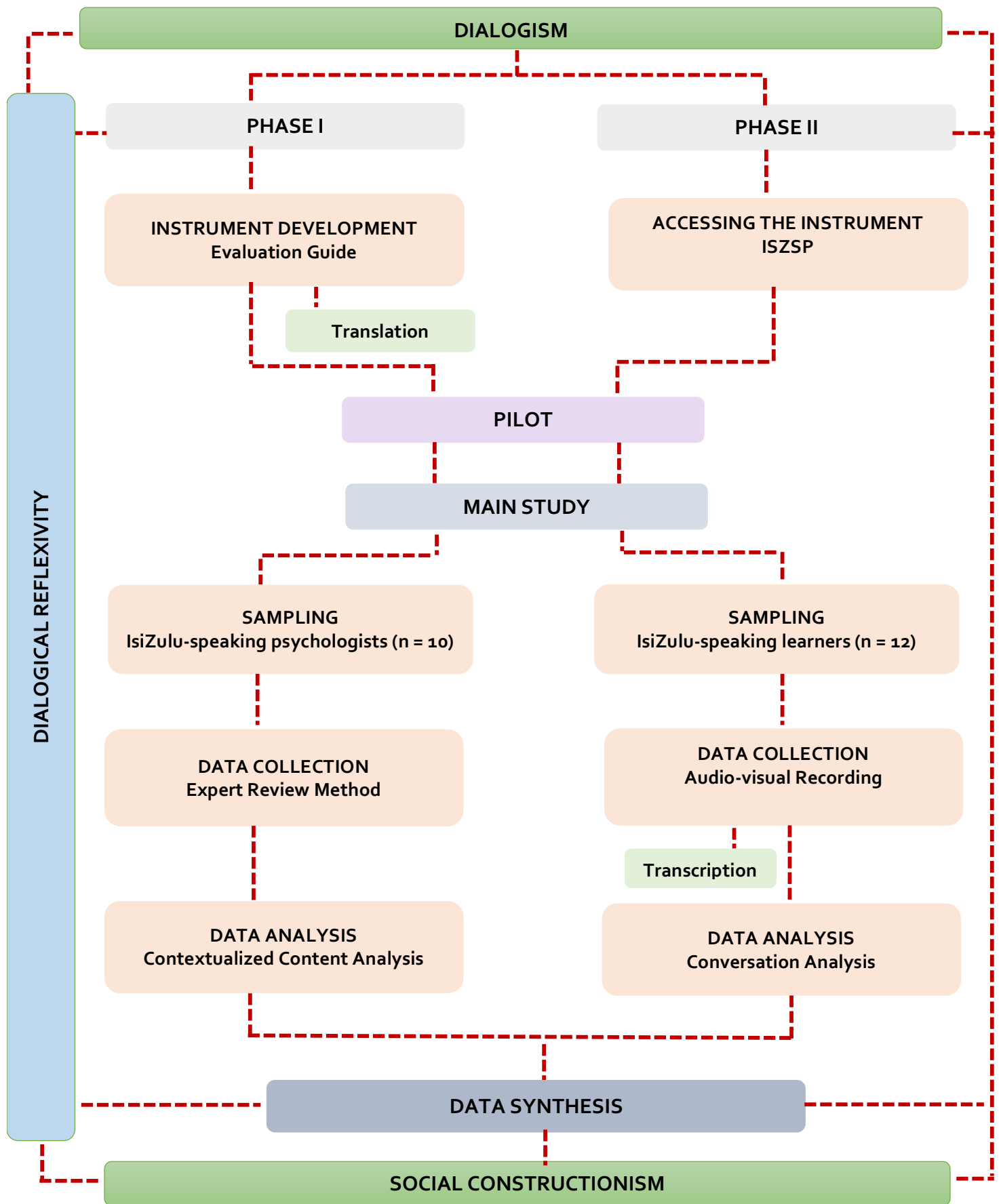


Figure 1. Graphic representation of the research design for the study

#### **5.4 Executing Dialogic Research**

In employing the dialogic principles of Bakhtinian philosophy for the methodology of this study, I assumed the role of an author who engaged in a dialogic meaning-making process and interpreted the polyphonic acts performed by the participants. This was more evident in the data analysis phase where I used the Bakhtinian lense to interpret the data. Bakhtinian dialogical analysis allowed for the interpretation of data and meaning-making as unfinalized processes (Boccagni, 2011; Gillespie & Cornish, 2015; Salgado, Cunha & Bento, 2013; Sullivan & McCarthy, 2005).

Traditional data analysis is a systematic search for meaning (Hatch, 2002). It is a process that involves reading through the data repeatedly and engaging in activities of breaking the data down and building it up again in novel ways (Terre Blanche, Durrheim, & Kelly, 2006). There has been a proliferation of interest in dialogic approaches to qualitative research (Boccagni, 2011; Gillespie & Cornish, 2015). Despite the major theoretical advancement in dialogical theory, research methods informed by this perspective are said to lag behind (Gillespie & Cornish, 2015; Holquist, 1990; Linell 2009; Salgado et al., 2013; Sullivan & McCarthy, 2005). Bakhtin's dialogism has been instrumental to understand what transpires in interviews, focus groups, videos and written documents. It is also an ideal tool to examine the relationship between researchers and research participants (Aveling, Gillespie, & Cornish, 2014; Boccagni, 2011; Gillespie & Cornish, 2015; Salgado et al., 2013). Furthermore, dialogism has been found to be theoretically insightful, assisting researchers to uncover the contextual and argumentative nature of meaning (Gillespie & Cornish, 2015). However, studies that employ dialogism as a methodological frame have not yet elaborated their dialogic analytic methods in detail (Aveling et al., 2014; Gillespie & Cornish, 2015; Salgado et al., 2013; Sullivan & McCarthy, 2005). None of the dialogic studies have been "systematic about the move from theory to a method of empirical research" (Gillespie & Cornish, 2015, p. 437).

Some empirical studies have attempted to formalize analytic methods for dialogic research, such as: coding voices for power relations and dominance (Linell, Gustavsson, & Juvonen, 1988); the personal position repertoire method for mapping out I-positions and their interactions (Hermans, 2001b; Hermans & Dimaggio, 2004, 2007; Oleś, 2009); and coding direct and indirect quotations (Gillespie & Cornish, 2010). These attempts have been criticized for being incompatible and inconsistent with the fundamental assumptions of dialogism. According to Grossen (2010) formalizing an analytic method for dialogic research refutes the assumptions of dialogism, which assert that meaning is contextual

and unfinalized. Another criticism has been that such finalized analytic methods convert the voice into what the research participants speak about, rather than a position they speak from, thus de-contextualizing these voices and failing to evaluate them in relation to situated social relations (Aveling et al., 2014; Grossen, 2010; Heath & Hindmarsh, 2002; Heath, Luff et al., 2007; Linell et al., 1988; Salgado et al., 2013).

Moreover, traditional methods of data analysis, such as breaking down text by coding, have been criticized for isolating individual utterances from the chain of utterances and discourse within which they are embedded (Gillespie & Cornish, 2015; Grossen, 2010; Salgado et al., 2013; Stewart, 2011). This is said to obstruct and impede the historic, contextualized and relational co-construction of meaning, the main supposition of dialogism (Gillespie & Cornish, 2015; Grossen, 2010; Salgado et al., 2013). Utterances are multivoiced and have multiple meanings. Following an inflexible standardized step-by-step analytic method to produce definitive meanings is not only contradictory to the assumptions of dialogism; it also turns the researcher into a monologic author who imposes the dominance of established analytic methods on to the data (Gillespie & Cornish, 2015; Grossen, 2010).

In order to avoid data analysis that is discordant to the assumptions of dialogism, I adopted an approach to analysis devised by Gillespie and Cornish (2010) and Aveling et al. (2014); and later expanded by Gillespie and Cornish (2015). This approach involves fluid, temporal and context-specific interpretation of data; it is well attuned to the theoretical assumptions of dialogism. In this approach, I flexibly employed thematic analysis and conversation analysis for analysing utterances. Commensurate with dialogical theory, this approach facilitated contextualized and unfinalized interpretation and meaning-making (Aveling et al., 2014; Gillespie & Cornish, 2015; Salgado et al., 2013).

#### **5.4.1 The unit of analysis: Utterance.**

Several contemporary Bakhtinian scholars have accentuated and argued for utterance as a central unit of analysis in dialogic research (Brandist, 2002, 2004; Burwell, 2003; Clark & Holquist, 1984; Freedman & Ball, 2004; Gardiner, 2000; Gillespie & Cornish, 2010, 2015; Grossen, 2010; Hirschkop, 1999; Jacobsen, Råheim, & Rasmussen, 2010; Junefelt & Nordin, 2009; Miyazaki, 2009; Mkhize, 2003; Moen, 2006; Morris, 2003; Ooi, 2013; Rojo, 2009; Salgado et al., 2013; White, 2009). It was therefore fitting for utterance to be adopted as a unit of analysis in this study.

Bakhtin's (1981) dialogism accentuates the contextual, social and unfinished nature of the meaning of utterances. This meaning is intricately part of situated dialogue; it is found in the relation between the utterance and the broader historical, context (Bakhtin, 1981; Chinn, 1998; Linell, 2009; Mason, 2007; Matusov, 2009; Merriam, 1998; Mertens, 2005; Vygotsky, 1986). The meaning of utterances is at all times addressive – intended for someone and always implying an audience, i.e., the researcher, the participants, or others outside the research situation (Bakhtin, 1986; Gillespie & Cornish, 2015; Linell, 2009). Therefore, the analysis of utterances in this study focused on the language-in-interaction (talk-in-interaction) and action-in-interaction to gather the main units of meaning in the textual, verbal and non-verbal units of communication as produced by the participants in the data (Bakhtin, 1981; Holquist, 1983). From the expert review reports, the utterances were identified in the text and the multiple voices that were contained in the text. From the video data these utterances were recognized as instructions and assumptions imbuing the instruction manual; words spoken by the tester and the testee in response to each other; silences; the way the tester and the assessed child looked at each other; and the use of bodily gestures in response to what has been said.

Attention was also given to the chain-like past and present utterances that participants consulted in their spheres of communication, as well as instances of hidden dialogicality – analysing whether utterances sought responses from the self and/or were responding to visible or invisible others (Akhutina, 2003; Bakhtin, 1981; Barani et al., 2014; Hermans, 2002; Holquist, 1990; Motta et al., 2013; Wertsch, 1990, 1991). The analysis also examined the tensions between internally persuasive discourses and authorial discourses in and through dialogue rather than purely investigating their existence (Akhutina, 2003; Aveling et al., 2014; Holt, 2003; White, 2009). Throughout the process, I employed dialogical reflexivity in order to examine my own biases as they emerged.

#### **5.4.2 Critical dialogical reflexivity.**

My “insider perspective” as an educational psychologist facilitated the co-construction of meaning in this study. However, dialogical reflexivity was essential to avoid compromising the participants' voices. In qualitative studies, researchers' subjectivity and their points of view make their way into the research process (Berger, 2013; Horsburgh, 2003; Marková, 2003; McLay, 2014; Motta, Rafalski, Rangel, & de Souza, 2013; Russell & Kelly, 2002; Sullivan & McCarthy, 2005). Dialogical reflexivity then involves critical engagement with the voices entrenched in one's practices, epistemological, ontological and theoretical assumptions, methodologies and interventions (Ahmed Dunya, Lewando, & Blackburn, 2011; Alvesson & Skoldberg, 2000; Mkhize, 2004; Motta et al., 2013). It also entails critical self-evaluation



as well as a declaration of one's authorial position and authorial choices, which may affect the research process and outcome (Alvesson, Hardy, & Harley, 2008; Blaxter, Hughes, & Tight 2006; D'Cruz, Gillingham, & Melendez, 2007; Gerstl-Pepin & Patrizion, 2009; Goltz, 2011; Hammersley & Atkinson, 2002; Horsburgh, 2003; Lysaker, 2006; McLay, 2014; Motta et al., 2013; Russell & Kelly, 2002; Scott, 1997). Reflexivity is a key measure used to address researcher bias as well as to secure credibility and trustworthiness through the process of self-examination (Alvesson & Skoldberg, 2000; Berger, 2013; Scott, 1997).

For the current study, I engaged with the participants' utterances, which rendered me as an addressee. I examined my position in relation to the participants, ensuring that the interpretations and meanings that were constructed through the process were not influenced by researcher bias (Berger, 2013; DeSouza, DaSilveira, & Gomes, 2008; Motta et al., 2013; Valentine, 2007). I examined my positioning, reasoning, judgment and emotional reactions to all utterances that enacted addressivity from me (Bradbury-Jones, 2007; Goltz, 2011; Padgett, 2008; Russell & Kelly, 2002; McLay, 2014; Motta et al., 2013; Valentine, 2007). My positioning included personal characteristics such as race, ethnicity, professional experiences, linguistic tradition, beliefs, biases, preferences, emotional responses to participants' data, as well as theoretical and ideological stances (Bradbury-Jones, 2007; Finlay, 2000; Goltz, 2011; Hamzeh & Oliver, 2010; Kosygina, 2005; Padgett, 2008; Primeau, 2003).

Being a psychologist allowed me access to psychologists as participants as they appeared more willing to share their experiences with a researcher whom they perceived as having a "shared experience" and thus sympathetic and understanding to their situation (De Tona, 2006), and they were hopeful that I may be more knowledgeable about potential ways to revise the ISZSP. For instance, during recruitment, some participants were pleased that someone has finally embarked on a quest to evaluate the ISZSP, as it posed challenges for them in practice. Having this shared experience highlighted the perceived power relationship between me and the participants. The participants hoped that I had the power to improve the situation.

Moreover, my worldview and professional experience influenced the way in which I designed the study, constructed the evaluation guide, and the way I chose the lens for analysing and interpreting the data – drawing conclusions and making meaning of it (Kacen & Chaitin, 2006; Valentine, 2007). It was helpful for me to recognize and address the effects of these positions as an inherent part of my study (Alvesson et al., 2008; Berger, 2013; Drake, 2010; McLay, 2014; Sullivan & McCarthy, 2005) and to use dialogical reflexivity

as a means to monitor the tension between my co-participation and detachment from the participants as a means to enhance the rigour, credibility and trustworthiness of the study and its ethics (Alvesson & Skoldberg, 2000; Berger, 2013; Bradbury-Jones, 2007; Gemignani, 2011; Pillow, 2003; Scott, 1997). Dialogical reflexivity enabled me to interrogate the ways in which who I am could both assist and hinder the process of co-constructing knowledge.

Having similar experiences with the psychologists who participated in my study positioned me in the role of the “insider”. This offered me a way of understanding participants' reactions to the ISZSP, both in video data and expert review data. It also enabled a better in-depth understanding of participants' insights and interpretations of their experiences with the ISZSP in a manner that would be improbable unless I had been through similar experiences myself. Through reflection, I became aware that I had listened more closely to the voices that were criticizing the Westernized and linguistic construction of the ISZSP, and the static process of IQ assessment. I realized that this was influenced by my personal and political beliefs, as well as my theoretical orientation.

As a Black African educational psychologist, and as umZulu, I have, for a long time, had a passion for issues pertaining to mother tongue instruction and bilingual instruction in the school context. This in turn translated to a desire for mother tongue and bilingual assessment of intellectual functioning. This is coupled with my passion for dynamic assessment as influenced by Vygotsky's (1978, 1986) theory. I constantly reflected on this, to ensure that my personal beliefs and prejudices did not lead to blurred and biased interpretations of the data. I sought to remain continuously alert, rigorous and vigilant – reflecting on both differences and commonalities between my experiences and those of the participants – to avoid projecting my own experiences and using them as the lens to interpret and understand participants' experiences (Berger, 2013).

### **5.5 Procedures for Phase I of the Study**

The procedures that were followed to execute the first phase of the current study are discussed below. The section provides details regarding the methods that were adopted, viz., the sampling technique, the development of the data collection instrument, data collection and data analysis.

### 5.5.1 The sampling approach and the sample.

Participants for this phase were selected by means of purposive sampling. Purposive sampling is based on the assumption that “to discover, understand and gain the most insight, the sample has to be carefully selected as one that will yield the most knowledge” (Benjamin, 2000, p. 90). A variety of different strategies can be used to purposefully select “information-rich cases” that will illuminate the research questions (Babbie & Mouton, 2005; Patton, 2002, p. 230).

The ISZSP is an IQ test that was translated to assess isiZulu-speaking children, and must be administered by an isiZulu-speaking tester. Thus, isiZulu-speaking psychologists were selected to conduct an expert review of the ISZSP. In keeping with Bakhtinian philosophy, the participating psychologists were depicted as authors because of to their role during psychological assessment. Portraying the psychologists as authors during psychological assessment was consistent with Bakhtin's (1981, 1984) dialogism owing to the current standardized and monologic format of psychological assessment. This is the case since the process of psychological assessment is dominated by the *psychologist-as-author*, who brings into the assessment context Western ideologies and assumptions of what intelligence is and how it should be assessed (Bakhtin, 1984; Beaujean, 2015; Kwate, 2001; Miyazaki, 2009).

The study was located in the province of KwaZulu-Natal, in South Africa. At the time of its completion, there were 8,392 registered psychologists in South Africa. Out of 913 registered psychologists in the province of KwaZulu-Natal, about 19% (N = 176) of them are Black African psychologists (HPCSA, 2016). The first sample that was recruited for this study comprised 10 female Black African psychologists whose mother tongue is isiZulu, within KwaZulu-Natal. I attempted to recruit male psychologists, but they were not able to email their expert review reports in good time before the study ended.

The criteria for inclusion in this sample included having experience in assessing intellectual functioning using the ISZSP. This included the training years at Master's and internship levels. The participants needed to have experience of three or more years of registered independent practice (see Table 1), and they must have administered the ISZSP at least five times as this would have afforded them adequate exposure to it. All participants indicated that they had used the ISZSP more than five times.

Table 1

*Details of the Participating Psychologists*

Participant	No. of Years in Registered Independent Practice	Area of Residence and Practice
ERR01	7 years	Rural
ERR02	12 years	Rural
ERR03	6 years	Rural
ERR04	8 years	Semi-urban
ERR05	8 years	Semi-urban
ERR06	10 years	Semi-urban
ERR07	9 years	Urban
ERR08	10 years	Urban
ERR09	12 years	Urban
ERR10	9 years	Urban

Note: ERR = Expert Review Report

I used the HPCSA and MedPages databases to access the contact details of registered psychologists. The psychologists were then contacted telephonically and informed about the study. After they had agreed to participate, I emailed a letter to each participant that explained all the information regarding the study (Appendices 1 & 2). I was able to meet in person with four participants who consented to partake in the study. Upon consent, the other six participants emailed signed consent forms to me.

### **5.5.2 Data collection instrument: The evaluation guide.**

I developed the evaluation guide (Appendices 3 & 4) for this study for the evaluation of the entire ISZSP, inclusive of the manuals, the Verbal Scale and the Performance Scale (each with five subtests). In developing this guide, I was guided by the study's research questions and literature, particularly the *International Guidelines for Translating and Adapting Tests* (ITC, 2010) and the *International Guidelines for Test Use* (ITC, 2013). This evaluation guide required an examination of the ISZSP in relation to how its developers/publishers had taken into consideration the *International Guidelines for Translating and Adapting Tests*. In addition to this, the guide had seven questions that inquired about experiences and views regarding:

- a) the appropriateness of translation of the ISZSP;

- b) the appropriateness and relevance of the language, instructions, test items, rubrics and scoring criteria of the ISZSP;
- c) the monolingual administration of the ISZSP;
- d) the strengths of the ISZSP;
- e) the challenges faced by isiZulu-speaking learners in understanding the language used in the ISZSP;
- f) the manner in which cultural and linguistic factors have a bearing on the use of the ISZSP for Zulu-speaking children; and
- g) mechanisms that could address the challenges (cf.: Appendices 3 & 4).

*\* It must be noted that this evaluation guide was developed solely for the purposes of this study.*

The evaluation guide enabled the psychologist-as-author to become a dialogical narrator (Bakhtin, 1981; Hermans et al., 1992) and to give an account of psychologists' views regarding the cultural and linguistic appropriateness of the ISZSP. The evaluation guide contained broad open-ended questions, which gave the participants the opportunity to provide detailed accounts from their viewpoints as opposed to brief answers or general statements. This aided me to gain insight into the participants' world of experiences written in their reports in order to understand and interpret the meaning of their utterances.

### **5.5.3 Translation of the evaluation guide and other data collection tools.**

All information letters, informed consent forms and the evaluation guide that were developed in English were translated into isiZulu for the purposes of data collection. *[The administration manual of the ISZSP was already translated into isiZulu by the HSRC (Landman, 1988b), therefore no further translation of the ISZSP was necessary.]* I adopted the process of forward-backward translation, as literature suggests that a forward-only translation method is inadequate to establish semantic equivalence in translation; the backward translation is useful as a further method to verify the sufficiency of translation (Maneesriwongul & Dixon, 2004; Nurjannah, Mills, Park, & Usher, 2014). I followed Brislin's (1970) model of forward-backward translation (described below), as it is considered to be the best translation and most reliable method for developing an equivalent translated instrument (Beaton, Bombardier, Guillemin, & Ferraz, 2002; Flisher, 2007; Jones, Lee, Phillips, Zhang, & Jaceldo, 2001; Nurjannah et al., 2014; Regmi, Naidoo, & Pilkington, 2010; Rosnow & Rosenthal, 1996; Torop, 2002; Weeks, Swerissen, & Belfrage, 2007). The strength of this

model lies in the step of backward translation through which translation inaccuracies can be meritoriously identified (Nurjannah et al., 2014; Regmi et al., 2010).

I recruited two bilingual psychology students to translate the information letters, consent forms and the ISZSP evaluation guide. Both students were isiZulu first language speakers who speak English as a second language. They had completed an Honours degree in Psychology and were studying towards a professional Master's degree in psychology at the time that data collection tools were developed. These students were invited because of their understanding of the purpose and content of the documents, as well as their understanding of the target population. According to Brislin (1970, 1980) this would maximize the equivalence of translation and assure the appropriateness of language usage in the translated documents. The translation process unfolded in the following steps of Brislin's (1970) model:

- a) Forward translation. The translation process began with forward translation of the documents from the source language (English) into the target language (isiZulu) by a bilingual native Zulu psychology student.
- b) Review of the translation. I reviewed the documents for incomprehensible or ambiguous wording. I also identified and corrected grammatical errors in the translated documents.
- c) Backward translation. The second bilingual native Zulu psychology student back-translated the documents from isiZulu to English, without having seen the original documents. This manner of blinding ensured that the meaning of the translated version of the documents would be sufficiently replicated in the back-translated version.
- d) Comparison of the source language version and the back-translated version. I compared the back-translated version of the information letters, consent forms and the evaluation guide with the original versions for accuracy and equivalence. I examined the translated meaning in both source and target languages. The discrepancies that occurred during the process were negotiated between me and the two bilingual translators. Most of the discrepancies were owing to isiZulu dialectal variations.

Nurjannah et al. (2014) highlight that even though the forward-backward translation technique is an intellectually rigorous process that emphasizes the semantics and technical aspects of translation, it is not a guarantee of achieving conceptual equivalence. Some terms may be translated precisely in their literal sense (Jones et al.,

2001; Maneersriwongul & Dixon, 2004; Regmi et al., 2010), “but a literal translation may fail to convey the ideas or attitudes inherent in the original choice of words” (Croot, Lees, & Grant, 2011, p. 1003). I encountered this during the translation process for the current study, where there were no single isiZulu equivalent words for some of the text in the documents. This problem was resolved by the use of loanwords and the implementation of transliteration. Transliteration means to write or describe words or letters using letters of a different alphabet or language (Stevenson & Lindberg, 2015). It refers to the process of replacing or supplementing words or meanings of one language with meanings of another, as sometimes the exact equivalence or exact meaning might not exist (Regmi et al., 2010). This occurred when the exact equivalence of meanings rather than comparative equivalence was required, as demonstrated below:

- Journal article: *i-athikhile ye jenali (iphepha lephephabhuku lezocwaningo)*
- Electronic: *elekhthronikhi (ngokukagesi okwikhompyutha)*
- Code and password: *ngekhodi ne phasiwedi (amagama noma izinombolo eziyimfihlo ezivumela kuphela labo abanelungelo ukuba babone ifayela)*
- Details regarding the administration: *imidanti emayelana ne-administreyishini (administration – indlela yokusetshenziswa kwethuluzi lokuhlola ngesikhathi sokuhlola)*
- Items: *ama-ayithemu (izinto ezimi ngazinye ngaphakathi kwisivivinyo)*
- Rubrics: *ama-rubhrikhi (amazinga okukala ukwenza/ukusebenza kwabantu abathile ekuhlolweni)*
- Factors: *ama-fekhtha (izinto eziba nomthelela ngendlela ethize kwezinye)*

As it can be noted in the examples above, where the transliteration process was followed, I used italics, giving the closest meaning in brackets with some explanations (Jootun, McGhee, & Marland, 2009; Regmi et al., 2010).

#### **5.5.4 Piloting the evaluation guide.**

Following the development and translation of data collection protocols, I engaged in a process of piloting the research design. As recommended by several researchers (Beebe, 2007; Bloor, 2001; Flisher, Ziervogel, Chalton, Robertson, 1993; Jariath, Hogerney, & Parsons, 2000; Kilanowski, 2006; Kim, 2010; Mays & Pope, 2000; Sampson, 2004), a pilot study was carried out to test the potential of the dialogic research methodology and research design, as well as methods to generate data which would inform the analysis of the cultural and linguistic appropriateness of the ISZSP. The pilot was envisaged to provide for an opportunity to make adjustments and revisions to the research design, if necessary,

before the commencement of the main study (Beebe, 2007; Kim, 2010; Sampson, 2004). Two female isiZulu-speaking psychologists in Pietermaritzburg were recruited to evaluate the ISZSP using the evaluation guide (Appendices 3 & 4).

At this stage of the study, I was concerned if the evaluation guide would make sense to the participants and guide them accordingly as they write their expert review reports. The findings of the pilot showed that the evaluation guide was comprehensible. Participants were able to provide meaningful data in terms of their views regarding the cultural and linguistic in/appropriateness of the ISZSP. Therefore, no changes or adjustments were made to the evaluation guide before the commencement of the main study.

#### **5.5.5 Data collection: Phase I.**

The social constructionist paradigm accepts that data collection is an interactive process whereby the researcher and the participants are personally involved, influencing each other through mutual interaction (Mertens & McLaughlin, 2004). The following section describes the data collection procedure and data analysis for the first phase of the study. The data collection process began as soon as ethical clearance was obtained from the University of KwaZulu-Natal's Humanities and Social Sciences Research Ethics Committee, as well as gatekeepers' permission from the KwaZulu-Natal Department of Education (KZN DoE) (Appendices 5 & 6).

Psychologists' data were gathered by means of the expert review method. The purpose of an expert review is to evaluate the cultural validity of a scale in contrast to the definition of the determinant that it is intended to measure (Ritchie & Lewis, 2003; Skinner, 2007; Sharp, Skinner, Serekoane, & Ross, 2010). This method entails assembling a group of experts with methodological and content expertise of the psychological measure or instrument to evaluate its features (Hall & Rist, 1999; Meijer et al., 2002; Ritchie & Lewis, 2003; Skinner, 2007), and to identify translation incongruities and cultural barriers with the source language of the instrument in order to evaluate the appropriateness and comprehensiveness of the translated instrument (Bornman et al., 2010; Chen, Chiou, & Chen, 2008). This may include question wording, instructions, structure, flow, and layout of the instrument (Ritchie & Lewis, 2003; Sharp et al., 2010).

The expert review method was chosen as it has been found to be an effective method of obtaining feedback from five to ten experts in the field and in the methodology of the instrument being evaluated. They would evaluate the appropriateness and relevance of the instrument for the target population (Olson, 2010; Polit & Beck, 2006). In addition to the



evaluation, the expert reviewers are required to suggest recommendations to address any incongruences or discrepancies that they would have identified (Banister et al., 2011; Chen et al., 2008; Olson, 2010). For the current study, the expert review method was found to be appropriate, and coherent with the research design that aimed to qualitatively evaluate the contextual relevance and accuracy of the translation of the ISZSP. To achieve this objective, practising isiZulu-speaking psychologists with experience and expertise in the ISZSP were sampled.

The participating psychologists were asked to qualitatively review the ISZSP in terms of its cultural and linguistic appropriateness for assessing isiZulu-speaking children. Psychologists were asked to examine the translation of the ISZSP and its cultural and linguistic appropriateness, using the evaluation guide that I developed informed by literature and the *International Test Commission Guidelines for Translating and Adapting Tests* (ITC, 2010) (Appendices 3 & 4). The evaluation guide asked the participants to evaluate the ISZSP reflecting on their experiences, as well as making reference to the guidelines for translating and adopting tests, with which they were provided.

In comparison to other qualitative methods of data collection, such as individual interviews and focus groups, the expert review method afforded the participants more time to evaluate the tool thoroughly than the other methods would have (Sharp et al., 2010). The participants were given 10 weeks to review the ISZSP and compile their reports. This allowed the participants to engage with the ISZSP extensively, reviewing its language as well as its cultural sensitivity. I requested the participants to write their reports in isiZulu, but code switching between English and isiZulu was allowed.

#### **5.5.6 Data analysis: Contextualized thematic analysis.**

Data were analysed in a manner that was embedded in the social constructionist paradigm. For the analysis of expert review reports, I drew on and blended elements of dialogism and thematic analysis. Although thematic analysis is a standardized step-by-step method, applying principles of dialogism allowed the process for this study to be flexible and context-specific, which facilitated unfinalized data interpretation and meaning-making (Aveling et al., 2014; Gillespie & Cornish, 2015; Grossen, 2010; Salgado et al., 2013; Stewart, 2011).

Thematic analysis offers researchers the ability to categorize and compare data (Maxwell 2005; Rossman & Rallis, 2003), which facilitates the exploration of how the participants used words and language to discuss their experiences. However, this approach to analysis has

been argued to be limited in its effectiveness as it isolates individual utterances from the chain of utterances within which they are entrenched (Gillespie & Cornish, 2015; Grossen, 2010; Salgado et al., 2013; Stewart, 2011). Thematic analysis is a tool for the identification of themes, but it does not provide the means to go beyond the identification of themes and explore dynamic contextual elements within those themes (Stewart, 2011). This requires an additional layer of analysis to illuminate the socially constructed meaning that can be found in the themes. For the current study, this layer was a Bakhtinian analysis of utterances within each theme.

During the analysis of the expert review reports, thematic analysis involved identifying, analysing and reporting themes that emanated from the data (Braun & Clarke, 2006) with the aim of interpreting and drawing meaning from the participants' experiences of using the ISZSP. Infusing this process with Bakhtinian dialogism made it possible for me to pay specific attention to the ways in which the participants' worldviews were shaped as they drew on past and present utterances to share their experiences in the reports (Stewart, 2011). In this sense, I proceeded further from thematizing to assume a comprehensive analysis of each expert review report. I paid attention to and considered each participant's voice from various perspectives, i.e., their I-positions and the contexts from which the voices emerged. This helped to eliminate some of the technical barriers that impede the participants' ability to become active interpreters of the data that they present to researchers (Paliadelis & Cruickshank, 2008). The following sections describe how this process was adopted.

#### ***5.5.6.1 Familiarising oneself with the data.***

To familiarize myself with the data, I read and re-read the expert review reports. It was particularly important for the reports to be read many times as "the 'meaning' does not reside ready-made 'in' the text or 'in' the reader but happens or comes to being during the transaction between reader and text" (Rosenblatt, 2005, p. 7). During this process, I took notes of any immediate codes that came to mind, which aimed to answer the research questions. I was also able to identify patterns across the data set.

#### ***5.5.6.2 Generating initial codes.***

I started coding by paying attention to repeated patterns of meaning derived from repeated readings. This involved a rigorous examination and organization of smaller units of data extracts into meaningful groups (Braun & Clarke, 2006). These were organized in relation to the research questions. Informed by the philosophy of dialogism, I extended this process by searching for different forms of voices or self-positions that the participants

presented (Hermans & Hermans-Jansen, 1995; Hermans & Hermans-Konokpa, 2010). I tracked and highlighted all recurring images, words, metaphors, idioms, inconsistencies and contradictions in the reports that described the participants' experiences of using the ISZSP (Paliadelis & Cruickshank, 2008).

This highlighted the manner in which the participants viewed themselves in relation to their relationship with the children they have assessed, and in relation to their relationship with the ISZSP itself. These relationships are characterized by tensions between their professional ethical obligation as psychologists and their actual practice when administering the ISZSP to isiZulu-speaking learners. This tension largely stems from various factors such as the dominance of the Western ideologies and culture in the ISZSP, and the discord between the language of the ISZSP and the current spoken isiZulu. I paid careful attention to these as they assisted me to understand the voices pertaining to the identified tensions and relationships. Adding this layer of analysis assisted me to contextualize the participants' responses to the research questions. It also allowed me to begin to organize the codes in a manner that would facilitate the identification of preliminary themes.

#### **5.5.6.3 Searching for themes.**

After generating the codes, I drew upon the participants' words to organize the codes into broader themes, keeping track of which codes fall under which theme. I also organized the themes according to which main themes might encompass subthemes (Braun & Clarke, 2006). I matched the themes to relevant data extracts, establishing relationships between themes and between levels of themes based on the participants' responses in relation to the research questions. Thereafter, I engaged in a process of exploring the themes in terms of how participants' responses were constructed and structured (Stewart, 2011). This helped to develop an understanding of the participants' experiences of using the ISZSP.

#### **5.5.6.4 Reviewing, defining and naming themes.**

The process that followed involved reviewing and refining the themes. I reviewed all the themes across each participant's expert review report and the entire data set. I then organized the themes in terms of internal homogeneity (similarity among aspects of one theme) and external heterogeneity (distinctions between themes) (Braun & Clarke, 2006). Emphasis in this process is given to the ability of the themes and data extracts to construct a complete coherent picture. Themes were then defined by identifying the essence of each theme (Braun & Clarke, 2006). For this, I turned my attention to those aspects of the

research questions that each theme captured. In this way, the data's contribution to the theme was evaluated.

After this, I continued to move beyond thematic analysis and apply principles of dialogism. This helped to inform my understanding of the data. I explored the themes further to focus specifically on how the participants' individual experiences were shaped as they engaged in dialogue with me through the evaluation guide. As part of this process, I looked closely at the themes to examine how the participants' experiences were shaped in the data. For instance, some themes indicated that the participants' experiences were shaped by the discourse of policies related to psychological assessment practices, such as the standardized administration of the ISZSP. Furthermore, I analysed how each voice within each theme was a site for multiple voices, whether in contest or in agreement.

#### **5.5.6.5 Producing the report.**

The last step of thematic analysis involved the documentation of the final themes into this thesis (Braun & Clarke, 2006). The meanings of each theme, and the excerpts from the data that reinforce these themes, are included in Chapters 6 and 7.

### **5.6 Procedures for Phase II of the Study**

The procedures for the second phase of the current study are discussed below. This includes the recruitment of the sample, details of the data collection instrument, data collection, and data analysis.

#### **5.6.1 The sampling approach and the sample.**

Purposive sampling was used to recruit isiZulu-speaking learners. The participating learners, as performers of assessment tasks, were depicted as "heroes" in this study, just as Bakhtin (1984) designated the concept of the hero the performer of the dialogic act. Heroes in the monologic standardized psychological assessment process are authored by psychologists using tests that are permeated by Western assumptions and worldviews (Beaujean, 2015; Kwate, 2001; Miyazaki, 2009). In the current assessment context, the *child-as-hero* is led to ventriloquate (Bakhtin, 1984) the positions brought forth by the *psychologist-as-author*. This sample comprised 12 learners, both male and female, whose mother tongue is isiZulu. Permission was granted by the KZN (DoE), and access was given by school principals to recruit learners on the school premises (Appendices 6 & 7). The study was explained to learners, and they were given information letters together with consent forms (Appendices 8 & 9) to give to their parents. I notified learners on the date

when I would return to collect the consent forms from parents, and asked the learners to bring the forms with them to school on that day. Once all returned consent forms had been collected in each school, I identified the learners whose parents had given consent, and sought their assent to participate in the study (Appendices 10 & 11). At the end of this process, 12 learners were recruited for the study.

The participants were recruited from urban, semi-urban and rural areas in Pietermaritzburg and surrounding areas. To avoid test-wiseness, only those learners who had not taken an intelligence test prior to the study were recruited (Lefaivre, Chambers & Fernandez, 2007). As mentioned in Chapter 1, the age for the norms of the ISZSP ranges from 9 years, 0 months to 19 years, 11 months. Learners were recruited within this age range. The learners were recruited from schools where the LoLT is English, and schools where the LoLT is isiZulu. This was done because the ISZSP is used to assess both these groups of learners. At the time of the study, six participant learners attended schools where the LoLT is isiZulu and six attended schools where LoLT is English. Six of the learners resided in rural areas, four in semi-urban areas and two in rural areas. Their ages ranged from 10 to 17 years. The 15-year-old learners were over-represented in the sample. This was owing to parental consent and assent; more 15-year-old learners were available to participate than those of other ages. As displayed in Table 2 below, the second sample comprised six female learners and six male learners.

Table 2

*Details of the Participating Learners*

Participant	Gender	Age	LoLT at School	Area of Residence
L01	Male	13 years	isiZulu	Rural
L02	Female	10 years	isiZulu	Rural
L03	Male	12 years	isiZulu	Rural
L04	Male	11 years	isiZulu	Rural
L05	Male	13 years	isiZulu	Rural
L06	Female	15 years	English	Semi-urban
L07	Female	15 years	English	Semi-urban
L08	Female	17 years	English	Semi-urban
L09	Female	15 years	English	Urban
L10	Female	15 years	English	Semi-urban
L11	Male	16 years	isiZulu	Rural
L12	Male	15 years	English	Urban

Note: L01 = Learner 1; L02 =Learner 2, etc.

### **5.6.2 Data collection instrument: The individual scale for Zulu-speaking pupils.**

The ISZSP was the second instrument used for data generation in this study. The development and construction of the ISZSP is discussed in detail in Chapters 1 and 2. As mentioned in Chapter 1, the ISZSP is an isiZulu translation of a Xhosa version of an English tool, NSAIS, which was published by the HSRC to assess intellectual functioning in isiZulu-speaking children. The ISZSP is currently listed under: “*Tests that have been classified but not reviewed*” by the Professional Board for Psychology in the South African Government Gazette No. 37903, dated 15 August 2014 (Department of Health [DoH], 2014). The following presents the available details on the psychometric properties of the ISZSP. It is important to note that for a psychometric test to be deemed reliable for clinical use, the reliability coefficient should be 0.9 or higher (Bland & Altman, 1997; DeVon et al., 2007; Friberg, 2010; Nunnally & Bernstein, 1994; Polit & Beck, 2004; Tang et al., 2014). Lower reliability coefficients are acceptable for research purposes as they are considered to be part of the process of test development and validation, which is different from the use of the test for clinical diagnostic purposes.

#### **5.6.2.1 Norms and validity.**

The standardization sample that is assumed to have been drawn for the ISZSP ranges from 9 years, 0 months to 19 years, 11 months (Landman, 1988c). Due to the unavailability of the Part I Manual of the ISZSP at the time of the current study, the details regarding the standardization and norming of the ISZSP, as well as details of validation studies, were not available.

#### **5.6.2.2 Reliability.**

The Part III Manual of the ISZSP provides the reliability coefficients ( $r_{tt}$ ) and standard error of measurement (SEm) for the ISZSP by age and subtest. Landman (1988c) notes that the reliability coefficients for all subtests in the ISZSP, with the exception of the Memory subtest, were calculated by means of the Kuder-Richardson formula 8. For the composite scales, i.e., VIQ (Verbal Intelligence Quotient), PIQ (Performance Intelligence Quotient) and GIQ (Global Intelligence Quotient), Mosier's formula was used. For the Memory subtest, the reliability coefficients were computed by means of the Kuder-Richardson formula 21 (Landman, 1988c). [See Appendix 12 for a summary of the reliability coefficients ( $r_{tt}$ ) and standard error of measurement (SEm) for the ISZSP by age (Landman, 1988c).] It should be noted that this study was not designed as a large-scale study that would quantitatively

evaluate the ISZSP, but as a small-scale study, with the intention to analyse data qualitatively.

### **5.6.3 Piloting audio-visual recording procedures.**

A total of four isiZulu-speaking learners were recruited for the pilot study. All four learners were recruited from a rural area surrounding Pietermaritzburg. Two of them were male and two were female; their ages were: 10, 11, 12 and 13 years. An isiZulu-speaking research assistant, who was an intern educational psychologist at the time, evaluated the learners using the verbal scale of the ISZSP. All sessions were video recorded.

I used the pilot phase to test the functioning of the audio-visual recording equipment. Adjustments had to be made in relation to the venue where learners were assessed. Initially, I had anticipated that, for the main study, twelve learners would be assessed individually in the audio-visual recording facility with a one-way screen/window at the Child and Family Centre (CFC) within the Discipline of Psychology, University of KwaZulu-Natal, in Pietermaritzburg. Permission to use these facilities had already been granted by the director of the CFC (Appendix 13). This proved to be a challenge during the pilot study as the participants' parents were not able to travel to the CFC. To resolve this, the learners were assessed in their schools, in secluded offices, as permission was granted by the DoE (Appendices 6 & 7). During the pilot study, I also explored means by which the key Bakhtinian tenets might be operationalized in the methodology and data analysis. The results of the pilot affirmed the appropriateness and relevance of the research design, and of data generation methods and tools.

### **5.6.4 Data collection: Phase II.**

To collect data for this phase, it was imperative to recruit a research assistant who would assess 12 learners using the ISZSP. I experienced some difficulties with recruiting a registered psychologist to assist in this data collection phase. Due to the amount of time that this process required, registered psychologists were not available. Therefore, I recruited a female isiZulu-speaking intern psychologist as a research assistant. As I am a psychologist myself, recruiting a research assistant to conduct the assessment with the participating learners assisted in avoiding the ethical challenge of assuming dual roles and multiple relationships with the participants (HPCSA, 2006; Kewley, 2006). The research assistant was registered with the HPCSA, and had experience of administering the ISZSP more than five times, since her training at Master's level. She signed a contract with a confidentiality pledge (Appendix 14) before this data collection process began.

I explained the data collection process to each learner, informing them that they would be asked a series of questions, and their responses would be written down in the answer booklet. I explained that each session would be video recorded as explained in the information letter and the consent form, which they signed together with their parents/guardians. I emphasized to each learner that their identity and data, both on paper and video, would be treated with confidentiality. The research assistant used the instruction manual of the ISZSP to administer the Verbal Scale to the 12 learners. The learners were each assessed and recorded in secluded offices within their school premises, as travelling to the CFC proved to be a challenge (as discussed in section 4.5 above). The number of hours for the audio-visual data tallied to 7 hours and 49 minutes.

I used digital audio-visual recording equipment to capture the assessment process for each learner. I trained and familiarized myself with the use of the digital audio-visual recording equipment before I began collecting the data. This is essential for addressing technical limitations of using video to collect data (Caldwell & Atwall, 2005). Audio-visual recording during the administration of the ISZSP aided me in gaining an understanding of the intricacies and dynamics of processes of interaction, with a specific focus on cultural and linguistic influences on the assessment process (Silverman, 2000). It must be noted that during the recording of each session, I set up the equipment to record the sessions and left the room. This was to avoid any interference that my presence could cause during the assessment process.

Caldwell and Atwall (2005) assert that audio-visual recording improves the credibility of the research design as observations can be scrutinized and used to record behaviour and observations. The audio-visual data captures utterances in the form of verbal and non-verbal interactions simultaneously, allowing for these utterances to be observed and analysed in detail (Caldwell & Atwall, 2005; Flewitt, 2006). This is in line with the philosophy of dialogism and social constructionism as adopted in this study. Video data has also been found to reflect comprehensive socioculturally situated discursive and ideological practices as embodied in interactions of participants and researchers (Caldwell & Atwall, 2005; Flewitt, 2006; Heath, Luff & Svensson, 2007). Furthermore, audio-visual recordings allowed me to explore ways in which participants approached the assessment situation in and through interaction with the assessor as well as the ways in which language-in-interaction influenced the participants' completion of assessment tasks (Heath & Hindmarsh, as cited in May, 2002).



### **5.6.5 Transcription of audio-visual data.**

I recruited a female bilingual transcriber who was working towards completing her professional Master's degree in counselling psychology. The transcriber was a native isiZulu-speaker, with adequate English proficiency. She signed a contract and a confidentiality pledge (Appendix 15). This was essential to ensure confidentiality and anonymity of participants as visual images make participants easily identifiable (Flewitt, 2006). Transcription is considered to be:

...a representational process that encompasses what is represented in the transcript (e.g., talk, time, nonverbal actions, speaker/hearer relationships, physical orientation, multiple languages, translations); who is representing whom, in what ways, for what purpose, and with what outcome; and how analysts position themselves and their participants in their representations of form, content, and action (Green, Franquiz, & Dixon, 1997, p. 173).

This means that transcription is more than the mechanical collection and use of notation symbols (Davidson, 2009). Researchers make choices that represent some actions within the data in certain ways (Davidson, 2009; Kvale, 1996). These choices are inherently correlated with theoretical positions and how researchers position themselves and the participants in the research process (Bucholtz, 2000; Jaffe, 2007). Thus, to determine these positions, transcription of video data involves familiarizing and close observation of data through repetitive vigilant listening and watching (Bailey, 2008). This familiarity with data and responsiveness to what is there expedites insights and ideas which emanate during analysis (Bailey, 2008).

To facilitate this process for the current study, the transcriber captured very comprehensive features of dialogue such as speediness, tone of voice, timing, pauses, bodily gestures and nonverbal behaviour from the video data (Green et al., 1997). These are fundamental components for analysing and interpreting data because the meanings of utterances are profoundly formed by the way in which something is said in addition to what is said (Bailey, 2008; Davidson, 2009).

The transcription symbols that were used in this study are displayed in Table 3 below:

Table 3

*Transcription Symbols for Video Data*

Symbol	Meaning	Example
(.4)	Numbers in parentheses indicate elapsed time in silence in seconds.	(.14) What is that?
(.)	A dot in parentheses indicates a tiny gap, probably no more than one-tenth of a second.	so (.) it differs
< >	Text in angle brackets indicates the learner's nonverbal bodily gestures.	<shrugs shoulders> <rolls eyes>
<< >>	Text in double angle brackets indicates the research assistant's (Psyc) nonverbal bodily gestures.	<<looks at learner>> <<impatient expression>>
[ ]	Text in square brackets indicates text that has been translated from isiZulu into English.	Yini leyo? [What is that?]
_____	Underscoring indicates the isiZulu words that were not translated into English.	I don't know <u>ingxibongo</u> .
<del>strikethrough</del>	Strikethrough indicated interfering words that have been identified by the researcher, which were reported by the learner, but are not in the ISZSP.	yabona <del>izinyala</del>
.h	A row of h's prefixed by a dot indicates inhalation. The length of which is indicated by the number of h's.	.hhhh Bricks are made of cement
h.	A row of h's suffixed by a dot indicates exhalation. The length of which is indicated by the number of h's.	hhh. It's quite similar
oo	Degree signs indicate words spoken very softly or quietly.	I don't know <sup>oo</sup>
( )	Empty parentheses indicate the transcriber's inability to hear what was said.	By shape, ja, ( ) by shape
(( ))	Text in double parentheses indicates the researcher's descriptions.	If you walk out in the sun you might end up being black ((scorched))

I repeatedly checked all transcripts, individually, by reading them while viewing the videos for verification purposes. Only the extracts that have been used in this thesis were translated into English for the benefit of the reader.

### 5.6.6 Conversation analysis.

For the analysis of video data, conversation analysis was adopted, which followed the transcription of data. Conversation analysis is an approach that analyses communicative

practices that people use when interacting with one another *in situ* (Drew, Chatwin, & Collins, 2001; Potter, 2004). This method allows for an analysis of talk-in-interaction and meaning-in-interaction, as well as the interplay between the visual and the spoken in naturally occurring interactions (Matusov, 2009; Potter, 2004). Language and talk-in-interaction is not viewed in semantic terms, but as a practical relational act and a series of actions negotiated in the course of dialogue.

Conversation analysis fits within the social constructionist paradigm. It seeks to address how social realities are constructed through language, and the reflexivity of people's interpretations of meaning during social interactions (Korobov, 2001; Potter, 2004). This analytic approach in this study began with the view that context is realized through language, and it is through interaction that the context is constructed, built and managed (Korobov, 2001; Mason, 2007; Matusov, 2009). In analysing this context, I became fully aware of the utterances in the video data that responded to the research questions, i.e., what was said, when it was said, as well as how, by whom and to whom it was said (Heritage, 2004; Peräkylä & Vehviläinen, 2003). The following are three interrelated features of conversation analysis that guided the analysis of video data in this study:

#### **5.6.6.1 Sequencing and sequentiality.**

Conversation analysis posits that the interaction between participants in social interaction does not merely emerge on a step-by-step basis, but the participants' actions are sequentially organized (Heath, Hindmarsh, & Luff, 2010; Heritage, 1984, 1997; Hutchby & Wooffitt, 2004). Communicative actions in social interactions are positioned; they are designed in relation to, occasioned by, and are dependent on prior actions, which form the foundation to subsequent actions (Heath et al., 2010; Heath, Luff et al., 2007; Schegloff, 2007). The sequential characteristic of talk is demonstrated by the context-shaped, context-sensitive and context-renewing nature of an utterance (Heath et al., 2010; Seedhouse, 2004, 2005). This is highlighted in Heritage's (1984) argument:

A speaker's action is context shaped in that its contribution to an on-going sequence of actions cannot be adequately understood without reference to the context – including, especially, the immediately preceding configuration of actions – in which it participates. (p. 24)

This is synonymous with Bakhtin's (1981) postulation that utterances are of a chain-like nature; that their meaning depends on prior utterances. Thus, the position of an action or

utterance within the emerging course of actions is central to the ways in which it is understood (Caldwell & Atwall, 2005; Flewitt, 2006; Heath et al., 2010).

The most predominant manifestation of the sequencing and sequentiality of utterances is the *adjacency pairs* (Heath et al., 2010; Hutchby, 2001; Schegloff, 2007; ten Have, 1999). Adjacency pairs refer to the paired utterances which are systematic, with the first pair part (by speaker 1) compelling the construction of the second pair part (from speaker 2), such as in: questions/answers, invitations/acceptances, invitations/declinations, and the like (Hutchby & Wooffitt, 2004; Schegloff, 2007; ten Have, 1999). Consequently, when the first pair part is produced, the second pair part becomes conditionally relevant. It is noteworthy that owing to this principle of conditional relevance, the absence of the second pair part after the first pair part has been uttered is in itself a perceptible absence (Hutchby & Wooffitt, 2004), as silences are utterances addressing the prior utterance (Bakhtin, 1981; Holquist, 1990; Wertsch, 1990, 1991). As posited by Schegloff and Sacks (1973, as cited in Hutchby & Wooffitt, 2004):

By an adjacently positioned second [utterance], a speaker can show that he understood what a prior [utterance] aimed at, and that he is willing to go along with that. Also, by virtue of the occurrence of an adjacency produced second, the doer of the first can see that what he intended was indeed understood, and that it was or was not accepted (p. 41).

The above postulation emphasizes that adjacency pairs serve the purpose of attaining intersubjectivity – achieving and demonstrating shared understanding between interlocutors. This renders adjacency pairs as templates for interpretation. An example of adjacency pairs is illustrated below, in which the testee was required to identify one out of four pictures that corresponded with the word uttered by the assessor:

Psyc: Intombazane [A girl].  
L10: <looks at card> Intombazane [a girl] ( ) <pages to the next card>  
Psyc: <<stops L10 by putting the cards down on the table>> Ungaphenyi [Do not turn over].  
L10: Oh? h...  
Psyc: Okwakho uk'khomba [Yours is to point].  
L10: <points at card> Number four. <shakes head, widens eyes, raises eyebrows>

During the analysis of this study's audio-visual data, all utterances, including words, events, actions, gestures, silences and all aspects of non-verbal behaviour were viewed as structurally organized by interactants, and were considered to be performing social actions that are largely bound up with the broader social activities associated with the context of the dialogue (Heath, Luff et al., 2007; Heritage, 2004; Hutchby & Wooffitt, 2004; Potter, 2004). The utterances were analysed in context as adjacent pairs, connected in sequences of talk and actions, as what the learner said and did was responsive to what the assessor had said and done before, and vice versa. In other words, when constructing their talk and actions, participants addressed each preceding talk and act; thus dialogue shaped and was shaped by the sociocultural context (Bakhtin, 1981; Drew et al., 2001; Heath, Luff et al., 2007; Heritage, 2004; Korobov, 2001).

#### 5.6.6.2 Turn-taking.

Another characteristic of social interactions is that partakers generally take *turns* in the communicative act (Heath, Luff et al., 2007; Schegloff, 2007). During dialogue, participants project utterances and require that the following talk and action should be performed by the subsequent participant in the next turn, maintaining or renewing the context for the next participant's talk (Heath, Luff et al., 2007; Schegloff, 2000, 2007). The turn is presumed to be the speaking space of one interlocutor up to the point when another takes over, and the former has stopped (Schegloff, 2007). The subsequent turn is allocated to the next interlocutor by the former by producing adjacency pairs (Heath et al., 2010; Hutchby, 2001; Schegloff, 2007; ten Have, 1999). The first pair imparts obligations on the next speaker, making it pertinent for the response to be in the next turn of talk (Heath et al., 2010). This is illustrated in the example below:

Psyc: Yini kushibhe ukuthumela incwadi ngeposi kunangebhanoyi? [Why is it cheaper to send a letter by post rather than by aeroplane?]

L01: (.5) <looks down at the table, then his hands, then at Psyc> ((sheepish)) h.. Yingoba [It is because] (.10) <puts pen in mouth, looking downwards> iposi [the post] (.) libuye lif' iposi [sometimes the post breaks down ((becomes dysfunctional))] ((unsure)).

Psyc: Yingoba iposi? [It is because the post...?] <looking at L01>

L01: ...h <looks down, then at Psyc> Liyafa [It breaks down ((becomes dysfunctional))].

Psyc: Ngabe kukhon' esiny' isizathu? [Is there another reason?]

L01: No.

This entailed examining audio-visual data for features of the interactions between the assessor and the testee, including how turns are allocated, how much gap or silence is present, and how participants' communication elements opened up ways for others to continue the interaction (Hutchby, 2001). This helped me analyse national and social languages, echoes and ventriloquations in the participants' utterances. Additionally, it helped me analyse participants' positions as directed by turns; power relations in terms of dominance and subordination; and how this contributes to or hinders the social construction of psychological assessment during the administration of the ISZSP.

### 5.6.6.3 Turn construction.

Turns at talk comprise *turn-construction* units, which can be uttered as sentences, paragraphs, phrases, single words, lexical items, and non-verbal performances (Schegloff, 2007; ten Have, 1999). Turn construction units are considered as social actions performed in turns or sequences (Heath et al., 2010; Seedhouse, 2004). For this component, the analysis of audio-visual data required an understanding of how utterances were designed, socially, culturally, historically, theoretically, ideologically, etc. For example:

- Psyc: Ngizokusho izinto ezimbili ezifana ngendlela ezithize [I am going to name two things that are alike in some way]. Uzongitshela ukuthi zifana ngandlelani [You must tell me in what way they are the same or alike]. Ungesabi ukuzama nakuba ungenaqiniso [Do not be afraid to try even if you do not know the truth]. Makesizame lez' ezimbili [Let us try these two]. Izimabuli, ibhola [Marbles, ball]. Kufana ngandlela thizeni izimabuli nebhola [Are marbles and the ball similar in some way]?
- L04: Imabula ngingayichaza ngokuthi yakhiwe nge *glass*, ibhola angikaze ngilibone elakhiwe nge *glass*, ibhola lakhiwe nge*plastic* [I can describe the marble as being made of *glass*, I have not seen a ball that is made of *glass*, the ball is made of *plastic*]. <shrugs shoulders>
- Psyc: Zifana ngani [How are they similar]? ((asks sternly))
- L04: <mumbles> (.6) Ngingathi zifana ngokuthi ziyaginqika zombili [I would say they are similar because they both roll].
- Psyc: Futhi kwenziwani [And what is it used for]? Abantu bakusebenzisa kuphi [Where do people use it]?
- L04: Ekudlaleni [in play].

The video extract above contains communication elements that constructed the utterances, i.e., the manner in which one participant spoke and acted – including non-

verbal elements, and how that had intermittent consequences for how the interlocutors responded, and in that way for the consecutive outcome of the consequent interaction (Drew et al., 2001; Heath, Luff et al., 2007). By producing the next talk and action, participants demonstrated an understanding of what constituted and constructed the prior utterance and the addressivity it sanctioned (Heritage 2004; Heath, Luff et al., 2007).

Overall, in applying conversation analysis to the analysis of video data, I thereby focused on the meaning of utterances and the context in interaction as well as the experiences of participants in dialogue, and how they jointly constructed social meanings during the administration of the ISZSP (Drew et al., 2001; Heritage, 2004). I organized these into themes for the categorization of utterances. I paid attention also to the past historical, cultural and social contexts of the communication spheres, which demonstrated that present utterances are drawn from and are constructed by prior utterances, which result in new utterances with the potential of shaping future utterances (Akhutina, 2003; Bhatia, 2011; Bakhtin, 1981; Hermans, 1997; Holquist, 1990; Shotter, 2000; Tsitsipis, 2004; Wertsch, 1990, 1991).

### **5.7 The Synthesis of Expert Review Data and Audio-visual Data**

To synthesise both data sets, I engaged in a process that analysed the meaning of utterances that lead to an unfinalized context-specific interpretation of data, consistent with the theoretical assumptions of dialogism. The emphasis on the context allowed me to become cognisant of the interrelations of an utterance's meaning with the context of past and present situations, and the implications of this meaning for the future utterances (Aveling et al., 2014; Elo & Kyngäs, 2007; Gillespie & Cornish, 2015; Hsieh & Shannon, 2005; Skinner, 2007; Stenvoll & Svensson, 2011). The crucial part of this analysis was identifying, comparing and contrasting the voices and dialogical dynamics identified in the talk and text of the participants (Aveling et al., 2014).

This allowed the probability that one utterance might hold multiple voices and meanings. I engaged in a process that organized the voices into related contextualized themes that emerged from all the data. To achieve this, I employed Gillespie and Cornish's (2015) six sensitizing questions for analysing the meaning of utterances, which are drawn from Bakhtin's dialogism. These questions are: *Who is doing the talking? What is the speaker doing? Who is being addressed? What are the responses? What is the context? and What future is constituted?* (Gillespie & Cornish, 2015) (see Table 4 below).

Table 4

*Sensitizing Questions for the Analysis of Utterances\**

Sensitizing Questions	Clues for Analysis
1. What is the context? 1.1 Are there overlapping contexts?	Utterance seems out of place. Contradictions, cautions, disagreements, tensions, perspective management ("but", "however", "yet", etc.), voices of Self, I-positions.
2. What is the speaker doing? 2.1 What prompted the utterance? 2.2 What is the alternative that is being argued against? 2.3 What is the speaker trying to set up?	Out of context, strong initiation. Perspective management ("but", "however", "yet", etc.), implications, resistance. Connections between present and future.
3. Who is being addressed? 3.1 What is assumed about the audience? 3.2 Does the utterance address any third parties?	Hesitation, rephrasing. Audience resistance. Utterance seems disconnected from immediate context.
4. Who is doing the talking? 4.1 Does the utterance contain a quotation? 4.2 How does the speaker respond to the quotation? 4.3 Is the utterance voicing a cultural trope? 4.4 What is the genre of interaction?	Direct quotes, indirect quotes, voices of inner-Others. Utterance sounds "foreign in the mouth". Ventriloquation Common turns of phrase, out of context, different style. Repetition of pattern.
5. What future is constituted? 5.1 how does the utterance make history? 5.2 How does the utterance position people? 5.3 What responses are enabled or constrained?	Change in the situation or genre of interaction. Morally loaded words, identity implications, resistance. Speech/response cut short, topic change.
6. What are the responses? 6.1 What is the response of the interlocutor? 6.2 What is the response of third parties? 6.3 What is the response of the speaker?	Possible proof of interpretation, plurality of meanings, voices of inner-Others, echoes, heterodialogue. Explicit responses to Self, hesitation, rephrasing, autodialogue, dialogical knots, echoes, I-positions.

\* Adapted from (Gillespie & Cornish, 2015).

Figure 2 below presents that integrated conceptual model that was applied to the synthesised analysis of data:



## PSYCHOLOGICAL ASSESSMENT AS A DIALOGICAL PROCESS

Ethics codes and standards for test use and administration

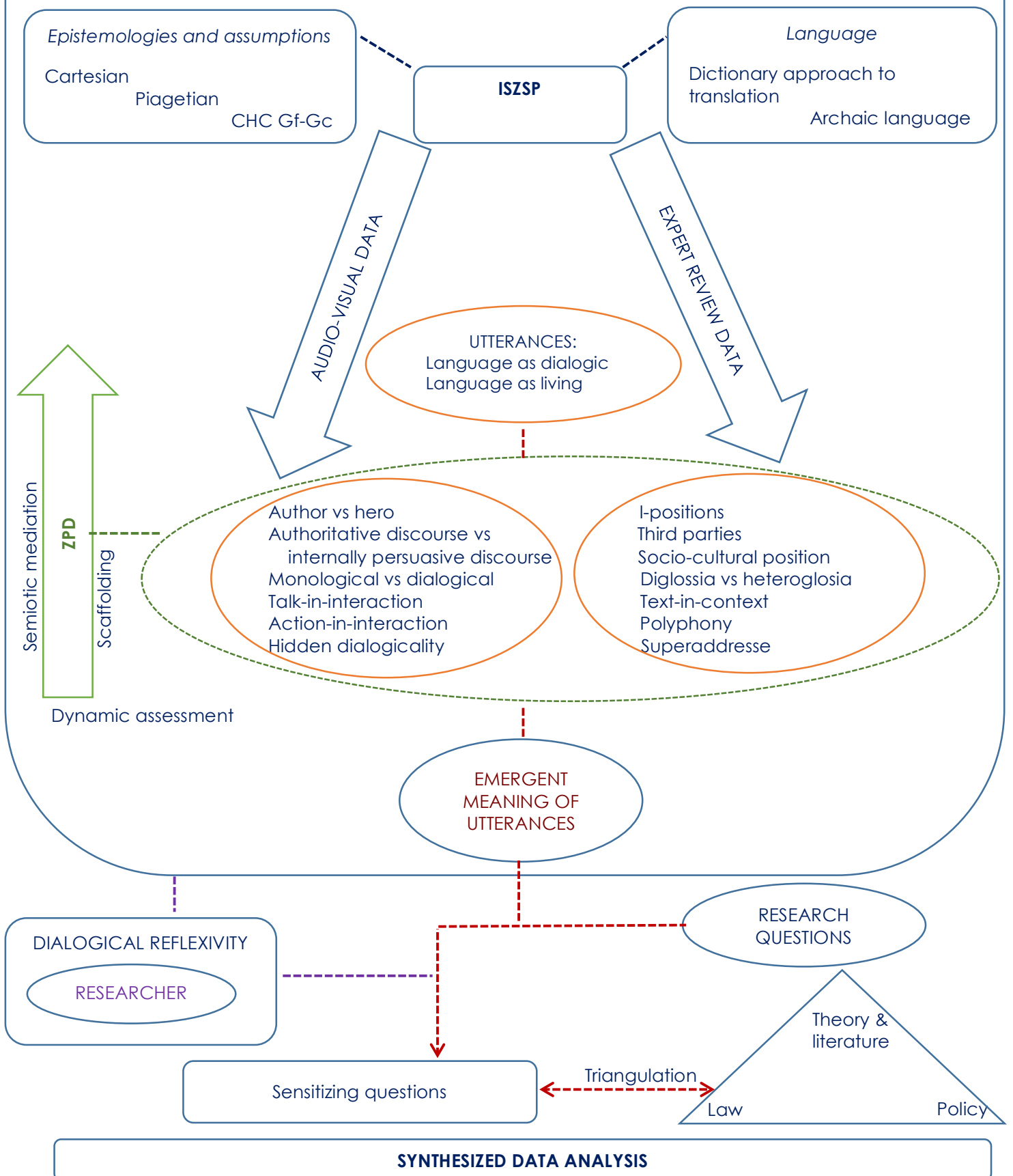


Figure 2. Integrated conceptual model of data analysis

This process involved sorting significant utterances and tracing connections between issues and concepts (Elo & Kyngäs, 2007; Kelly, 2006; Maxwell, 2004; McTavish & Pirro, 1990; Pope, Mays, & Popay, 2007; Shenton, 2004; Skinner, 2007). I also traced shades of third parties and voices of inner-others (ventriloquations) within the broader social sphere, history, and the perspective of future interactions (Aveling et al., 2014; Gillespie & Cornish, 2015; Hermans, 2008; Linell, 2009). This was more so when the participants used utterances in the ISZSP that had distinct social origins beyond themselves. This required me to triangulate the participants' data and cross-reference the data with historical, legislative and policy knowledge in relation to the profession of psychology, as well as knowledge from the theoretical and empirical literature on the psychological assessment of culturally and linguistically diverse children.

To be consistent with the theoretical assumptions of dialogism, I did not break down the utterances into finalized codes, which would have fixed individual participants into a pre-existing set of categories of the researcher or those of established theoretical frameworks (Duffield & Franks, 2001; Paliadelis & Cruickshank, 2008). Instead, I identified issues and multi-layered utterances from the themes that respond to the research questions; and analysed both their content and broader contexts in the data (Duffield & Franks, 2001; Hsieh & Shannon, 2005; Paliadelis & Cruickshank, 2008; Skinner, 2007).

## **5.8 Ethical Considerations**

Ethical responsibility is essential at all stages of the research process to protect the rights and welfare of the research participants (Kimmel, 1988; Kruger, Ndebele, & Horn, 2014; Wassenaar, 2006). Ethical considerations are vital features of any research process as they arise and inform research at different stages throughout the process (Bryman, 2008; Edwards & Mauthner, 2002). The following principles and ethical issues were considered.

### **5.8.1 Ethical clearance and permission from relevant authorities.**

Ethical approval was sought from and granted by the Humanities and Social Sciences Research Ethics Committee of the University of KwaZulu-Natal (protocol reference number: HSS/1051/014D) (Appendix 5). Permission to qualitatively evaluate the ISZSP was granted by Mindmuzik test distributors on behalf of the Human Sciences Research Council (HSRC) (Appendix 16). Permission was also granted by the KZN DoE (Appendix 6) to access and recruit learners in school premises; access was also sought from school principals in selected Pietermaritzburg schools (Appendix 7). The processes of sampling and collecting

data began once ethical clearance and permission from all relevant authorities had been granted.

### **5.8.2 Gaining entry: The impact of gatekeepers.**

It has been acknowledged that a *dual identity* of a researcher and a member of the community being studied can shape the research process (Brayboy, 2000; Bryman, 2008; David, Edwards, & Alldred, 2001; Heath, Charles, Crow, & Wiles, 2007; Illingworth, 2001; Motzafi-Haller, 1997; Villenas, 1996, 2000). At the early stages of this study, I had not fully expected how challenging it might be to gain access to participants in schools. Bryman (2008) and Illingworth (2001) have argued that gatekeepers may attempt to influence the research and its outcomes by checking the types of questions that are being asked of participants. In my study, this was not the case. I became aware of how my dual identity as a researcher and an educational psychologist affected my study when some of the school gatekeepers confused my role and saw me as a psychologist instead of a researcher.

For instance, some of the school principals and educators assumed that I had come to recruit “struggling” learners in my role as an educational psychologist. They expressed relief that someone had finally come to assess some of the learners in their school. They mentioned that they had submitted requests to the DoE, and have waited for a long time for them to meet their needs. For this reason, some gatekeepers selected classes for me to recruit from, with learners who had been identified as experiencing barriers to learning (especially related to academic achievement), and in need of psycho-educational assessment. I became concerned about this because it had potential to contaminate the sample, as experiencing barriers to learning was not a criterion for inclusion. Therefore, I explained again the purpose of my study, and how participants ought to be selected. Once this was understood, I was given the opportunity to recruit the participants in the manner that the study had originally intended.

### **5.8.3 Informed consent.**

Respect for persons was adhered to in this study by a) providing participants with the appropriate information about the study and the research processes; b) taking into account participants' competence and understanding; c) ensuring the voluntariness in participating and freedom of participants to decline or withdraw after the study had started; and d) the formalization of the consent in writing (Bryman, 2008; Graham, Powell, & Taylor, 2015; Graham, Powell, Taylor, Anderson, & Fitzgerald, 2013; Kruger, Ndebele, & Horn, 2014; Leedy & Omrod, 2005; Wassenaar, 2006).

The current study was complex; it involved many participants at various levels, i.e., children between the ages of 9 to 19 years (with parental approval for those younger than 18 years), and psychologists in independent practice. Thus, maintaining respect for persons was essential. Written informed consent was sought after a thorough discussion with participants about the research, which included informing them about the intended research purpose, research design, risks and benefits; and assuring them of the voluntary nature of participation, freedom to refuse or withdraw without penalties, the reporting of the data and their expected role in it (Chiumento, Khan, Rahman, & Frith, 2016; Heath, Charles et al., 2007; Graham et al., 2013; Parsons, Sherwood, & Abbott, 2016; Wassenaar, 2006; Wasunna, Tegli, & Ndebele, 2014). Participating psychologists signed the written consent forms to indicate their agreement to evaluate the ISZSP and produce written expert review reports (Appendices 1 & 2).

Parents were supplied with the information letter and were asked to give written consent for their children to participate in the study. Graham et al. (2013) noted that there are various reasons that can lead to parents giving written consent for their children to participate in research. Mostly, parents give consent when they fully understand the purpose of the research, and when they believe that their children will benefit (Graham et al., 2013). The parents' decision whether or not to give consent for their children to participate in the study depended on their understanding of the research purpose, confidentiality, risks and benefits involved, and the voluntary nature of participation (Fernandez, Kodish, & Wrijer, 2003; Graham et al., 2013; Kruger et al., 2014).

For the current study, this could be true. I acknowledge that some parents might have agreed that their children could participate as they may have thought that this was a requirement or a normal activity of the school, and therefore did not refuse participation. This was not an intention of this study, which is why I ensured that the information letter and consent forms were written clearly, in detail and in both isiZulu and English. Providing detailed information to parents was aimed to ensure that parents did not feel coerced to allow their children to participate in my study (Chiumento et al., 2016; David et al., 2001; Graham et al., 2013; Graham et al., 2015; Heath, Charles et al., 2007; Parsons et al., 2016; Spriggs, 2010; Wasunna et al., 2014).

Parental consent was also sought for the audio-visual recording of the assessment process. Heath et al. (2010) maintained that obtaining parental written consent to undertake video recording for research with children has been found to be generally unproblematic,

provided that children's identity would be kept confidential. However, when considering the ethical use of video with children in research, one cannot ignore the issue of identification/de-identification, as identification of participants in video data may pose a threat to respect for persons if accessed by the wrong individuals. There are various techniques and software programmes that can be employed to alter, blur or pixellate faces in video data (Chiumento et al., 2016; Flewitt, 2006; Graham et al., 2013; Graham et al., 2015; Heath et al., 2010; Heath, Charles et al., 2007; Parsons et al., 2016; Wasunna et al., 2014). It must be noted that the video footage for this study could not provide anonymity or confidentiality for any of the participants. It was essential not to alter the images for the analysis of non-verbal behaviour, including facial expressions. This was explained in the information letter, and I assured the parents and the participants that I would ensure limited access to the audio-visual data, and maintain confidentiality.

The information letter also contained details that explained to the parents that they would be offered individualized feedback on the assessment results for their children (Appendices 8 & 9). Offering individualized feedback to parents is imperative when psychological assessment has been conducted for research purposes. This is because researchers are obliged to "treat each of their participants primarily as persons or as an end in themselves, rather than as a means to an end" (Lefavre et al., 2007, p. 245). Individualized feedback was given to parents in written form for all 12 learners on their performance on the ISZSP (Lefavre et al., 2007). Owing to the selection of only the verbal scales of the ISZSP in this study, I referred four learners who presented with clinical difficulties to the Child and Family Centre for a full psycho-educational assessment (Appendix 17) (HPCSA, 2006).

I noted that with all the informed consent forms that I received back, both parents and learners had signed to agree to partake in the study. A number of consent forms were not returned, which I perceived as the parents' way of passively declining permission for their children to participate. This reflected parental awareness of their right to dissent and refuse participation on behalf of their children (Graham et al., 2013). This called for me to respect those parents' knowledge about their own situation and decisions, as well as their ability to assess potential benefits and/or risks associated with their children's participation in my study (Graham et al., 2013; Kruger et al., 2014; Spriggs, 2010).

#### **5.8.4 Confidentiality.**

Confidentiality refers to the instance when the researcher can identify a participant's responses, but the participant is assured that they will not be revealed publicly. It also

refers to not revealing participants' identities or linking comments with their names (Aubrey, David, Godfrey, & Thompson, 2002; Rubin & Rubin, 2005). Confidentiality entails keeping data in a safe place, or destroying evidence that associates information in the data with specific individuals (Rubin & Rubin, 2005). The participant psychologists were assured that confidentiality would be maintained throughout the duration of this study and beyond. Their names are not mentioned in this doctoral thesis, nor will their particulars be revealed in future publications. Pseudonyms were assigned for each of their expert review reports. Both parents and the participant learners were assured that their names and identifying information would be kept confidential, and not revealed in this thesis and papers for publication. They were informed that to protect their identity pseudonyms would be used in the transcripts. They were assured that access to the video recordings of the assessment sessions would be safeguarded and strictly monitored.

As mentioned above, for the purposes of this study, the video images of participants were not obscured as participants' utterances in the form of non-verbal interactions – in addition to verbal interactions – were crucial to the analysis of data (Flewitt, 2006; Heath et al., 2010). Therefore, I took measures to ensure limited access to all records in order to safeguard against physical and electronic breaches of confidentiality of the information. The intern educational psychologist who administered the ISZSP, and the transcriber who transcribed the audio-visual data, signed contracts and confidentiality pledges to ensure that they would maintain the confidentiality and anonymity of all the learners who participated in the study (Appendices 14 & 15).

The storage of all forms of data for this study was maintained in a way that is designed to protect their security, integrity, confidentiality, and appropriate access, as well as their compliance with applicable legal and ethical requirements (HPCSA, 2006). All physical documents were filed and locked in a cabinet for protection from unauthorized access, damage, loss and destruction. Audio-visual data were kept electronically in encrypted files with secure passwords, which were accessible only to me. Backup copies of all data were made and stored separately, under the same precautionary measures. All data, together with all paper documentation (i.e., consent forms), will be destroyed after five years.

#### **5.8.5 Autonomy, non-maleficence and beneficence.**

In planning and implementing the study, I was guided by the principles of autonomy, non-maleficence and beneficence (Graham et al., 2015; Spriggs, 2010; Wassenaar, 2006). The principle of autonomy placed responsibility upon me to ensure that participation in the

study was voluntary and informed, and that the participants were free to withdraw from the study at any time (Chiumento et al., 2016; David et al., 2001; Parsons et al., 2016; Wassenaar, 2006). None of the participants withdrew their participation in this study.

Non-maleficence refers to the researcher's obligation to do no harm to the participants or any other person involved in the research process (Birch, Miller, Mauthner, & Jessop, 2002; Graham et al., 2015; Wassenaar, 2006). The current study posed no foreseeable risks or physical, emotional or psychological harm to the participants. However, I do acknowledge that all forms of psychological assessment bring some level of emotional risk to the testee. These are risks such as embarrassment and loss of self-esteem when the testee fails to complete the required tasks, and confirmation that one is not good enough, as they may have been told before (Ferrett, 2011; Lacroix, 2008; Lefaivre et al., 2007). To avoid this, the intern psychologist constantly checked the well-being of the participants during the administration of the ISZSP.

In conjunction with non-maleficence, to ensure beneficence, the researcher has to consider the relative risks of the study against any benefits that it might essentially bring to the participants and/or society through knowledge gained (Graham et al., 2013; Kruger et al., 2014; Spriggs, 2010; Wassenaar, 2006). To adhere to the principle of beneficence, I designed the study in a manner that would be of benefit to, not only the participants, but also the society at large (Aubrey, David, Godfrey, & Thompson, 2000; Wassenaar, 2006). The immediate benefit to the learners who participated in the study was knowing their intellectual strengths and areas that need improvement. This feedback was given to them during the course of this study. Another benefit of participating in this study was the participants' contribution to the envisaged revised and improved ISZSP, leading to future contextually, culturally, and linguistically fair intellectual assessment for those learners whose mother tongue is isiZulu.

The participating psychologists were afforded the opportunity to reflect on and evaluate the current assessment tools and practices in the intellectual assessment of isiZulu-speaking learners. Another benefit is that the exploration of the current research topic could be used to facilitate the revision (and possible development) of contextually relevant psychological assessment tools for assessing the intellectual functioning of CLD learners in addition to the ISZSP. In turn, the assessment process would be more ethical in the future, with assessment tools correctly assessing what they purport to measure. In that way, children would not be misdiagnosed and unfairly placed in classes where they would

be deprived of age-appropriate schooling, which would stunt their intellectual growth and development.

## **5.9 Establishing Trustworthiness**

Trustworthiness refers to establishing validity, reliability and generalizability of qualitative research. The concepts of reliability, validity and generalizability are embedded in the positivist scientific methods of research. Certain assumptions of scientific research have remained unsound to many who engage in qualitative research within the humanities (Lewis & Ritchie, 2003). Dialogic research is embedded in social constructionist accounts of reality and lived experiences. Hence, the validity of findings is relative and negotiated during the research process (Cassell & Symon, 2011). To avoid the discord between paradigms and methods, researchers have argued that in establishing trustworthiness, reliability, validity and generalizability should be replaced by credibility, dependability and transferability (Banister et al., 2011; Berg, 2007; Bryman, 2008; Cassell & Symon, 2011; Elliot, R., & Timulak, 2005; Lewis & Ritchie, 2003; Lincoln & Guba, 1985; Terre Blanche et al., 2009).

To ensure trustworthiness, I documented all the details from the time the study began to the time when it was completed. I have provided a detailed discussion on how the data collection tools were developed and translated, and how data were collected and processed (Burns, 2010; Freebody, 2003; O'Toole, Stinson, & Moore, 2009). I have also provided a detailed account of how data were transcribed and analysed. I have sought to accurately represent the experiences of the study participants, and have given comprehensive evidence from the data (Golafshani, 2003; Kvale & Brinkmann, 2009; Patton, 2002; Robson, 2002; Rothwell, 2012; Shenton, 2004; Stenbacka, 2001). A detailed discussion of reflexive dialogicality and my positionality has also contributed to addressing researcher bias and securing trustworthiness (Alvesson & Skoldberg, 2000; Berger, 2013; McLay, 2014; Motta et al., 2013; Scott, 1997). Moreover, I have used four criteria to measure trustworthiness: credibility, dependability, and transferability (Shenton, 2004), which are discussed below:

### **5.9.1 Credibility.**

Validity is defined as how the data accurately represent what is being measured (Terre Blanche et al., 2009). The credibility measures include establishing that the findings of qualitative research are credible or believable from the perspective of the participants in the research. To maximize credibility, I have provided a detailed description of the context



of my study. I have also confirmed with my supervisor that all the research questions and techniques form a cohesive unit, in which the methods for obtaining answers to the questions, and the means for assuring the credibility of the potential answers are clearly conceptualized and linked to the research questions (Maxwell, 2004; Shenton, 2004).

Additionally, I checked for researcher bias through dialogical reflexivity to ensure the rigour of the study (as discussed in section 4.6.3.1 above). I also used method triangulation and respondent validation to verify the credibility of the findings. I compared data from the data collection methods (e.g., expert review reports, audio-visual data), and took the research findings from the expert review data back to the participants to see if the connotation or interpretation assigned would be confirmed by those who contributed to it in the first place (Kvale & Brinkmann, 2009; Lewis & Ritchie, 2003; Lincoln & Guba, 1985; Shenton, 2004). For the latter, only four participants were available for this process.

### **5.9.2 Dependability.**

Dependability is equivalent to reliability, i.e., the consistency of the findings under similar circumstances and the extent to which research findings can be replicated (Lewis & Ritchie, 2003; Terre Blanche et al., 2009). As mentioned above, this study is embedded in the dialogic, social constructionist paradigm. Reliability in the traditional, psychometric sense would be problematic as this paradigm argues that there is no single reality to be captured. Rather, knowledge is socially constructed and context sensitive (Golafshani, 2003; Lewis & Ritchie, 2003).

Therefore, to account for dependability, I certified that the research questions were clear and logical in relation to the study's research design, and they maintained focus on a Bakhtinian analysis of the cultural and linguistic appropriateness of the ISZSP (Rothwell, 2012; Shenton, 2004). I have attempted to present this thesis in a manner that would allow the reader to comprehend the meaning that I ascribed to the data (Patton, 2002). I followed appropriate qualitative and dialogic investigative procedures, which suited the contextual nature of the study. This comprised the recruitment of participants, collecting data through qualitative methods, transcribing, analysing and reporting the data (Burns, 2010). This systematic process confirms the dependability of this study.

### **5.9.3 Transferability.**

The findings of this study may not be generalizable to the wider population in a quantitative sense. It is therefore important to consider transferability of the findings (Lewis

& Ritchie, 2003; Shenton, 2004). Transferability is concerned about how a study might contribute to an understanding of similar issues in other settings, and how the study's findings might be transferable to other contexts (Kelly, 2006; Maxwell, 2004; Patton, 2002; Schram, 2006; Terre Blance et al., 2009).

To account for transferability, I provided a detailed description of the sample population that participated in this study as well as the key issues regarding the research problem (Maxwell, 2004; Kelly, 2006). In particular, this study was focused on the cultural and linguistic appropriateness of the ISZSP when used with isiZulu speaking children. The sample was drawn from selected areas of the province of KwaZulu-Natal, and comprised of psychologists and isiZulu-speaking children. Therefore, transferability is possible to the extent that a similar context is selected for study.

### **5.10 Conclusion**

This chapter presented the operationalization of Bakhtinian concepts in this study, within a social constructionist paradigm. It provided a justification for this paradigm and the choice for a dialogical approach to the evaluation of the ISZSP. This chapter also discussed the research design and the methods that were employed throughout the study. Additionally, the chapter presented details pertaining to ethical issues that were considered and addressed during the study, and mentioned issues regarding establishing trustworthiness.

In the chapters that follow, I present the findings of this study, in line with the research questions and the viewpoints expressed by participants through expert review reports and audio-visual recordings.

## CHAPTER 6

### FINDINGS AND DISCUSSION: AN ANTHOLOGY OF VOICES, PART I

*Words can enter our speech from others' individual utterances, thereby retaining to a greater or lesser degree the tones and echoes of individual utterances... Thus, the expressiveness of individual words...is an echo of another's individual expression, which makes the word, as it were, representative of another's whole utterance from a particular evaluative position (Bakhtin, 1986, pp. 88-89).*

#### 6.1 Introduction

This chapter presents and discusses findings obtained from written expert review reports and the video recordings of the assessment of isiZulu-speaking children using the Verbal Scale of the ISZSP. It presents the main findings extracted from the utterances that respond to the research questions. The findings indicate that the current translation of the ISZSP poses many challenges. Amongst these is the test's non-responsiveness to contextual, cultural and linguistic factors that contribute to the development of intellectual functioning. Moreover, some of the test instructions, scoring criteria and rubrics are confusing, which at times leads psychologists to deviate from the standardized administration of the test. These challenges seem to outweigh the benefits of having the ISZSP as the only tool in isiZulu for assessing the FSIQ in children.

In presenting the findings, the extracts from the written reports and video recordings are presented in the original language/s in which the participants expressed them. These were translated into English; texts were italicized where the participants originally expressed their views in English. The isiZulu words that were not translated into English are underlined in order to demonstrate the participants' points of view. The transcription symbols used in the video extracts are described in Chapter 5, Table 3.

The first research question explored the psychologists' experiences and views regarding the cultural and linguistic appropriateness of the ISZSP for the intellectual assessment of isiZulu-speaking learners. Participating psychologists were unanimous in the view that the test uses obsolete words that have not kept up to date with generational changes in society, technological developments, and regional dialects of isiZulu. The findings also indicate that while the ISZSP is considered to be useful to assess isiZulu-speaking children, its usefulness is outweighed by the following challenges: a) the psychologists' detachment from the ethical obligation to develop and adapt intelligence tests; b) validity

considerations; c) the confusing instructions; and d) the inconsistency in the rubrics and scoring criteria.

## **6.2 Psychologists' Detachment from the Ethical Obligation to Develop and Adapt Intelligence Tests**

Participating psychologists were in agreement that the ISZSP is a much needed and helpful tool to assess the intellectual functioning of isiZulu-speaking learners. Although participants strive to abide by the code of ethics, they seem to detach themselves from the obligation and responsibility to ensure that the intelligence tests they select and use are appropriate.

In the following extract, the utterance "we have to" reflects the participant's self-position in relation to fellow psychologists. The extract illustrates the tension between the voice of psychologists as practitioners and the requirements of their profession – i.e., to ensure that clients are not denied psychological services (HPCSA, 2006) – and the scarcity of resources to fulfil those requirements.

ERR Extract 1:

Ngizothi nje ilungile yona. Akufani nokungabi nalutho, noma izinto ezithile zingalungile kuyo, kodwa sibonga ukuthi ikhona ngoba ayikho enye i-test esinayo to assess i-IQ yezingane ezineminyaka ewu 9 to 19 years ngesiZulu. Siyayisebenzisa ngoba we have to assess *Black children*, otherwise ngeke basizakale ngoba sithi silinde someone to develop a new test ezoba relevant for the South African context... Ukutolikwa kwe ISZSP ngikuthola kungafanelekile kuma-subtest amaningi, ikakhulukazi for the intended population. Empeleni, angazi ukuthi yatolikwa ubani, nokuthi kanjani. Uma uyithenga, uthola only two manuals, Part II and Part III, u-Part I akekho. Uma ngibheka imihlahlandlela nemibandela ye ITC osinike yona, ngingasho ngithi kuyangabazeka ukuthi yalandelwa ngesikhathi kutolikwa i-ISZSP. Njengokuthi nje, as a psychologist eke isebenzise lelithuluzi, ngingeze ngasho nakwabanye ukuthi yatolikwa kanjani le-test, kuphi nendawo, and who were the norm group, sampled from which areas, ngoba ayikho imibhalo emayelana nokutolikwa nezinguquko ezenziwa, futhi abukho ubufakazi be test item equivalence. Lokhu kusho ukuthi noma silisebenzisa, siyazi ukuthi kuningi esingalindele ukuthi ohlolwayo akuqonde. Ngamanye amazwi uma sikhuluma umntwana, vesane sisuke sazi ukuthi kunamaphuzu angeke awathole ngenxa yokungazi isiko ekuthathelwe kulona ithuluzi lokuhlolwa.

[I would say it is fine. It is better than having nothing, even though there are things that are not right in it, but we are thankful that it exists because we do not have any

other test to assess the IQ of children aged 9 to 19 years in isiZulu. We are using it because we have to assess Black children, otherwise they will not get help if we say we are waiting for someone to develop a new test that would be relevant for the South African context... I find the translation of the ISZSP to be inappropriate in a lot of subtests, especially for the intended population. In fact, I do not know who translated it, and how. When you buy it, you get only two manuals, Part II and Part III; there is no Part I. Looking at the guidelines and conditions of the ITC that you provided us with, I can say that it is uncertain that they were followed when the ISZSP was translated. For instance, as a psychologist that uses this tool, I am unable to tell others how this test was translated, where, and who were the norm group, sampled from which areas, because there is no documentation regarding the translation and changes that were made, and there is no evidence of test item equivalence. This means that when we use the ISZSP, we know that there is a lot that we do not expect the assessed child to understand. In other words, when we assess a child, we know indeed that there are points they will not get because of not knowing the culture from which this assessment tool was developed.]

It could be argued, based on the extract above, that psychologists themselves perpetuate the use of obsolete and inappropriate psychological tests. The utterances: *"it is better than having nothing...we are thankful that it exists because we do not have any other test ..."* show the participant's detached attitude towards the ethical responsibility to ensure that the tests that she uses are appropriate for the target population. In this she co-opts fellow psychologists who also use the test (through the use of the pronoun, "we") to the same position, thus showing that she is not alone in this position. She justifies this by presenting a dialogical knot (or tension) (*"we have to assess Black children, otherwise they will not get help"*) and alludes to the use of the ISZSP by default as there is currently no other option available.

The participant quoted above adopts various self-positions such as I-as-assessor, I-as-compromised, I-as-understanding and we-as-psychologists, in order to get her views across. As James (1890) and Hermans (2001b) accentuated, each I-position is primarily constructed in a particular context and set of social relations. Subsequently, the self moves between various voices and contexts – bringing the concerns of one context into another – which results in the self having multiple I-positions. The shifts of self-positions seen in ERR Extract 1 from "I" to "we", and from "we" to "I", indicate individualized and collective voices. This signals changes in how the participant experiences herself and her positioning. She appeals to an imagined audience of psychologists with super addressees (such as the HPCSA and the ITC) and co-opts them to stand in her position. This shift from the

collective voice to an individualized voice appears to depend on what is being articulated. For example, the participant moves from “I” to “we” to describe a difficult position where psychologists have no choice but to use the ISZSP in its current form (“I would say it is fine...even though there are things that are not right in it, but we are thankful that it exists... we have to assess Black children”). She subsequently shifts her position from “we” to “I” when she takes ownership of perspective and feels safe to critique the translation of the ISZSP. This is shown in these utterances: “In fact, I do not know who translated it, and how... as a psychologist that uses this tool, I am unable to tell others how this test was translated...”. Later, she moves back to the “we” position when she describes unethical practice regarding test selection, e.g., “This means that when we use the ISZSP, we know that there is a lot that we do not expect the assessed child to understand.”

The participant appeals to structures (audiences) other than herself (e.g. HPCSA) to address the ethical concern encountered by her and fellow psychologists using the ISZSP. She precludes the possibility of fellow practitioners contributing towards the development of new and contextually relevant intelligence tests for isiZulu-speaking learners. In so doing she detaches herself and others from this ethical responsibility. This is contrary to the understanding that the ultimate responsibility to ensure the reliability and validity of psychological tests, rests with the test user (APA, 2010; ITC, 2010, 2013).

All participating psychologists indicated that they had never seen or had access to documentation that explains the process that was taken to translate the ISZSP (i.e., Part I Manual). They indicated that they do not know how the appropriateness of the test was ensured for use with isiZulu-speaking children. Hence the question about how they are expected to use the test appropriately when they are aware, before beginning the assessment, that children might struggle and not understand the language of the test. The participants are aware that selecting and using a translated intelligence test, not knowing how it was adapted, has serious professional and ethical implications (HPCSA, 2006; ITC, 2010, 2013). Nevertheless, they do not seem to acknowledge that it is their responsibility as psychologists, in terms of the codes of ethics as well as the standards for practice as test users, to ensure that they are knowledgeable about tests they use.

The participants' detachment deviates from the roles and responsibilities of psychologists, as stipulated by the national and international standards of practice (ITC, 2010, 2013). Regardless of the mandatory responsibility on test developers, the ultimate obligation for appropriate test use and interpretation lies primarily with the test user (APA, 2010; ITC, 2010, 2013). Therefore, the onus is on psychologists to contribute to the development and

adaptation of psychological tests, and to continuously evaluate them for contextual and ecological validity (APA, 2010; Bartram, 2001; Hambleton, 1994, 2001; HPCSA, 2006; ITC, 2010, 2013; Oakland, 2005; Parker et al., 2007; Radebe 2010; Venter 2000). If this mindset is not engaged and if it does not change, the assessment of intellectual functioning using the ISZSP will continue to compromise the placement of isiZulu-speaking children.

### 6.3 Psychologists' Perceived Personal Incompetence in Using the ISZSP

Participants reported instances where they experienced linguistic challenges when administering the ISZSP for the first few times. This resulted in discomfort and uncertainty on their part, which in turn compromised test administration. This is illustrated by the extract below:

ERR Extract 2:

Ngisaqala ukuyi *administer* le test kwakubanzima nakimi ukusho lamagama kungenze ngibe *uncomfortable* uma ingane isingibuza ngawo ngibe nami ngingawaqondi ngokuphelele futhi ngingekho *sure* ukuthi *are they the correct translation*. Amanye amagama kubenzima ukuwabeka ngendlela ingane ezowezwa ngayo, ikakhulu izingane ezifunda ezikoleni ezisemadolobheni lapho ulimi lokufundisa nokufunda luyisiNgesi. E.g., Ummango ku Vocabulary, izingane zivele zicinge umango isithelo, *that is, the mango fruit*, zithi “ay, angiwuboni”. Kunzima nokubuza imibuzo le ezodinga usho *i-number* ngesiZulu, uthole ukuthi manje ingane ayiliqondi igama ibuze kimi ukuthi “*how many are ezine?*” Uma sengimubekela ngendlela ayijwayele ngithi *four* sengiphula imithetho ye test.

[When I started to *administer* this test it was difficult for me to say these words and it made me *uncomfortable* when a child asks about them when I did not fully understand them and I was not *sure* if *are they the correct translation*. It was hard to put some words in a manner in which the child would understand them, especially children that learn in schools in urban areas where the language of teaching and learning is English. E.g., Ummango in Vocabulary, children just look for umango isithelo, *that is, the mango fruit*, and say “ay, angiwuboni” (“*no, I cannot see it*”). It is also difficult to ask the questions that require you to say the *number* in isiZulu, you find that now the child does not understand the word and ask me “*how many are ezine?*” If I put it in a manner that he or she is used to and say *four*, I am breaking the rules of the test.]

This finding talks to the competency of the psychologist administering the test, which is one of the ethical considerations. Psychologists are required to familiarize themselves with the tool well in advance and be competent in its use (HPCSA, 2006; ITC, 2013). The HPCSA

(2006) emphasizes that high standards of professional competence are required to ensure the protection of clients from unprofessional practices that do not meet international and national best practice standards. The participant's use of the word: "*kunzima*"<sup>7</sup> metaphorically describes the difficulty she experienced in using some of the Zulu words in the ISZSP. The direct English translation of the word *kunzima* is: *it is heavy*. Therefore, the difficulty is expressed as heaviness. The use of this word in this context symbolizes the emotional bearing this experience has on the psychologist as it makes her question her competence to administer the test ethically.

Despite being members of the same linguistic community, it is evident that psychologists' clients' backgrounds differ at times. Moreover, the fact that isiZulu is a highly tonal language (Downing, 2001), making the pronunciation of *ummango* and *umango* almost sound similar to an untrained ear (such as that of a child that learns at an English medium school), contributes to this gap. The participant above demonstrates this by referring to the distinction between dialects in urban and rural areas, where the spoken isiZulu varies considerably (Magagula, 2009). Regional dialects have been found to be an important consideration for the assessment of bilingual children (Mdlalo, 2013).

From a Bakhtinian perspective, this demonstrates power relations in terms of which language is considered supreme or best to assess the intelligence of isiZulu-speaking learners. Dialogism emphasizes the central contribution of the living language, i.e., language-in-use (Bakhtin, 1981, 1986; Shands & Mikrut, 2014). The ISZSP esteems its historical, archaic language that is seldom in use, and renders the currently spoken social languages of both the psychologist and the child subordinate to it. This puts psychologists in a position where they go against the authoritative discourse of the test that is governed by Western theories of intelligence, when they use words that they and the testees are familiar with. It is vital that dialectal variations do not cause discord during psychological assessment. Knowledge generation and meaning-making are embedded in historical, social and cultural practices that emphasize the dialectal traditions that support and enhance the development of intelligence (Iversen et al., 2005; Levine, 1997; Parton, 2003; Vygotsky, 1986). Currently, the ISZSP appears to create linguistic discord.

#### **6.4 The Construction of the ISZSP: Threats to Validity.**

In using the ISZSP, participants experienced challenges emanating from cultural variations

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<sup>7</sup> In most reports, the participants used the word "*kunzima*" and its synonym *kuyasinda*. The participants repeated the word *kunzima* often to describe their situation and context of using the ISZSP in its current form.



in the meaning of intelligence, and the test items. The following section turns to these concerns, which border on the construct as well as content and face validity of the test.

#### **6.4.1 Cultural variations in the meaning of intelligence.**

The expert review reports indicate that in Zulu culture, intelligence is not limited to the traditional abstract notions that are usually assessed by means of standardized tests. Rather, intelligence incorporates a broad spectrum of behaviours and personal dispositions, amongst which are social responsibility, showing respect, carrying out domestic chores, welcoming guests into the home, caring for siblings, caring for livestock, and so forth. Participants are unanimous in the view that the ISZSP does not assess this social dimension of intelligence, which is highly valued in this community. Instead, the test is infused with abstract and individualized notions of intelligence that are prized in Western cultures. From a Bakhtinian perspective, this raises critical questions about voice, such as: Whose meanings are embedded in the tools that are used as markers of intelligence and hence, indicators of progress and social advancement? Whose meanings have been excluded and to what effect? The following section presents these critical validity issues, as experienced by the participating psychologist.

ERR Extract 3:

Kithina maZulu, ukukwazi ukwamukela izimo, ufunde imisebenzi yasekhaya, ufunde amasiko asekhaya, konke lokho kuyigugu. Kepha uma umntwana ekwazi ukwenza izibalo, kodwa engabingeleli abantu abadala, akusilo igugu, ngakho akakwazi ukuthi angathathwa njengomuntu okhaliphile. *On the other hand*, uma umntwana engathola u 100% kule ISZSP, kodwa engakwazi ukwenza lezizinto engiziphawulile futhi angabi nezinhloso zokusiza umndeni wakubo kanye nomphakathi, uthatheka njengomuntu ongenakho ukuhlakanipha.

[For us Zulus, the ability to accept ((to adjust one's actions according to the demands of)) situations, to learn domestic chores, to learn about the culture of your home, all that is valuable. But if a child can do mathematics, but [does] not greet the elderly, it is not valuable, therefore he or she cannot be perceived as someone who is intelligent. *On the other hand*, if a child can get 100% in this ISZSP, but cannot do all these things that I have mentioned and not have intentions to assist his or her family and community, he or she is perceived as someone who lacks intelligence.]

This participant expressed herself through a speech genre that has structured her experiences and points of view within her culture and community. When she states “for us Zulus”, she employs a collective voice and makes reference to tenets that are treasured

by Zulus as valuable in their culture, which author and shape the child. The contrast of African/Zulu values with Western values regarding what constitutes intelligence cannot be understood in isolation from the context-specific cultural knowledge of various conceptions of intelligence. It cannot be understood separately from the impact of the dominance of one value system over another in diverse contexts (Bakhtin, 1986; Renfrew, 2006; Rojo, 2009; White, 2009). From her viewpoint, contextual intelligence (which comprises social and cultural factors), the ability to assess one's situations and then vary one's actions accordingly to the demands of the situation, is more valuable to Zulus.

As highlighted in Chapter 2, African indigenous conceptions of intelligence are broader than Western conceptions of the construct, on which IQ tests are embedded. From an African indigenous perspective, intellectual ability and social responsibility are knotted (Cocodia, 2014). Intelligence centres mainly around comprehending instructions, practical skills and thinking, humility, respect, obedience, cooperativeness, acceptable social behaviour (among others) (Cocodia, 2014; Dasen, 1984; Grigorenko et al., 2001; Lima et al., 2002; Putnam & Kilbride, 1980; Serpell, 1996; Sternberg, 2004).

The ISZSP, the findings indicate, does not incorporate this widely established conception of intelligence. Commensurate with Western constructions of intelligence on which it is premised, it was designed to measure individual biological mental abilities as they are expressed by means of success with school-related activities (Beaujean, 2015; Cocodia, 2014; Mokoena, 2013; Valencia & Suzuki, 2001). This means that the construct that is assessed by the ISZSP does not carry the same meaning of intelligence, as understood by the Zulu population under study. Therefore, there is disharmony between what the ISZSP measures and the broad Zulu constructions of intelligence. The exclusion of Zulu meanings of intelligence from the ISZSP means that the test falls short of construct validity. In turn this means that assessment of isiZulu-speaking learners by means of this tool, cannot be fair (ITC, 2013).

#### **6.4.1.1 Communication practices during assessment.**

Linked to African conceptions of intelligence is the finding regarding the relationship between the psychologist and the testee being guided by a specific cultural code. This code governs the mode of communication between an elder or a person in a position of power and the younger person (Carter et al., 2005; Greenfield, 1997; Nerlove & Snipper, 1981). In their expert review reports, the participants stated that children want to show respect during assessment. They would do this by speaking softly and not raise their voice because the psychologist is an elder. They do not show what some participants called

“ukuphapha”, i.e., being too forward, which is not considered a positive attribute in the Zulu culture. This was also evident in the video data where the assessor had to ask one of the learners to speak louder more than four times. This learner's voice was audible in the video during transcription, but it was very soft. The rest of the children were asked to speak louder one to two times.

#### Video Extract 1:

##### *Two minutes into the session:*

Psyc<sup>8</sup>: Ukhulumele phezulu, yezwa? [Speak louder, do you understand?]

L10: <nods>

Psyc: Uyangizwa nami ukuthi ngikhulumela phezulu? Wen' uzokhulum' uzam' uk'dlula mina. Uyabo? [Can you hear that I am speaking aloud? You must try to be louder than me. You see?]

L10: <nods>

Psyc: 'Yabo? [You see?]

L10: Yes.

##### *Three minutes, 51 seconds into the session:*

Psyc: Ukungalaleli. [Disobedience.]<sup>9</sup>

L10: <points at card> Ukungalaleli<sup>oo</sup>. [Disobedience.]

Psyc: Ng'cel' uphakamise izwi [Please raise your voice.] Okwasendulo [Ancient.]

L01: <looks and points at card> Nakhu okwasendulo. [This is ancient.]

##### *Eleven minutes, 16 seconds into the session:*

Psyc: Kubangwa yini ukuba ibhola ligingqike?

L01: <Looks away, then straight to the opposite wall> <Rubs chin with right hand> looks at Psyc> Abadlali<sup>oo</sup>. [The players.]

Psyc: Ng'cel' uphakamise izwi [Please raise your voice.] Kubangwa yini ukuba ibhola, ibhola ligingqike? [Why can a ball roll?]

L01: Abadlali. [The players.]

##### *Twelve minutes, 15 seconds into the session:*

Psyc: Yini okumele uyenze ngaphambi kokuba unqamule umgwaqo? [What should you do before crossing a street?]

L01: Ukubuka ngakwa [It is to look] left, ubuke ngakwa [to look] right, uphinde ubuke ngakwa [and to look] left<sup>oo</sup> [again] <demonstrating with right hand> <Puts pen in his mouth>

##### *Twelve minutes, 40 seconds into the session:*

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<sup>8</sup> Psyc refers to the intern psychologist that assessed the learners who participated in this study.

<sup>9</sup> The English translations of the instructions read by Psyc are taken exactly as they are in the instruction manual of the ISZSP.

Psyc: Ng'cel' uphakamise izwi. [Please raise your voice.] Kungani ukuba amafasitela enziwe ngengilazi? [Why are windows made of glass?]

L01: Ngob' ufuna aqine<sup>oo</sup>. [Because you want them to be strong.]

Psyc: Ngokuba? [Because?]

L01: Ufuna ukuth' aqine. [You want them to be strong.]

*Thirteen minutes, 27 seconds into the session:*

Psyc: Siwadingelani amaphoyisa? [Why do we need policemen?]

L01: Ukuboph' iygebengu. [To lock the criminals up.]

Psyc: Singabe sikhon' esiny' isizathu? [Is there another reason?]

L01: (.6) No<sup>oo</sup>.

Psyc: Mmmhhh? ((Psyc did not hear the answer))

L01: No.

*Sixteen minutes, 16 seconds into the session:*

Psyc: Ukhumbul' u'kphakamisa izwi. [Remember to raise your voice.] Idingeke ngani imithetho yomgwaqo? [Why are traffic laws necessary?]

L01: (.4) Kufuneka ihlonishwe. [They have to be obeyed.]

Psyc: Ingabe sikhon' esiny' is'zathu? [Is there another reason?]

L01: No.

*Seventeen minutes, 11 seconds into the session:*

Psyc: Enziwelani amaphaki abantu emadolobheni? [Why are large pieces of ground in cities sometimes used for public parks (not car parks) and not for buildings?]

L01: Ukuze iyimoto zingahambi ndawonye<sup>oo</sup>. [So that cars do not drive in the same place.]

Psyc: Ang'kuzwa, ng'cel' ung'phindela? [I cannot hear you, please repeat that for me?]

L01: Kwenzelwa ukuthi iyimoto zingahambi ndawonye. [They are made so that cars do not drive in the same place.]

\* The learner was asked to raise his voice four more times before the completion of the assessment.

This finding illustrates that children bring with them the African ways and patterns of communication that they were taught, into the testing situation. It indicates the communicative practices and communication patterns between the tester (elder) and the testee (child) that are embedded in the Zulu culture. This is similar to other African contexts, where intelligence is conceptualized as encompassing respect for elders, obedience, politeness as well as speaking in a socially appropriate manner (Dasen, 1984; Greenfield, 1997; Grigorenko et al., 2001; Lima et al., 2002; Putnam & Kilbride, 1980; Serpell, 1996; Sternberg, 2004; Valencia & Suzuki, 2001). Moreover, Western conceptions of

intelligence testing assume that the testing environment is barren of these cultural practices, thus the ISZSP has not taken them into account, indicating the challenge of the transportability of Western cultural assumptions from the source test to the translated test (Greenfield, 1997). The participants have found this to be problematic because there are times when they think that the child is unsure about the answer, and they felt that communicating with the tester in this manner prolongs the assessment process.

#### **6.4.2 Culturally inappropriate test items of the ISZSP.**

The expert review reports indicate that some test items of the ISZSP are appropriate. However, some test items use foreign names and words that Zulu children do not understand. This renders these test items difficult for Zulu learners. This poses a threat to the validity of the assessment: the low scores obtained by the children are not a reliable and valid measure of their intellect or potential. This is examined below with reference to a sample of the subtests of the ISZSP.

##### **6.4.2.1 Items in the Comprehension subtest**

Participants reported to experience quite a number of difficulties with items in the Comprehension subtest. Item 5 of the subtest asks the following: "*Kungani ukuba abantu bakwazi ukuhamba enyangeni kodwa behluleka ukuhamba elangeni?*" [*Why can people walk on the moon but not on the sun?*] (Landman, 1988, p. 10). Some expert reviewers reported that some children have understood ukuhamba enyangeni as walking out *in* the moon, which would mean walking outside at night; and ukuhamba elangeni as walking out *in* the sun, which would mean walking outside during the day. The participants attribute this to the metaphorical expressions and the manner in which amaZulu converse daily. Additionally, expeditions to the moon are associated with foreign (American and Russian) histories; they do not form part of everyday Zulu discourse. Hence the item is removed from the everyday realities of the children that are being assessed.

ERR Extract 4:

Bophendula ke basho ukuthi "abantu bangahamba enyangeni ngoba ebusuku kupholile futhi inyanga iyakhanyisa, kanti emini, kwesinye isikhathi ilanga liyashisa kakhulu bese abantu bangasakwazi ukuhamba phandle". Mina eqinisweni angibasoli, bayiqonda kanjalo *and for me, they are not wrong!* Nami nje kwesinye isikhathi ngiyasho ezinganeni zami ngithi: "Hheyi, suka elangeni, dlala ethunzini!" noma "Musa ukuhamba elangeni." Lokhu kungahunyushwa ngokuthi: "*Hey, move away from the sun, play in the shade!*" noma "*Do not walk in the sun.*" Konke lokhu kuthi "*keep away from the sun*".

Futhi nginesiqiniseko sokuthi iyona ndlela leyo abaningi bethu express ukuhamba elangeni, kodwa nge ISZSP, umuntu angaba ne score sika zero ngalempendulo.

[They would answer and say that “people bangahamba enyangeni because at night it is cool and the moon gives light, while during the day, the sun sometimes is very hot and people cannot walk outside”. I honestly do not blame them, that is how they understand it *and for me, they are not wrong!* Even I sometimes say to my children: “Hey, suka elangeni, dlala ethunzini!” or “Musa ukuhamba elangeni.” This would translate as: “*Hey, move away from the sun, play in the shade!*” or “*Do not walk in the sun.*” All this is saying “*keep away from the sun*”. Plus I am sure that is how most of us express ukuhamba elangeni (walking “in” the sun), but with the ISZSP, one would have a score of a zero for this answer.]

The participant above challenges the authoritative discourse of the ISZSP regarding the comprehension of the ability to walk on the moon but not on the sun. The assertion: “*I honestly do not blame them*”, takes a firm I-position and defends isiZulu-speaking children's common utterances in response to this test item. She supports this by speaking for other psychologists, suggesting that they are in the same position as her. However, because the ISZSP expresses a hegemonic, Western construction of intelligence, some isiZulu-speaking children obtain a low score for their (culturally appropriate) responses to this item. The low score reflects the mismatch between the construct the ISZSP intends to assess, and the test item by means of which the construct is assessed. Previous research findings indicate that contextually irrelevant IQ test items are potential sources of construct invalidity (Cormier, Hansen et al., 2011).

The following video extract from the assessment of one of the learners supports the expert reviewers' reports:

#### Video Extract 2:

Kweziny' iykhathi ilanga *if* uhamba k'lona kakhulu l'ngase likwaz' ukuthi libang' i-skin cancer so enyangen'... inyanga *is much cooler* <looks up> *and calm and ayinama eff-effect* em'ntwini *in any kind of way*. Sometimes kwilanga k'khon' abangazwan' nok'shisa, so inyanga *is basically, (.) it's much more comfortable*.

[Sometimes *if* you walk a lot out in the sun it might cause skin cancer so in the moon... the moon *is much cooler* <looks up> *and calm and* it does not have *eff-effect* on a person *in any kind of way*. Sometimes with the sun there are people who do not take the heat well, so the moon *is basically, (.) it's much more comfortable*.]

Careful inspection of the two extracts above reveals that the authoritative discourse that permeates the ISZSP excludes alternative, equally plausible and contextually relevant responses that children might give to this item. The learner in Video Extract 2 demonstrates contextual intelligence in terms of declarative and contextual knowledge (Ardila, 2005; Cocodia, 2014; Lima et al., 2002). Owing to global warming, people are cautioned daily against skin cancer; the message is to keep away from the sun and use protective lotions and other measures. This finding corroborates the view that indigenous Zulu perceptions of intelligence extend beyond accumulated or crystallized intelligence; they also incorporate mature reflection and worldly wisdom (amongst other skills) (Furnham et al., 2004; Furnham et al., 2009). Evidently, the ISZSP does not capture the metaphorical and idiomatic expressions that are present in the daily speech acts of isiZulu-speaking children.

Furthermore, the confusion that is experienced by the learners with regard to the above-mentioned item partly emanates from the fact that the word “inyanga” is a homonym<sup>10</sup>. In isiZulu, inyanga refers to the moon, a traditional healer, and a calendar month. The following responses, extracted from video data from an assessment of one of the learners, illustrate the confusion arising from the multiple meanings associated with the word:

Video Extract 3:

Response 1: Inyanga ingoba iwumuntu; ilanga, ingoba liyashisa angeke bakwazi ukufikela elangeni. [It is because the traditional healer is a human being; the sun, it is because it is hot they would not be able to reach the sun.]

Response 2: Ingoba inyanga iyasiza, ilanga liyashisa. [It is because the traditional healer helps, the sun is hot.]

Response 3: Elangeni kuyashisa kakhulu, uma unghamba elangeni ungagcina usumnyama, kodwa uma uya enyangeni uyangena endaweni engaphakathi, vele ngeke kube indawo engaphandle. [It is very hot in the sun, if you walk out in the sun you might end up being black ((scorched)), but when you go to the traditional healer you enter a place that is inside ((consultation area)), it would not be a place that is outside anyway.]

Participants pointed out that most isiZulu-speaking children who live in rural areas understand “walking on (in) the moon” as ukuhamba inyanga (going to a traditional healer). Therefore, participants felt that one of the reasons why children struggle and get confused with this item is comparing “going to the traditional healer” with “walking on (in)

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<sup>10</sup> A homonym is a word that is pronounced and spelled the same way as two or more other words but has a different meaning (Stevenson & Lindberg, 2015).

the sun". This also demonstrates that the way this item has been translated does not take into account isiZulu-speaking children's social languages and contextual knowledge.

Another item, Item 13 of the same subtest asks: "Kudingeke ngani ukuthi zonke izingane zigonyelwe ingxibongo?" [Why is it necessary for all children to be vaccinated against smallpox?] (Landman, 1988, p. 12). Participants reported that all the children they have tested did not know that ingxibongo is smallpox. "Ingxibongo" is an old Zulu word that is no longer in common usage. Participants reported that most children know smallpox as "smallpox" because adults also call it smallpox. The following extract shows how children typically respond to this question:

#### Video Extract 4:

- Response 1: <puts fingers on chin> <looks down> Yingoba kuhle. [It is because it is good.]
- Response 2: Angazi<sup>oo</sup> [I do not know<sup>oo</sup>] ((mumbles)) Ingxibongo ang'yaz'<sup>oo</sup>. [I do not know ingxibongo<sup>oo</sup>]
- Response 3: (.40) <peeps at instruction manual> (.17) <looks at Psyc> <looks at instruction manual> < puts hand on mouth and immediately removes it> ((looks embarrassed)) Angazi. [I do not know.]
- Response 4: Yini ingxibongo? [What is ingxibongo?]

The participants felt that children get this question wrong not because they do not know why vaccination is necessary, but it is because they do not know the word ingxibongo. Therefore, participants expressed that it would have been better to phrase the item as: Kudingeke ngani ukuthi zonke izingane zigome? [Why is it necessary for all children to be vaccinated?] because they believe that the intention is to assess children's understanding of the importance of vaccination, not the knowledge of the term "ingxibongo".

#### Video Extract 5: Comprehension subtest

(.7) <frowns> Ingxibongo, what is that?<sup>oo</sup> <smiles> (.14) Yin' leyo? [What is that?] <smiles> <looks at Psyc> [Psyc looks at Learner and smiles] <unsure facial expression> Ingxibongo? <looks away> <smiles> <shakes head> <raises eyebrow> <looks at Psyc> I have no idea what is that. Kodwa ngaz' u'th' umjovo. [But I know it is an injection] <frowns> I think ukuthi [that] (.) eyeyngan' eyngakanan'? noma? [it is for children of what age? or?] (.)

The non-verbal utterances in the video extract above show bodily dialogue (Manganyi, 1981). The silences, frowns, shaking of the head, raising of eyebrow, and expressions of



embarrassment demonstrate hidden dialogicality. The learner uses these non-verbal cues to buy time while she is thinking through the test items. Additionally, looking and smiling at the assessor can be translated as attempts to engage with the assessor and seek her assistance with the test items. This behaviour also means the learner was not familiar with the test items. After attempting to draw from her knowledge base and seeking assistance non-verbally, she then vocalizes that she does not know what was asked of her, and asked questions about it. This arose from the difficulty to respond to unfamiliar test items in the ISZSP.

The reports also indicated that Item 16 in the Comprehension subtest cannot be understood in context unless the tester rephrases the question and puts it in the manner in which it is phrased in the English version. Having to change the test instructions puts them in an ethical predicament. This item reads as follows: “Enziwelani amaphaki abantu emadolobheni?” [Why are large pieces of ground in cities sometimes used for public parks (not car parks) and not for buildings?] (Landman, 1988, p. 13). The Zulu version of the item reportedly confuses the children. Probably, the misspelling of “amapaki” (without aspiration) as “amaphaki” (with aspiration) affects the way the tester pronounces the word, thus adding to the learner’s confusion.

#### ERR Extract 5:

*U-item number 16 kwi subtest ye Comprehension uyazidida izingane. Zicabanga ukuthi umbuzo umayelana namapaki ezimoto. Engikwenzayo ukutolika umbuzo wesiNgisi ngiwubuze ngesiZulu nangesiNgisi. Now the problem with that is standardization. The instruction manual does not allow for that flexibility. And is giving 2 points for a correct answer to a modified question ethical? It is a dilemma. Nakwamanye ama subtests ngisebenzisa isiNgisi noma imifakela, njengo “kherothis” for carrot, nokuthi “amablokwe” – kwesinye isikhathi izingane zicabanga ukuthi ngithe “amabhulukwe (trousers)”. So I usually say “ama blocks” ukuze izingane zingadideki.*

*[Item number 16 in the Comprehension subtest confuses children. They think that the question is about car parks. What I do is translate the English question and ask it in isiZulu and English. Now the problem with that is standardization. The instruction manual does not allow for that flexibility. And is giving 2 points for a correct answer to a modified question ethical? It is a dilemma. Also in other subtests, I use English or loanwords, such as “kherothis” for carrot, and “amablokwe” – sometimes children think that I said “amabhulukwe (trousers)”. So I usually say “ama blocks” so that children would not be confused.]*

Confusing test items bring dialogical knots into the assessment process; forcing psychologists to deviate from the standardized test administration process. The tension results from the misrepresentation of the isiZulu voice in the test item, while the English voice is well-represented in the English version of the test item. The authoritative (dominant) English perspective runs throughout the ISZSP; it assigns more power to the English meanings of the test items, to the detriment of the meaning of test items in isiZulu. The question of construct validity then arises. In an effort to remedy the situation, the participant above posits the question bilingually. This comes with an ethical dilemma of how to score items that not have been administered in a manner that is prescribed in the ISZSP.

Furthermore, the above extracts illustrate that the translation of the ISZSP involved direct translation of words from one language to isiZulu, without ensuring that the meaning in the source language is not lost (Bracken & Barona, 1991; Brislin, 1980; Geisinger, 1994; Hambleton, 1994; Van de Vijver & Tanzer, 2004). Consequently, isiZulu voices (meanings) are lost and are not well-represented in the ISZSP. Both the assessors and the children assessed are rendered powerless in the face of the authoritative voice of the test, from the powerful establishment, i.e., psychology. This makes the assessment process monologic (Bakhtin, 1984; Beaujean, 2015; Miyazaki, 2009) and this militates against the fair assessment of African children. Translation of intelligence tests should allow for local expressions and customs of the target language and culture to avoid the misinterpretation of test results (Gladstone et al., 2008). The participants' attempts to address these challenges during administration, by rephrasing questions and through the use of loanwords, amongst others, compromise standardized administration, rendering norm-based, population-wide comparisons meaningless.

Another concern expressed by the participants regarding the Comprehension subtest is the use of stamps in Item 18. Owing to technological developments, stamps on letters are seldom used and children of the current generation might not be exposed to stamps and their use. This renders this test item obsolete. The following extracts illustrate this concern:

ERR Extract 6:

*Kukhona enye, u Item 18. With the advancements in technology, abantu manje abasavamile ukubhala izincwadi, bazifake izitembu, baziyise eposini. Abantu bashayelana izingcingo babhalelane kuma social networks. Ngisho ama job applications isikhathi esiningi athunyelwa nge fax ne email. Izingane eziningi ezisencane do not get this item right.*

[There's another one, *Item 18*. With the advancements in technology, people now seldom write letters, put stamps on them, and take them to the post office. People phone each other and text on *social networks*. Even *job applications* are mostly sent by *fax* and *email*. A lot of young children *do not get this item right*.]

The following video extract from an assessment of one of the learners, lends credence to the view expressed above:

Video Extract 6:

Response 1: (.8) Ukuze k'bonakal' ukuth' ubani o-o-oynamathiselile. [So that it would show who stuck it]

Response 2: <looks at Psyc> <looks away> Ingoba [It is because] <puts hand on eyes> kusuke k'funakala ubone ukuthi ikhuluma ngani. [it needs to show what it ((the letter)) is about.]

Response 3: <drops head down> Angazi. [I do not know.]

The ISZSP has not kept abreast with technological and other changes. Therefore, it carries obsolete voices. Since its publication, 26 years ago, there have been quite a number of technological developments that the test does not account for. It is for this reason that younger children, as indicated by the participant, give wrong answers to some test items. In the video extract, the gestures of covering the eyes with the hand and dropping of the head symbolize the assessed learner's feelings of uncertainty and embarrassment for not knowing the answer to the question that was posed. The learner would get a score of zero for this, and possibly a low IQ score, not because of poor intellectual functioning – but because of contextually irrelevant test items. This, again, poses threats to the construct validity of the ISZSP. This finding accentuates the importance of evaluating intelligence tests periodically to ensure their validity (APA, 2010; Hambleton, 1994, 2001; HPCSA, 2006; ITC, 2010, 2013). This would have to take into account the contextual changes and developments that take place over time to ensure relevance of the test items and the test itself (Bartram, 2001; Oakland, 2005; Parker et al., 2007; Radebe 2010; Venter 2000). Over and above addressing linguistic challenges that result from translation, this would also address cultural challenges.

#### **6.4.2.2 Items in the Memory subtest.**

Some items in the Memory subtest were experienced as challenging by the participating psychologists. The use of English names and foreign scenarios are some of the examples that were provided in the expert review reports.

ERR Extract 7:

*In my experience nge subtest ye Memory, uma ngixoxela abantwana lendaba, noma bezikhumbula ezinye izindawo, abawakhumbuli ama details anjenge: Zoo, Wilson, Fred, and Emily. Abakukhumbuli futhi ukuthi ngalokhokuhlwa, okusho ukuthi *that night*, kodwa bayakhumbula uma ngifunda ngokuthi ngalobobusuku. Lokhu kuchaza ukuthi noma ngabe abantwana bahlakaniphe kangakanani, angeke bawathole wonke amaphuzu abebengawathola kule *section*. Manje ke, angeke ngempela sithi *i-memory* yalababantwana ayikho ezingeni elilindelekile ngenxa yalokho, kodwa ama scores abawatholayo angasho njalo.*

*[In my experience with the Memory subtest, when I tell this story to children, while they remember some parts, they do not remember details like: Zoo, Wilson, Fred, and Emily. They also do not remember ngalokhokuhlwa, which means *that night*, but they remember it if I read it as ngalobobusuku. This means that no matter how intelligent the children are, they would not get all the points that they could get in this *section*. So now, we cannot really say that these children's *memory* is not at the expected level because of that, but the scores they get would say so.]*

ERR Extract 8:

Izingane eziningi uma sezisho ezikukhumbulayo endabeni kwi *subtest* ye *Memory*, aziwakhumbuli nhlobo amagama ezingane zika Mnumzane uMazibuko, Wilson, Fred no Emily. Mhlawumbe kwakuyoba ngcono ukusebenzisa amagama esi Zulu njengo Ayanda, Nozipho, Themba, njalonjalo, ngoba abamkhohlwa neze ubaba uMazibuko. Okuyinselelo kakhulu ukuthi ukuhlolwa kunzima kukodwa nje, futhi izingane ezihlolwayo ziyazi ukuthi zikulesosimo nje ngoba kukhona othe zinenkinga ethize. Kwenza lokho ukuthi izingane zisabe bese zizama kakhudlwana ukuthi zenze kahle ngenkathi zihlolwa. Kodwa uma kukhona ama *test items* afana nalena, kulukhuni kubona ukuthi benze kahle.

*[When most children say what they remember from the story in the *Memory subtest*, they do not remember the names of Mr Mazibuko's children at all, Wilson, Fred and Emily. Perhaps it would have been better to use Zulu names like Ayanda, Nozipho, Themba, etcetera, because they never forget ubaba uMazibuko. What is most challenging is that being assessed is hard on its own, and the children being assessed know that they are in that situation because someone said they have a certain problem. This makes children scared and they try harder to perform well during the assessment. But if there are *test items* such as this one, it is hard for them to perform well.]*

The participants quoted above query if the use of English names has an influence on the testee's capacity to recall all the details and characters in the story. In their reports,

participants reflect that the Memory subtest might not be a problem *per se* – because Zulu children are familiar with stories and folklore related to the African context. The story in the Memory subtest however, seems to be “distant” from the Zulu culture where most children are not accustomed to going to the zoo. The participants bring the suppressed voices of the assessed children to the dialogue to explain the assessed children's position where they could be aware of their shortcomings, and the unfamiliarity with the test items could confirm those shortcomings. This reportedly makes children take a long time to recollect the story and the names in it, which, sometimes, yields a low score. The following video extract from an assessment of one of the learners illustrates this:

#### Video Extract 7:

Engik'zwile k'thiwa uMazibuko wa-wathath' iyngane zakhe wahamba wabayisa ezu. Basuka ngo *eight* (.12). Ezuna mayefi.... ba... wa-wazikhokhela <squizes eyes> < puts hand on eyes> <puts hands on mouth> e-ezimbili wazikhokhela... wazikhokhela le'yodwa wangay'khokhela (.07). <looks away towards the door> <looks at Psyc> Umangabe efika... befika ezu <looks down> iyng...iyngane... iyngane<sup>oo</sup>, enye yajabula izinyoni, izinkawu zambulala ngensini. <looks towards the door> (.32) Enye yabona ama-amabhubesi kodwa yasaba ukuya kuwona eqala ebhonga. Yabona, yabona ~~izinyala~~ zigo...zigi...zigibela indlovu, enye ineminyaka engu 80. <scratches nose> Ba-bagibela ibhasi la *four* sebebuya. .hh 'Mabefika ekhaya, iy...iyngane zatsh...za-zaxoxela uma' wab' ukuthi babonani. La yash' ingan' ukuthi babone (.8) <looks away> ama...amabhubesi ( ) ((mumbles)) ibone iynkawu zi-zay'bulala ngensini <drops head down>.

[What I heard is that it is said uMazibuko took his children and went with them to the zoo. They left at *eight* (.12). At the zoo when he got.... they... he...he paid for them <squizes eyes> < puts hand on eyes> <puts hands on mouth> he paid for the tw-two... he paid for them he did not pay for this other one (.07). <looks away towards the door> <looks at Psyc> When he got there... they got to the zoo <looks down> the chil...the children... the children<sup>oo</sup>, one was happy for the birds, the monkeys shook her with laughter. <looks towards the door> (.32) The other one saw the-the lions but he was scared to go to them when they started to roar. He saw, he saw ~~antelopes~~ cli...cli...climbing onto the elephant, the other one was 80 years old. <scratches nose> They-they took the *four* o'clock on their way back. .hh When they got home, the chi...children tol...they-they told their mother about what they saw. Here the child said that they saw (.8) <looks away> the...the lions ( ) ((mumbles)) he saw the monkeys they...they shook him with laughter <drops head down>.]

As isiZulu-speaking children of the current generation are growing up and schooling in between cultures, there is a high likelihood of contact (geographically or through media) with other children and adults (e.g., parents, teachers, doctors, etc.) who have English names (Cook, 2013; Dosanjh & Ghuman, 1998; Husain & O'Brien, 2001; Magagula, 2009; Mufwene, 2014; Singleton, 2000; Zungu, 1995) – some of the Zulu children have English names themselves. Some might argue that remembering the English names and Western concepts should not be a problem. However, video data support the reflections in the expert review reports that most children do not remember all the English names in the story, and they tend to take longer to repeat the story (as indicated by the pauses and mumbling in Video Extract 7). Moreover, the learner in Video Extract 7 introduced an interference word of an animal “*izinyala*” [antelopes], which is not mentioned in the story, owing to unfamiliarity with some animals that were mentioned.

The participants also expressed that some of the practices and people's standards of living are unique to their culture, and consequently the language to describe them is dependent on their culture. The Memory subtest reportedly does not take cognisance of this.

ERR Extract 9:

*One should never assess intelligence of a child from the rural area with a test that has been validated in a Western culture. Izingane eziningi zikhula ezimweni ezihluke kakhulu-kakhulu ngokwemfundo, izindawo ezihlala kuzo – emakhaya nasezikoleni.*

*[One should never assess intelligence of a child from the rural area with a test that has been validated in a Western culture. A lot of children are growing up in conditions that differ vastly in terms of education, areas they live in – at homes and at schools.]*

ERR Extract 10:

*Uyabona, ulimi namasiko kokubili ku intertwined. Kwi subtest ye Memory kuxoxwa indaba yokuya e zoo. Lendaba ine cultural bias. This is not the experience that one can say it is familiar for izingane ezingamaZulu ezihlala ezindaweni ezisemakhaya eMzansi Afrika. Le subtest imayelana nenqubompilo namasiko abantu abathize abaphila impilo yesilungu. Ngakho ke, ukukhumbula into that does not make sense in one's world kunzima.*

*[You see, language and culture are both intertwined. In the Memory subtest, a story is told about going to the zoo. This story has cultural bias. This is not the experience that one can say it is familiar for Zulu children who reside in rural areas in South Africa. This subtest is about the lifestyle and culture of certain people who live a Western lifestyle. Hence recalling something that does not make sense in one's world is hard.]*

The concern highlighted in these extracts is that of cultural bias, which is owing to challenges regarding the transportability of assumptions regarding intelligence as a construct from the source test to the translated test (Bainter & Tollefson, 2003; Brislin et al., 2006; Greenfield, 1997). In ERR Extracts 9 and 10, the participants refer to the Westernized lifestyle and the assimilation to a Western culture that is evident in urban areas but not in rural areas. They allude to the the assessment of children from rural areas using a Westernized intelligence test. They imply (indirectly) that: a) there is a distinction between children living in rural areas and urban areas; b) children who live in urban areas live a Westernized life; and c) children living in rural areas live in contexts that differ from what is presented in ISZSP regarding living conditions and schooling. Therefore, Zulu voices and meanings of intelligence in relation to memory, as socially constructed in rural areas are silenced in this subtest.

This corroborates the findings of previous studies that have revealed that children from urban areas have more access to stimulating resources and stimulating environments, compared to children from rural areas. Some children who grow up in rural areas have less exposure to certain resources that would optimize their cognitive development and enhance their intelligence (Breslau et al., 2001; Daley et al., 2003; Downey, 2001; Espinosa et al., 1992; Flynn, 2000, 2012; 2013; Ijaz et al., 2013; Schooler, 1998; Sternberg & Grigorenko, 2004; Wachs et al., 1995). This has ramifications in terms of the assessment of children in rural areas using a Westernized tool, which has test items that children are not familiar with.

Moreover, previous studies have established that the translation of intelligence tests which includes culturally inappropriate items for assessing memory, pattern recognition, categorisation and other cognitive abilities results in item, content and administration bias since these mental abilities are influenced by culture (Beiser & Gotowiec, 2000; Bornman et al., 2010; Geisinger, 2006; Gladstone et al., 2008; Mushquash & Bova, 2007; Venter, 2000). Poor performance on the Memory subtest of the ISZSP that is reported by participants reflects the linguistic bias of the ISZSP (Bainter & Tollefson, 2003; Beiser & Gotowiec, 2000; Ntombela & Mhlongo, 2010; Tzuriel, 2001; Venter, 2000). In view of this, psychologists who use psychological tests are ethically and legally accountable for ensuring that the tests they use are culturally fair. The onus is also on them to develop norms that are representative of standardised performance on these tests to ensure that assessment is fair (Bornman et al., 2010; Foxcroft & Roodt, 2009; HPCSA, 2006; ITC, 2010, 2013; Oliden & Lizaso, 2014; RSA, 1996, 1998; van de Vijver & Tanzer, 2004).

#### **6.4.2.3 Items in the Blocks and Form Board subtests.**

The participants reported the use of Blocks and Form Board as items in the ISZSP as challenging for isiZulu-speaking learners. Some learners enter the assessment situation without having had prior exposure to or experience with the items in these subtests. This is more so for children from under-resourced environments. The participants have found that children who are not familiar with the items in the Blocks and Form Board subtests spend a lot of time familiarizing themselves and fiddling with the items in their hands, particularly the blocks. They spend a long time attempting to complete tasks, and consequently, they get low points owing to the Blocks and Form Board being timed subtests.

ERR Extract 11:

Nginokukhathazeka nje ngokusetshenziswa kwama Blocks kanye ne Form Board ekuhloleni *the logical reasoning, perceptual organisation, spatial visualisation and orientation*. Yize lama items kukholakala sengathi afanelekile ngokwesiko, *they are actually not culturally sensitive*, phezu kwalokho izingane zikalelwa isikhathi esinomthelela kumaphuzu eziwatholayo. *In my experience, I have found that izingane ezivela from a well-resourced home and school environment (lapho amathoyizi anjengama puzzles and blocks are readily available) zenza kangcono kunalezo izingane who may have not been exposed to such materials as often as the former. Umphumela walokho ukuthi izingane from the latter environment seem to take longer and perform 'poorer' in these subtests, which may not provide a good representation of their skills/abilities often yielding results that indicate possibilities of intellectual delays.*

[I am just concerned about the use of Blocks and the Form Board when assessing *the logical reasoning, perceptual organisation, spatial visualisation and orientation*. Although these items are believed to be culturally appropriate, *they are actually not culturally sensitive*, in addition to that the children are timed which has an impact on the points they get. *In my experience, I have found that children who are coming from a well-resourced home and school environment (where toys such as puzzles and blocks are readily available) perform better than those children who may have not been exposed to such materials as often as the former. The consequence of that is that children from the later environment seem to take longer and perform 'poorer' in these subtests, which may not provide a good representation of their skills/abilities often yielding results that indicate possibilities of intellectual delays.*]

This concern was found in seven of the ten reports. It reflects the perceived cultural inappropriateness and cultural bias of the test items for those isiZulu-speaking children who are not familiar with them. According to Cormier, Hasen et al. (2011), culturally



inappropriate test items in intelligence tests are potential sources of construct invalidity. This unfamiliarity with test items compromises the ISZSP's ability to capture the construct of intelligence as conceptualized in the African epistemology (Cocodia, 2014; Lima et al., 2002; Sternberg et al., 2008; Wilson & Mujtaba, 2008).

The participants' concern regarding the time limits on the above-mentioned subtests echoes findings from previous research. Similar to other subtests in the ISZSP, the scoring for the Blocks and Form Board subtests is based on power scores plus a time bonus (Landman, 1988b). Moreover, the scoring for these subtests permits for only one correct arrangement, i.e., the authoritative discourse. From this finding, these subtests are culturally biased (Visser & Viviers, 2010). It is evident that children who have not had prior exposure to materials similar to these test items struggle to complete the tasks in time, and obtain low scores. Cultural and linguistic biases contribute to inaccurate lower scores on cognitive measures for CLD learners (Bethlehem et al., 2003; Cormier, Hansen et al., 2011; Cormier, McGrew et al., 2011; Ferrett, 2011; Millett, 2010; Oliden & Lizaso, 2014).

Furthermore, the Western emphasis on reaction time and speed in assessing intelligence has been found to be incongruent with indigenous African conception of time and its relation to intelligence (Cormier, 2012; Ferrett, 2011; Greenfield, 1997; Kwate, 2001; Sparrow & Davis, 2000; Süß, Oberauer, Wittmann, Wilhelm, & Schulze, 2002). In indigenous African contexts, time and speed are valued, but intelligence is not necessarily and primarily defined in terms of reaction time and speed in which an individual completes a task (Ardila, 2005; Durojaiye, 1993; Kwate, 2001; Nsamenang, 2006; Rushton & Jensen, 2005; Sternberg et al., 1981; Süß et al., 2002; Wober as cited in Berry & Dasen, 1974). From an indigenous African perspective, intelligent people are unhurried, not because they lack the sense of urgency, but because time is encoded into sociocultural norms of human behaviour and inter-personal relationships – for human beings to control and not for time to control them (Ardila, 2005; Greenfield, 1997; Gyekye, 1996; Kwate, 2001; Wober as cited in Berry & Dasen, 1974).

In indigenous African thought, intelligence is also shown by the ability to demonstrate slow, vigilant and unhurried thought as well as reflection when completing tasks, while having the ability to discern which activities need to be completed speedily (Wilson & Mujtaba, 2008; Wober as cited in Berry & Dasen, 1974). From this perspective, people are not enslaved by time, because they create time to suit their needs (Viljoen, 2008). This value – the importance of allowing oneself enough time in order to perfect an activity as opposed

to completing it hastily – is instilled in African children from an early age (Gyekye, 1996; Rushton & Jensen, 2005). Thus, isiZulu-speaking children's ways of doing certain activities and tasks of the ISZSP might be different from those of the norms of the original Western measure (Durojaiye, 1993; Greenfield, 1997; Kwate, 2001; Nsamenang, 2006; Sparrow & Davis, 2000; Sternberg et al., 1981). This finding then suggests a shift towards ways of thinking about and understanding intelligence within multicultural and multilingual contexts. This would lead to the construction of intelligence tests that ensures that construct validity as well as cultural and linguistic appropriateness, are not compromised (Cormier, McGrew et al., 2011; Ferrett, 2011; Seabi, 2007; Smit, 2010; Visser & Viviers, 2010). The new tests might not be the ISZSP, but different tests altogether.

#### **6.4.2.4 Items in the Absurdities subtest.**

More findings relating to the participants' views regarding the cultural appropriateness of the test items of the ISZSP relate to the Absurdities subtest. This subtest requires learners to demonstrate an ability to identify what is different or wrong with the pictures in the subtest. Children's familiarity with test items also has an influence on how children perform in the Absurdities subtest. This is illustrated by the following extracts:

ERR Extract 12:

Uhlobo lwemibuzo esiyibuzayo ku Absurdities ibuza okungajwayelekile noma okungekho, *that is, missing parts*. Ngokosiko lwamaZulu, akujwayelekile ukuthi umuntu afundiswe ukufunisa okuyinkinga; ngisho ezimweni ezinzima, kumele afune okuyisisombululo okuzokwenza ukuthi impilo iqhubekele phambili. Isibonelo nje esilula ukuthi uma umuntu ebuzwa impilo, uqale athi uyaphila, noma ngabe ebuthakathaka; ubuthakathaka ububika kamuva. Manje ke le *test* yona igcizelela lokho okuyinkinga, bese umhlolwa angazizwa sengathi lokho akushoyo kuyikho, azingabaze.

[The type of questions we ask in Absurdities asks for what is unusual or what is not there, *that is, missing parts*. In the Zulu culture, it is unusual for a person to be taught to search for problems; even in hard times, a person must search for solutions that enable life to move forward. Just a simple example is when a person is asked how they are, he or she starts by saying he or she is fine even when they are sick; he or she reports the sickness afterwards. Now this *test* emphasizes that which is problematic, then the testee does not feel like what he or she is saying is right, he or she doubts him/herself.]

The participant above emphasizes on the distinction between the cultural constructions of intelligence. In the indigenous African worldview, one seeks for similarities in order to complete the whole picture; therefore, asking for differences could confuse the test-

takers. The indigenous African perspective values gestalt (holistic) thinking (Asante, 1980, 2003), in contrast to the Western isolationist tendency to break things into their constituent parts (Cattarinich, Gibson, & Cave, 2001; Cocodia, 2014). The ISZSP requires the latter from the learner. From a Bakhtinian lens, this demonstrates power dimensions between the Western and African epistemologies. The requirement of the Absurdities subtest shows that the authoritative discourse of the ISZSP that is infused with Western theories of knowing and thinking prevails, giving no room for children to demonstrate their socioculturally mediated intelligence. In other words, the Western epistemologies and values are designated as dominant and are given greater power, which correlates with the monologic discourse (Bakhtin, 1981; O'Connor & Michaels, 2007), while the indigenous African knowledge traditions fade to the background. This presents a clash between these voices, that may have implications for the construct validity of the ISZSP.

#### ERR Extract 13:

Ku Absurdities engike ngakunaka ukuthi ku *Item 11 and 14* abafundi abawuboni umehluko noma okungalungile ngezizathu mhlampe zokuthi abanye kakhulukazi abantwana laba abadala uzwingi noma umjikelo abawujwayele ngenxa yokuthi ezinye izikole emakhaya nase lokishini azinabo ozwingi, noma bekhona izakhiwo azifani. Isikhathi esiningi *in the Zulu culture you find indigenous games* ezidlalwayo ezingafani nalezi ezaziwa ku *Western culture*. Ku *Item 14* izingane eziningi azilijwayele kakhulu ibhodwe lesiZulu – *the three-legged pot* – kakhulukazi lezi eziphuma emakhaya la angayenzi imicimbi emikhulu la khona kubaswa khona umlilo ngaphandle kubekwe ukudla ngebhodwe lesiZulu. Noma belazi *we cannot assume* ukuthi bayawazi onke ama *features* alo. Bese beyahluleka ukubonisa okungalungile kulama *items* e Absurdities.

[In Absurdities what I have noticed is that in *Item 11 and 14* learners do not see the difference or what is wrong for reasons maybe such as some older children are not familiar with the swing because some schools in the rural areas and in the townships do not have swings, if they have the structures are not the same. Most of the time *in the Zulu culture you find indigenous games* that are played that differ from those known in the *Western culture*. In *Item 14* a lot of children are not that familiar with the Zulu pot – *the three-legged pot* – especially those who are coming from homes where they do not have big celebrations (or parties/gatherings) where the fire is made outside for cooking food with a Zulu pot. Even if they know it *we cannot assume* that they know all its *features*. Then they fail to indicate what is wrong with the Absurdities *items*.]

Regarding some items in the Absurdities subtest, participants express that testing becomes more difficult when the child is expected to focus on the incompleteness when presented

with items that he or she does not know or is not familiar with. The participant above mentions cultural differences and the distinction between the rural and the urban environments, where some children may be familiar with some test items, while others are not. This raises a question concerning the dominant voice in the dialogue (Bakhtin, 1981) during the administration of this subtest. For example, the participant makes reference to indigenous games that Zulu children would play. She presents this reference as a means to give a possible alternative to the item with the swing. This seems to indicate that the ISZSP excludes games or play objects that isiZulu-speaking children would be familiar with. In that way, the ISZSP continues to exercise an authoritative voice over what is known by some Zulu children. This does not allow the assessed children to take their positions as "hero", capable of contributing meaningfully to the assessment act. Furthermore, to expect Zulu children to look for something that is absurd is incongruent with how they are taught and expected to approach life. This is what Kwate (2001) referred to as the Eurocentric appreciation of incompleteness, which cannot be certainly thought of as intelligent behaviour in the African context. This renders this subtest culturally inappropriate for isiZulu-speaking children.

#### **6.5 The Confusing Instructions of the ISZSP**

For any form of psychological assessment, it is essential for tests to be administered in an ethical and standardized manner. This study found that it has proven difficult to do this with the ISZSP as the language and items of the test pose challenges. The instructions in the administration manual are essential in the administration of a psychological assessment tool. For the ISZSP, some of the instructions were found to be helpful, while others were found to be problematic. This has implications for three factors, namely, how psychologists instruct the children being assessed, how the children understand the requirements of the task, and the IQ score that children would obtain.

With some instructions, participants felt that the use of ancient isiZulu proves problematic and confusing to children as it differs from isiZulu spoken by the current generation. Participants also felt that the manner in which the instructions are phrased seems to assess language proficiency instead of what the test is supposed to measure. An illustration of such an instruction is in the following extracts:

ERR Extract 14:

*Amanye amagama and items used in the test seem to be 'archaic' – madala kakhulu – less relevant to izingane ezikhuluma isiZulu as their mother tongue in this present age.*

Sihluke kakhulu kwisiZulu esikhulunywayo namhlanje. Umphumela walokhu ukuthi izingane ezihlolwayo *often seem unable to understand or follow the instructions given*; hhayi ngoba kunzima ukuphendula noma impendulo ingaziwa, kodwa kungoba ama *instructions* engazwakali noma engaqondisiseki kahle.

[Some words and items used in the test seem to be 'archaic' – they are very old – less relevant to children who speak isiZulu as their mother tongue in this present age. It differs a lot from isiZulu that is spoken today. The consequence of this is that the assessed children *often seem unable to understand or follow the instructions given*; not because it is difficult to answer or the answer is unknown, but it is because the *instructions* are not clear or are not comprehensible.]

#### ERR Extract 15:

Imiyalelo yalana kwi Form Board, awazi noma ingane ihlolwa isiZulu uqobo (language proficiency) noma *i-ability for visual organisation with concrete objects*. Zimbalwa izingane manje ezazi imibala ngesiZulu nezazi ama *shapes* ngesiZulu.

[The instructions here in Form Board, you do not know whether the child is assessed for isiZulu itself (*language proficiency*) or the *ability for visual organisation with concrete objects*. There are a few children now who know colours in isiZulu and who know *shapes* in isiZulu.]

The participants express that the learners' performance on the ISZSP is often affected by not understanding the obsolete language in the test, more than by the lack of knowledge of what is required or expected. What can also be pointed out from the above extracts is that, while the translation of the ISZSP was necessary and ethical, the manner in which some of the instructions are constructed brings about confusion – whether the ISZSP assesses language proficiency or intellectual ability. Similar to this finding, in their study, Grégoire et al. (2008) found that while translating instructions and items of psychological tests to the indigenous language of the testee might seem to be a good solution to avoid cultural bias, the test becomes more difficult and biased when the translated words are less common in the target language. This could invalidate the findings of the test. Therefore, psychologists should use translated instructions vigilantly and, ensure that they assess intellectual functioning, and not language proficiency.

Furthermore, participating psychologists have found the use of certain words in the instructions such as one in the Blocks subtest problematic. For instance, one instruction reads as follows: “*Manje bheka lesifanekiso bese ubumba lesifanekiso ngamabloki. Qala*”

[Now look at this pattern (point) and put these blocks together in such a way that they form a similar pattern. Begin] (Landman, 1988, p. 44).

ERR Extract 16:

Ku page 44, bakhuluma ngokubumba umfanekiso, okungafani nalokho okukwi *instruction* ebhalwe ngesiNgesi. Isikhathi esiningi ngesiZulu uma izinto zibunjwa, kusetshenziswa udaka or *what we call clay*. Igama elingafaneleka esikhundleni segama "ubumba" is "wenza" noma "uzama ukuhlanganisa lamabloki ukuze akhiphe lomfanekiso".

[On page 44, they speak of moulding an image, which is not the same as what is in the *instruction* that is written in English. Often times in Zulu when things are moulded, mud is used or *what we call clay*. The word that would be appropriate instead of the word "ubumba" is "make" or "try to assemble these blocks so that they form this pattern".]

ERR Extract 17:

*I have found the layout of the instructions easy to follow mostly especially as there is guidance in English. Lokhu kusiza in verifying what it is exactly that the tester is expected to "instruct" or "guide" the testee into doing. Bese futhi ngingathi ukufaneleka kwemiyalelo in this test kuhambisana nokufaneleka kolimi olusetshenziwe. For instructions, kubukeka sengathi it is the use of direct translation of terms okuphosa inselelo when administering the ISZSP. Kunomthelela lokhu on the meaning of the instructions and the comprehension of the item in relation to that particular culture.*

[*I have found the layout of the instructions easy to follow mostly especially as there is guidance in English. This aids in verifying what it is exactly that the tester is expected to "instruct" or "guide" the testee into doing. Then again I would also say the appropriateness of the instructions in this test goes hand-in-hand with the appropriateness of the language used. For instructions, it seems like it is the use of direct translation of terms that poses a challenge when administering the ISZSP. This has an impact on the meaning of the instructions and the comprehension of the item in relation to that particular culture.*]

What is highlighted in the two extracts above is the discord between the words used in the instruction and the actual meaning of that word, which does not relate to the activity that the testee is required to perform. This relates to the postulation in the literature that during the translation of psychological tests, meaning as well as conceptual and semantic equivalence often get lost and at times the translation leads to unintended meanings that are unrelated to the context (Bracken & Barona, 1991; Brislin, 1980; Erkut, 2010; Geisinger,

1994; Hambleton, 1994; Mason, 2005; Oliden & Lizaso, 2014; Temple, 2005; Van de Vijver & Tanzer, 2004; Venter, 2000). This finding further emphasizes the need to revise and update the isiZulu in the ISZSP.

An example of an instruction referred to in ERR Extract 17 is found in the Absurdities subtest, which reads as follows: *“Bhekisisa lomfanekiso. Kukhona okungalungile noma okuhlekisayo kuwona. Ngitshele ukuthi yini engalungile noma ehlekisayo”* [“Look carefully at the picture. There is something wrong or funny in it. Tell me what is wrong or funny”] (Landman, 1988, p. 46).

ERR Extract 18:

Igama elithi okuhlekisayo kwimiyalelo ye subtest ye Absurdities ngokuvamile ngesiZulu lisetshenziselwa to refer to something that is “funny”, not something that is absurd or ridiculous. What is absurd ngesiZulu okungenangqondo, whereas in English, “funny” is one of the synonyms or related words for “absurd”. Ngalesosizathu, esikhundleni sokuthi okuhlekisayo, Ngithi okungenangqondo. When I see that the child is confused, ngithi okungajwayelekile which refers to something that is unusual.

[The word okuhlekisayo in the instructions of the Absurdities subtest is usually used in isiZulu to refer to something that is “funny”, not something that is absurd or ridiculous. What is absurd in isiZulu is okungenangqondo (that does not make sense), whereas in English, “funny” is one of the synonyms or related words for “absurd”. For that reason, instead of saying okuhlekisayo (that which is funny), I say okungenangqondo (that does not make sense). When I see that the child is confused, I say okungajwayelekile which refers to something that is unusual.]

ERR Extract 19:

For example, in the Absurdities subtest the term “okuhlekisayo” is used to refer to something that is “funny”. Ngiye ngizibuze ukuthi yini ekhona ocwaningeni nakwi development of the ISZSP that gives the impression yokuthi izithombe zingahlekisa kwi testee. The testee might not think or view the item as “funny” futhi kubalulekile ukuthi sikucabange lokho ngesikhathi sokuhlolwa ngoba umyalelo onje might affect the response to the items and subsequently the results. Ngaphandle kwalokho, le subtest ayihloselwe ukuhlola i-affect, ngakho ke umuntu angasebenzisa igama elithi “okungajwayelekile” elisho oku- “unusual”.

[For example in the Absurdities subtest the term “okuhlekisayo” is used to refer to something that is “funny”. I often ask myself what it is in the research and development of the ISZSP that gives the impression that the pictures could be funny for the testee. The testee might not think or view the item as “funny” and it is important for us to be mindful

of that during the assessment as such an instruction *might affect the response to the items and subsequently the results*. Besides, this *subtest* is not aimed at assessing *affect*, so one would rather use the term "okungajwayelekile" which refers to something that is "*unusual*".]

In order to present this instruction of the Absurdities subtest in a manner that would not confuse isiZulu-speaking children, the participants resort to using words that they feel would be comprehensible to the children. This is because they understand that this subtest is intended to assess aspects of intelligence, not affect or feelings/emotions. In her query about the development of the ISZSP and the research that went into it, the participant in ERR Extract 19 invites addressivity of the matter from a third party, i.e., the HSRC who published the test. She speaks from an ethical position that seeks to find more details regarding the procedures that were undertaken during the translation of the ISZSP (ITC, 2010, 2013). Furthermore, she emphasizes that it is important to be cognisant that during the assessment, such an instruction might affect the children's responses to the items and subsequently the results (Shuttleworth-Edwards et al., 2012). How the instruction is given is crucial because when children struggle to identify what is wrong in the picture, which is unfamiliar to them, they try to find something "funny" (ehlekisayo) in it, and they would not find it.

The challenges that were identified in the instructions of the ISZSP were also attributed to the perceived direct translation and identified spelling errors. Participants remarked that this leads to the instructions being unclear and at times direct translation alters the meaning of the instructions. This is illustrated in the extracts below:

ERR Extract 20:

Eminye imiyalo ibhalwe ngendlela engacacile noma engaqondeki – Ngicabanga ukuthi lokhu kwenziwa yi *direct translation and wrong spelling*. Umzekelo, umyalelo we subtest ye Pattern Completion: "Bheka lesisifanekiso. Nguwumfanekiso ((this is the problematic part of the instruction)) lokhu kodwa awuqedeliwe. Esikweleni sokugcina kukhona okungekho ngifuna ugcwalise lengxenye eseleyo. Bhekisisa-ke kulesisifanekiso ukuthi yini okuswele idwetshwe lapha? (*Point to the empty square*). Qedela lesisifanekiso. Awungi khombise." Mina ngakhetha ukuthi lomyalelo ngiwunike kanje: "Bheka lesisithombe. Isithombe lesi kodwa esingaphelele. Bhekisisa kulesisithombe ukuthi ikuphi okushodayo okungadwetshwanga. Esikweleni sokugcina kukhona okungekho, ngifuna udwebe khona lokho okushodayo. Ake ungikhombise."



[Some instructions are written in a way that is not clear or not comprehensible – I think that is caused by *direct translation and wrong spelling*. For example, the instruction for the Pattern Completion *subtest*: “Bheka lesisifanekiso. Nguwumfanekiso ((this is the problematic part of the instruction)) lokhu kodwa awuqedeliwe. Esikweleni sokugcina kukhona okungekho ngifuna ugcwalise lengxenye eseleyo. Bhekisa-ke kulesisifanekiso ukuthi yini okuswele idwetshwe lapha? (Point to the empty square). Qedela lesisifanekiso. Awungi khombise.” I decided to give this instruction like this: “Look at this picture. This is a picture but it is incomplete. Look carefully at this picture for what is missing and was not drawn. There is something missing in the last square, I want you to draw that which is missing. Now show me.”]

#### ERR Extract 21:

Umyalo we-*subtest* ye Similarities uthi: “Ngizokusho izinto ezimbili ezifana ngendlela ethize, uzongitshela ukuthi zifana ngandlelani. Ungesabi ukuzama nakuba ungenaqiniso ((this is the problematic part of the instruction)). Makesizame lezi ezimbili.” Ngabe kungcono ukuba lomyalo ubhalwe njengokulandelayo: “Ngizokusho izinto ezimbili ezifana ngendlela ethize, uzongitshela ukuthi zifana ngandlelani. Ungesabi ukuzama nakuba ungenasiqiniseko. Makesizame lezi ezimbili.” Uma sifunda lomyalo sithi “ungenasiqiniseko” *which means unsure*, esikhundleni sokuthi “ungenaqiniso” *which means being untruthful*, kwenza umehluko omkhulu ngoba *i-participant* ithola ukuthi ivumelekile ukusho lokho ohlodayo akulindele noma ngabe ingenasiqiniseko. Yize lokhu kungukulungisa okuncane, kwenza umehluko omkhulu kwindlela abantwana abenza ngayo kulokhu kuhlolwa konke. Uma bazi ukuthi abayazi impendulo eyiqiniso, kuba nzima kakhulu ukuthi baqhubeke. Kodwa uma bazi ukuthi izimpendulo azidingi ukuthi zibe ngendlela eyodwa ngqo, bayakushisekela ukuqhubeka.

[The instruction for the Similarities *subtest* states: “I am going to name two things that are alike in some way, you must tell me in what way they are alike. Do not be afraid to try even if you are untruthful ((this is the problematic part of the instruction)). Let us try these two.” It would be better if this instruction is written as follows: “Ngizokusho izinto ezimbili ezifana ngendlela ethize, uzongitshela ukuthi zifana ngandlelani. Ungesabi ukuzama nakuba **ungenasiqiniseko**. Makesizame lezi ezimbili.” If we read the instruction and say ungenasiqiniseko *which means unsure*, instead of ungenaqiniso *which means being untruthful*, it makes a huge difference because the *participant* finds that he or she is allowed to say what is expected by the tester even when he or she is unsure. Even though this is a small adjustment, it makes a huge difference in the way in which children perform in this whole assessment. If they know that they do not know the true answer, it becomes very difficult for them to continue. But if they know that the answers do not have to be in one absolute way, they become eager to continue.]

In ERR Extract 20, the participant quoted one of the misspelled words in the instructions of the ISZSP, which is: “*nguwumfanekiso*”. The correct spelling of this word would be: “*ngumfanekiso*”, which means: “it is a picture or an image.” When read as it is, “*nguwumfanekiso*”, might sound as if it means “you are a picture”, which might confuse the testee (cf.: Appendix 18 for more identified errors). In ERR Extract 21, the participant gives an example of the word “*ungenaqiniso*”, which is wrongly translated. The utterance “*ungenaqiniso*” refers to the character of the testee – an untuteful person; a person devoid of truth – and not to the state of being uncertain about the answer. This incorrect translation has been expressed by the participants as impacting negatively on the testees’ performance on this task.

The participants indicate that the minute difference made by the manner in which they adjust the instructions assists them administer the ISZSP in a manner that they think would be appropriate. They state that it also assists them in helping children understand the expectations of the tasks. The challenge highlighted by the participants above is similar to what some previous studies have found regarding threats that translations pose to the administration of tests. Literature has shown that during assessment, psychologists tend to make informal oral translations in an attempt to rectify language and translation errors in tests. This act compromises the validity of standardized tests (Ardila, 2005; Carter et al., 2005; Duffy & Wong, 2003; Foxcroft & Roodt, 2009; Mitrushina et al., 2005; Shuttleworth-Edwards, Donnelly et al., 2004; Shuttleworth-Edwards, Kemp et al., 2004).

In an attempt to give instructions that would assist the testee to understand what they should do, the alterations that the participants make to the instructions compromise the standardised administration of the ISZSP. This is the case because it cannot be guaranteed that all psychologists who use the ISZSP in their practice modify the instructions in the same manner, as these informal oral translations have not been documented.

The following extracts illustrate some of the difficulties that are encountered when instructions are missing from the manual or are inconsistent for certain items within subtests:

ERR Extract 22:

Uma ubheka i-subtest yeProblems there are no instructions for Items 1 to 15. Imiyalelo iqhamuka isivela ku Item 16. Ekuqaleni, awekho ama *instructions* ngesiZulu, kukhona nje ama *directions* abhalwe ngesiNgisi. Izinombolo zibhalwe ngesiNgisi, kodwa i-*test administrator* ilindeleke ukuthi isho izinombolo ngesiZulu, okwenza kube lukhuni ukubeka kahle imibuzo ngesiZulu ngoba awujwayele ukubala ngesiZulu noma ukusho izinombolo

ngesiZulu. Lokhu kwenza *i-test administrator* yethule ama-*test items* ngendlela ephambana nendlela e-*standardized of administering the test*.

[When you look at the Problems *subtest* there are no instructions for Items 1 to 15. The instructions pop up for *Item 16*. At the beginning, there are no instructions in isiZulu, there are just *directions* written in English. The numbers are written in English, but the *test administrator* is expected to say the numbers in isiZulu, which makes it difficult to put the questions properly in isiZulu because you are not used to counting in Zulu or saying the numbers in isiZulu. This makes the *test administrator* present the *test items* in a way that conflicts with the *standardized way of administering the test*.]

#### ERR Extract 23:

Bheka nje, i-subtest ye Comprehension ayinayo imiyalelo yesiZulu, imiyalelo yesiZulu ke ivese iqhamuke kumhloli. Kukhona nje kuphela imibuzo le oyibuza lo ohlolwayo. Futhi ke, eminye imibuzo esendaweni ye Comprehension kwi *answer booklet* ayifani naleyo ekwibhukwana lemiyalelo, e.g., *Item 12 in the manual* kuthi: Usibekelani isandla phambi komlomo uma ukhwehlela? Bese kwi *response form* kuthi: Uwuvalelani ngesandla umlomo uma ukhwehlela? Le ingenye yezinto okwakumele ukuthi abantu abatolika i-ISZSP bazibheke.

[Just look, the Comprehension *subtest* does not have instructions in isiZulu, the isiZulu instructions then just come from the tester. There are only questions that you ask to the testee. Also, some questions in the Comprehension section in the *answer booklet* are not the same as those in the instruction manual, e.g., *Item 12 in the manual* states: Why should you put your hand in front of your mouth when you cough? Then in the *response form* it states: Why do you close you mouth with your hand when you cough?\_It is one of the things that the people who translated the ISZSP should have looked into.]

Most instructions and test items of the ISZSP are written bilingually in the instruction manual – as required by the ITC (2010) – but some are not. Having test items (such as numbers) and instructions that are written only in English (as indicated by the participants) in a test that is meant to be administered and instructed in isiZulu demonstrates the amount of power and authority that English carries in the ISZSP – despite the ISZSP being a tool that was constructed for use solely with isiZulu-speaking children. This echoes Bakhtin's (Bakhtin, 1981) postulation that discourse is always drenched with the asymmetries of power and various forms of hierarchical dominance. According to Bakhtin (1981, 1986) such power relations and dominance serve to illuminate European languages and centralize their dialects over other languages. For these instructions, there is no sharing of power and comprehension that would give isiZulu utterances and voices an equal opportunity to be

heard (O'Connor & Michaels, 2007). With the unavailability of the Part I Manual, it is not possible to know what led to keeping some instructions and test items in the source language only, i.e., why they were not translated to isiZulu.

Moreover, participants expressed that the inconsistencies and missing instructions from the manual puts them in a difficult position as they have to formulate these missing instructions themselves, which poses challenges to the standardized administration of the ISZSP. Therefore, the way these instructions are presented is not standardised across the testers as they each have to come up with their own instructions. This indicates that, during administration, to address this challenge, the psychologist draws utterances from her past social and cultural spheres of communication and chooses those utterances she has deemed as her truth (Akhutina, 2003; Bhatia, 2011; Bakhtin, 1981; Hermans, 2002; Holquist, 1990; Shotter, 2000; Tsitsipis, 2004; Wertsch, 1991). These utterances may be borrowed from her professional training background, which relied on Western models and theories of intelligence and psychological assessment. She would then impose these utterances and voices of others on the ISZSP itself and on the testee. These utterances might differ from those of other psychologists, and they might formulate instructions in different ways, thus further compromising the standardized administration of the ISZSP.

ERR Extract 24:

*Item number 12 kwi subtest ye Problems awukho. Imibuzo igxuma kusuka ku Item 11 kuya ku Item 13. Kuyi challenge as the cards only start at Item 16. Yize ke I often remedy the challenge by providing a full score for the item, one wonders how ethical that is and how significant the impact of this may be on the results of the test.*

*[Item number 12 in the Problems subtest is missing. The questions jump from Item 11 to Item 13. It is a challenge as the cards only start at Item 16. Even though I often remedy the challenge by providing a full score for the item, one wonders how ethical that is and how significant the impact of this may be on the results of the test.]*

The participant above reflects on the ethical dilemma posed by missing items and instructions in the ISZSP. The statement: “one wonders how ethical that is and how significant the impact of this may be on the results of the test” reflects thoughts where she employs an utterance that seeks to engage a third party such as the HPCSA that regulates psychological assessment in South Africa. She resorts to awarding a full score to a task when she does not know what it was meant to be, how it was to be instructed, and how the testee would have performed to complete it. This needs careful attention as psychologists always have to be sensitive to the implications of psychological assessment

on the future lives of their clients (Artiles & Ortiz, 2002; Mdlalo, 2013; Miller, 2011; Valencia & Suzuki, 2001). Additions to and deviations from the standardized manner in which the ISZSP should be administered can lead to the misinterpretation of results and misdiagnosis of clients (Ferrett, 2011; Foxcroft et al., 2004; Kanjee, 2005; Nell, 2000; Shuttleworth-Edwards et al., 2012). The lack of guidance in the ethics codes regarding missing items and instruction in tests puts her in a position that makes her award full scores for the missing items, which can invalidate the results and can be perceived as unethical practice.

ERR Extract 25:

*Enye inselelo, which may also speak to the challenges in giving instructions, is one experienced in the assessment of the Form Board subtest. With particular reference to ama pieces amakhudlwana, umyalelo ubhalwe ngesiNgisi nje kuphela futhi uthi nje "place the loose parts for the testee ..."* Okokuqala, akukho okukhombisayo or an indication, kuwo uqobo ama parts, ukuthi yimaphi ama "loose parts" okumele abekwe, ikakhulu uma uhlola ikhono lohlolwayo lokuhlanganisa i-circle lapho kukhona izindlela ezintathu zokukwenza lokho. Okwesibili, azikho izithombe ezisizayo (visual aids) zokulekelela umhloli ukuthi akhethethe the correct pieces to use for that particular item.

*[Another challenge, which may also speak to the challenges in giving instructions, is one experienced in the assessment of the Form Board subtest. With particular reference to the bigger pieces, the instruction is written only in English and just states "place the lose parts for the testee ..."* Firstly, there is nothing showing or an indication, on the parts themselves, as to which "loose parts" should be placed, especially when assessing the testee's skill to assemble the circle when there are about three ways to do so. Secondly, there are no assisting images (visual aids) to help the tester in selecting the correct pieces to use for that particular item.]

Important issues are raised in relation to vague instructions and the lack of visual aids that would complement instructions in the performance subtests. This symbolizes an interruption in the dialogue between the ISZSP and psychologists. From the participant's claim, it can be deduced that having visual aids in addition to the instructions would assist in the administration and scoring process. Missing and/or inconsistent, and vague instructions have a bearing on the use of the ISZSP for isiZulu-speaking children. They have implications for the final IQ scores they obtain, as well for the recommendations made based on those IQ scores. They put the testers in an ethical dilemma when they make procedural decisions on their own, that are not standardized or documented anywhere (Ferrett, 2011; Nell, 2000; Shuttleworth-Edwards et al., 2012). They make them question their

ethical practice. This is therefore experienced by the participants as one of the difficulties that need to be attended to.

### **6.6 The Inconsistencies in the Rubrics and Scoring Criteria of the ISZSP**

The extent to which psychologists compute children's IQ accurately depends partly on how they follow rubrics and score children's performance on the assessment. The finding of the current study is that the rubrics of the ISZSP are at times difficult to use and follow as there is not always space provided for scoring certain aspects that may assist in arriving at the particular score that is required on the answer booklet. A challenge expressed below is posed by rubrics that are written in English only for some subtests. This challenges psychologists in awarding the appropriate scores to isiZulu correct answers that do not feature in the English rubrics.

ERR Extract 26:

Kunzima ukunika i-score esifanelekile kwi *subtest* ye Comprehension ngoba lapha kuma *rubrics* izimpendulo zibhalwe ngesiNgesi kuphela. *Testees sometimes give answers that do make sense and should score but because of the instruction and acceptable answers given kube nzima ukunikeza i-score esifanele, e.g., ku Item 13: Kudingeke ngani ukuthi zonke izingane zigomele ingxibongo? (Why is it necessary for all children to be vaccinated against smallpox?)* Izingane eziningi ziyasho zithi aziyazi ingxibongo kepha ziyazi ukuthi izingane zigomela ukuthi zingatholi izifo ezithize.

[It is hard to give the right score in the Comprehension *subtest* because here in the *rubrics* answers are written only in English. *Testees sometimes give answers that do make sense and should score but because of the instruction and acceptable answers given then it gets hard to give an appropriate score, e.g., for Item 13: Kudingeke ngani ukuthi zonke izingane zigomele ingxibongo? (Why is it necessary for all children to be vaccinated against smallpox?) Most children do say that they do not know ingxibongo but they know that children are vaccinated so that they do not contract certain diseases.]*

ERR Extract 27:

Ama *instructions* kwi Comprehension abhalwe ngolimi lwesiZulu kepha izimpendulo zibhalwe ngesiNgesi okwenza kubenzima ngesinye isikhathi ukunika imaki elifanelekile. Lokhu kuyinkinga ngokuthi amanye amagama esiZulu ayayifinqa inkulumo ongathi mawuwaphendulela esiNgisini, kube umusho omude *and vice versa*. Eminye futhi yemibuzo ku Comprehension yenziwe kakhulu *i-direct translation* okwenza kolaleyo

anikeze impendulo ehlukile *because the translation has given the question a different meaning.*

[The *instructions* in Comprehension are written in the isiZulu language but the answers are written in English which makes it difficult sometimes to give a score that is appropriate. This is a problem because some isiZulu words shorten the speech which if you were to turn them into English, they would be a long sentence *and vice versa*. Also, there was too much *direct translation* for some of the questions in Comprehension which makes the listener give a different answer *because the translation has given the question a different meaning.*]

The above extracts illustrate difficulties with scoring an answer that is deemed right by the tester, while the rubric states that it should be awarded fewer points or a zero. The participants attribute this to the provision of answers written in English only. This is another challenge that relates to the standardisation of the ISZSP. The standardisation process appears to have been incomplete if there were never samples of what correct answers in isiZulu would be. This is another important point to consider as direct instruction at the time the ISZSP was translated could have posed potential problems. Previous studies have found that the translation of psychological assessment tools into indigenous languages often does not allow entirely for local expressions and customs, which leads to the misinterpretation of results (Gladstone et al. 2008; Greenfield, 1997).

Direct translation might achieve linguistic equivalence in a technical sense, but other forms of equivalence, such as the idiomatic or cultural equivalence, might not be captured and meaning might be lost (Gladstone et al. 2008; Greenfield, 1997; Hambleton, 1994; Van de Vijver & Hambleton, 1996). This is because the translation of the test has been found to not take into account the communicative and linguistic practices of the community in which the test is going to be used. This form of translation assumes that the values meanings are transportable and remain the same across cultures (Beaujean, 2015; Greenfield, 1997; Hennig & Kirova, 2012; Kwate, 2001). Therefore, as the ISZSP has been translated to isiZulu, it is vital for it to be assessed not only for the technical and semantic equivalence, but also the cultural relevance of the test items included in it (Erkut, 2010; Mason, 2005; Temple, 2005; Lacroix, 2008).

Furthermore, the participants articulated difficulties with scoring an answer that is perceived right by the tester, while the rubric does not include that answer at all.

#### ERR Extract 28:

Kubuye kube nzima uma ingane inikeza igama elingekho ohlwini lwamagama alindelekile noma impendulo engekho kulezo ezilindelekile kwi *instruction manual*. Ngokufanelekile, kungasho ukuthi ingane izothola u zero (0), noma ngabe impendulo, noma igama ingane elishilo *is correct*. Kodwa mina ngiye ngiyinike *a full score*. Njengakuma subtests *Comprehension and Similarities*. *The rubrics are limiting and at times there is no flexibility and direction to score other correct or appropriate responses that the child might give.*

[It gets difficult when a child gives a word that is not on the list of the expected words or an answer that is not amongst the expected ones in the *instruction manual*. Appropriately, it would mean that the child would get zero (0), even if the answer, even if the word the child said *is correct*. But I usually give them *a full score*. Like in the *Vocabulary, Comprehension and Similarities subtests*. *The rubrics are limiting and at times there is no flexibility and direction to score other correct or appropriate responses that the child might give.*]

The concern raised by the participant here is similar to the above-mentioned concerns, with the exception that the response given by the testee is not included in the list of possible answers. What this participant raised was also evident in the audio-visual data. A few examples are presented below.

#### Video Extract 8: Comprehension Subtest

Psyc: Sizichelelani izimbali? [*Why does one water plants?*]

L10: Ukuze zizokwaz' ukuthi zi... <looks up> zis-supply-e nge oxygen and nazo futhi since ama-plants are living things zizokwz' ukuthi ziphile and produce ukudla kwazo. So if sizinik' amanzi, amanzi also contribute to <looks up> i-functioning yazo nokwenza..., ja<sup>11</sup>, functioning yakho konke okwenzakalayo kwama-plants. [*So that they can... <looks up> they can supply us with oxygen and since the plants are also living things they can survive and produce their own food. So if we give them water, the water also contribute to <looks up> their functioning and to do..., ja, the functioning of everything that happens in plants.*]

The response “so they can supply us with oxygen” is not listed as a possible answer in the ISZSP. The answers listed are only related to the growth and germination of plants; there are no answer options related to how plants can be useful to humans. From the studies of biology and botany, it is well known that plants produce oxygen for humans and animals.

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<sup>11</sup> “Ja” is an Afrikaans word that means “yes”.



It would then make sense to ensure that people water plants so that they (the people) can continue receiving oxygen and live. This finding suggests that the rubric is limited and does not include all possible correct answer options that testees might know.

#### Video Extract 9: Comprehension Subtest

Psyc: Yini kubemyama ebusuku kodwa kukhanye emini? [Why is it dark at night and light during the day?]

L12: Ngoba sizokwazi ukubona futhi sazi isikhathi. [So that we can see and know the time.]

The learner cited in the extract above explained the function of light, which is to allow people to see clearly and tell the time. In addition to clocks and watches, people can tell the time of the day, whether it is morning, noon, or the afternoon, by observing the position of the sun. Therefore it can be argued that the answer given by this learner is correct, but the ISZSP has no score for it.

#### Video Extract 10: Similarities Subtest

Psyc: Usimende – izitini. [cement – bricks.]

Response 1: K'fana ngokuthi ngoba usimende nes'tini [They are similar because cement and a brick] (.) is'tini sakhawe ngosimende [a brick is made out of cement].

Response 2: Usimende ngingasho ukuthi nawo wakha izitini [I can say that cement also makes bricks].

Most learners gave the same answer for this item. They were asked to explain in what ways cement and bricks are similar. They replied that cement makes bricks. In South Africa, cement is used to construct a type of brick that most people refer to as “blocks”. The learners that were assessed as part of this study gave an answer based on what they know and may have observed. Therefore, this answer can be deemed contextually correct. However, it is not included in the ISZSP. In such situations, the participants find themselves awarding either a zero or a full score. This suggests that this tool is permeated with an ideology and concepts that are not relevant for its intended population. This can discriminate against the testees as the ISZSP does not recognize what is contextually relevant to them. The psychologists are forced to assume a position that might present with an ethical dilemma where they have compromised the standardised administration of the ISZSP.

What the participants have reported as ways of trying to remedy the situation is similar to Mkhize's (2004) postulation that psychologists need to have dialogical reflexivity during the assessment process. It is evident that when the participants award scores in this context, they critically engage with utterances embedded in the ISZSP, in themselves as persons, in themselves as psychologists, as well as with utterances embedded in the Zulu child's lifeworld (Mkhize, 2004). In so doing, they allow the assessment process to take on a dialogical nature, even if it is hidden dialogicality, challenge the assumptions that are imbued in the ISZSP, and come to an understanding of the reasons why the testee selected certain utterances in response to the ISZSP (Hennig & Kirova, 2012; Levine, 1997; Mkhize, 2004; Oleś, 2009). However, the ISZSP currently does not allow for its administration, and the entire assessment process, to fully embrace dialogicality.

For some rubrics and scoring criteria, participants have found themselves not knowing how children could get better scores for some of their answers. This is because sometimes children would give answers for some items that participants feel should be awarded full points given the contextual and educational background of the child, but the rubrics of the ISZSP would allow for a score of 1 or 2, not the full score.

ERR Extract 29:

I-subtest ye Comprehension ingenye yamaningi ekumele asinike iziboniso ngokukhula ngokomqondo komntwana. Kepha uthola ukuthi iyacwasa kakhulu ebantwaneni abamnyama ngenxa yokuthi abaningi abantwana bacabanga ngokubaluleka kwezinto ekusebenzisekeni kwazo. Ngamanye amazwi umsebenzi we-*item* ubaluleke kakhulu kune *theoretical as well as philosophical understandings of that item*. Isibonelo, ku *Item* 21 kubuzwa ngokubaluleka kokuya esikoleni. Kulezinsuku ngenxa yokuhlupheka, abantu abaningi bakhetha imfundo ngenxa yamandla ayo okutakula imindeni obishini lwenhlupheko. Akusajwayelekile ukuthi umuntu afundele ulwazi nje kuphela. Kepha i-rubric ye ISZSP ithi uma impendulo yabantwana ithi sifundela ukuthi singahlupheleki, akalitholi iphuzu.

[The Comprehension *subtest* is one of many that are supposed to give us indications about the child's cognitive development. However, you find that it discriminates a lot against Black children because most children think of the importance of things in their usefulness. In other words, the function of an *item* practically is more important than the *theoretical as well as philosophical understandings of that item*. For example, *item* 21 asks about the importance of going to school. These days because of poverty, a lot of people choose education because of its power to rescue their families from the quagmire of poverty. It is now rare that people study for knowledge only. But the ISZSP

*rubric states that if the children's answer says we learn not to be poor, they do not get the point.]*

See also the video extract below:

#### Video Extract 11: Comprehension Subtest

Psyc: Siyongelani imali? [Why do we save money?]

Response 1: Siyongela ukuthi uma kunezidingo, ngoba abazali abaningi benezingane nje, uma seziqeda isikole, uma sebeya e *high school* beyoqala isikole esisha, ukuze bakwazi ukukhokha esikoleni lapha nase UNISA ((University of South Africa)).

[We save it so that if there are needs, because a lot of parents have children, when they have finished school, when they go to *high school* to start at a new school, so that they can be able to pay for school here and at UNISA ((University of South Africa)).]

Response 2: Ukuthi umuntu aye esikoleni, kudingekile ngoba usuke elungisa ikusasa lakhe, naye akhone ukuthi mayesekhulile asebenze, asebenzele umdeni wakhe uma esenawo, nomndeni wakhe wakudala naye mayesenowakhe futhi aphinde awusize akwazi ukuthi asebenze <plays with hands>

[For a person to go to school, it is necessary because he or she is preparing for their future, so that they can work when they are older, work for their family when they have one, and also to help their primary family even when they have their own and work <plays with hands>]

Again, this is an example of how some of the acceptable responses in the ISZSP are not responsive to the context in which the assessed children live. The contextually relevant responses are authored as not scorable in this tool. This reflects the Western supremacy built into the rubric and scoring criteria of the ISZSP (Kwate, 2001). Bell (1994) argued that such scoring criteria are infused with Western assumptions that accentuate metacognition and enhance social/relational distancing in problem solving. Such focus on metacognition in isolation is rather different from the African understanding of cognitive functioning, wherein social referencing is integral to problem solving (Beaujean, 2015; Cocodia, 2014; Grigorenko et al., 2001; Lima et al., 2002; Mokoena, 2013; Putnam & Kilbride, 1980; Sternberg, 2004; Valencia & Suzuki, 2001). Another reported challenge posed by the rubric and scoring criteria relates to the lack of isiZulu words that are equivalent to what the test seeks from the testees.

ERR Extract 30:

Ku-Item 3 we *subtest* ye Similarities, alikho igama esiZulwini elisho ncamashi “i-herbivore” ngaphandle kokusho ukuthi “kudla utshani noma izitshalo”. Kodwa lapha uma i-*testee* isho leyompendulo ithola *1 point not the 3 points* ebekelwe impendulo ethi “*herbivorous animals*”. Lokhu kusabangwa yikho ukuthi imibuzo ibuzwe ngesiZulu kepha izimpendulo zokumaka zibe yisiNgesi.

[In-Item 3 of the Similarities *subtest*, there is no word in isiZulu that states exactly “the herbivore” besides saying that “it eats grass or plants”. But here when the *testee* says that answer he or she gets *1 point not the 3 points* allotted for an answer that says “*herbivorous animals*”. This is still caused by asking questions in isiZulu while answers for scoring are in English.]

Similar to having only English instructions, having answer options written in English with no isiZulu equivalent words is a serious cultural and linguistic challenge, indicating poor standardization if there ever was any (since this knowledge is unknown and unavailable). During the standardization processes of tests, the possible correct responses that go into the final administration and scoring manuals are taken from the norm samples' responses. It has been argued that translated psychological tests that present concepts in only one language and not have their equivalent terms in the target language are culturally and linguistically biased (Bainter & Tollefson, 2003; Beiser & Gotowiec, 2000; ITC, 2010; Ntombela & Mhlongo, 2010; Tzuriel, 2001; Venter, 2000). This thesis argues that since the ISZSP has been found to present this bias, there is a need to put measures in place that would address the reported linguistic and cultural bias.

In the example given by the participant above, the ISZSP manual states that the response “eat grass” is worth 1 point (Landman, 1988, p. 20). This indicates that the ISZSP has adopted the Eurocentric assumptions regarding children's abstract thinking skills. It takes a position that puts emphasis on dichotomy, categorization, and hierarchy in the scoring scheme of the Similarities *subtest* (Kwate, 2001). This means a score of 3 is superior, a score of 2 is better, and a score of 1 reflects a low level of intellectual capacity (Bell, 1994; Kwate, 2001). Another participant reported her observation that the SSAIS-R (which is the revision of the English equivalent of the ISZSP) makes provisions for the scoring of alternative words that the *testees* might give as responses, while the ISZSP does not.

ERR Extract 31:

Ama *testees* iskhathi esiningi athi uma esesho akukhumbulayo kundatshana ye Memory, awasho ncamashi njengokwendaba kodwa ashokuyela ngakhona futhi okufanelekile

endabeni, kodwa okungekho kwi *manual*. Isibonelo nje esincane ukuthi uma ubheka ama-*rubrics* e SSAIS-R ayavuma ukuthi uma ingane ithe *for example* “amadodana” *instead of really giving* amagama awo umnike i-*point* loyomtwana. La ku ISZSP akukho lokho, okwenza kube *unfair* ukuthi i-*testee* uma ishilo ukuthi “ubaba wathatha amadodana akhe amabili kanye nendodakazi yakhe baya ezu” bese ingatholi ama *points* kulokho ngoba ingafakanga amagama.

[Most times when the *testees* say what they remember from the story in *Memory*, they do not say exactly as it is in the story but they say what is closest to and fitting into the story, but which is not in the *manual*. A small example is that when you look at the *rubrics* of the SSAIS-R they allow that if a child said *for example* “sons” *instead of really giving* their names, give that child a *point*. Here with the ISZSP that does not exist, which makes it *unfair* that when the *testee* did say that “the father took his two sons and his daughter to the zoo” and not get *points* for that because he or she did not mention names.]

Below are sample extracts of the participating learners' responses to the Memory subtest, the words in written in bold are the learners' responses that could be accepted as correct synonyms. These words replaced the words in the story, but are not in the manual nor in the scoring rubric:

#### Video Extract 12: Memory Subtest

Response 1: uWilson **wathatha** izingane zakhe, eziwu two **abafana** eyodwa **intombazane**. **Intombazane** yangena mahhala, eyodwa **yomfana yajabuliswa** amabhusesi kodwa yesaba uma esebhonga. **Ubaba** wathengela izingane u *ice-cream*, yena **waphuza** i-*coffee*. Bahamba baya ekhaya ngebhasi lika *four*, unina wajabula kakhulu ebabona.

[Wilson took his children, two **boys** one **girl**. The **girl** entered for free, one of the **boys** was **happy** because of the lions but got scared when they roared. The father bought *ice-cream* for the children, he **drank** *coffee*. They went home in the 4 o'clock bus, the mother was very happy to see them.]

Response 2: **Ubaba** wahamba nengane yakhe encane ena *eight*, babeya e-zoo **beyovakashela khona**. Yena wangena ngo 20 cents yona yangena mahhala. **Masebephakathi**, ingane yathatheka izinkawu **nezilwane** eyazibona e-zoo; wase ubaba wayithengela u-*ice-cream* (.40).

[The **father** left with his young *eight*-year-old child, they went to the zoo **to visit there**. He entered with 20 cents and the child entered for free. **When they were inside**, the child was **excited** by the monkeys and the animals he saw at the zoo; the father then bought *ice-cream* for him (.40)]

The participant quoted in ERR Extract 31 above, points us to the crucial matter that needs urgent attention. As discussed in Chapter 2, the SSAIS-R is the revised version of the SSAIS, which is an equivalent of the NSAIS, which was translated from English to isiXhosa in 1988. The Xhosa version was later translated to isiZulu in 1990 (Landman, 1988a, 1988b; Owen & Taljaard, 1996). The SSAIS-R was published in 1990 (Landman, 1994). This means that the SSAIS-R is more updated than the ISZSP, even though it can be argued that the SSAIS-R is now long overdue for another revision. It would be expected that the ISZSP would be revised shortly after the publication of the SSAIS-R, but that did not happen. As a result, the SSAIS-R has better scoring criteria and a better rubric when compared to the ISZSP.

The findings presented above highlight the challenges experienced by psychologists during the assessment process using the ISZSP owing to the standardised nature of test administration. The tool does not allow for flexibility for the tester and the testee to effectively engage with one another in dialogue in order to achieve a fair measurement of the testee's intellectual functioning. Even when testees demonstrate their intellectual capacity by giving responses that are relevant from their lifeworlds, which would be correct when their contexts are considered, they would be deemed incorrect by the pre-determined responses in the ISZSP. The psychologists find themselves in a position where they violate standardisation rules, which leads to perceived unethical practice.

## **6.7 Conclusion**

This chapter presented findings that highlight what has been viewed and experienced by the participants as challenges when using the ISZSP in its current form. These findings address the first research question of this study. These findings revealed the positions that psychologists have found themselves in, such as that of distancing themselves from the ethical obligation to develop, adapt, and evaluate intelligence tests. Some of the challenges that have been reported stem from the belief that the ISZSP is a tool that is embedded in Western assumptions of what constitutes intelligence, and consequently, how intelligence should be assessed. Additionally, the authoritative voice of the ISZSP is influenced by Western epistemologies that silence Zulu voices and make them subordinate, not allowing for the assessment of isiZulu-speaking children as dialogical beings. This has revealed that cultural sensitivity during the standardized administration of the ISZSP cannot be maintained owing to the construction of some test items and the language in the ISZSP. This affects the standardized administration that is ethically mandated.

The next chapter presents findings that addressed the three remaining research questions.

## CHAPTER 7

### FINDINGS AND DISCUSSION: AN ANTHOLOGY OF VOICES PART II

*Each utterance is filled with echoes and reverberations of other utterances to which it is related by the communality of the sphere of speech communication (Bakhtin, 1986, p. 91).*

#### **7.1 Introduction**

This chapter presents the findings that addressed the research question that explored the perceived challenges experienced by isiZulu-speaking children when they are assessed with the ISZSP. These challenges stem from the use of isiZulu in the test and the language variation within isiZulu itself, which has both high and low variants. Some of the children have become isiZulu-English bilingual speakers, resulting from living in-between cultures. During assessment, they encounter a situation where they are instructed monolingually in isiZulu, and they are expected to respond in isiZulu. Moreover, the translation of the ISZSP took a dictionary approach, which mostly used words that are not from the living, currently spoken language.

Additionally, the findings presented in this chapter address the research question that sought to establish the mechanisms and processes that psychologists adopt to address cultural and linguistic difficulties encountered during the use of the ISZSP. These include the administration of the ISZSP bilingually, and adopting a dynamic approach to assessment. The findings that address the final research question indicate that psychologists allow for the co-construction of the assessment process to take a dialogical shape, and in that way, obtain a full picture of the testees' intellectual functioning.

#### **7.2 Cultural In-Betweenity vis-à-vis Monolingual Assessment**

The language in the ISZSP appears to clash with the current social and regional variations of isiZulu, which presents challenges to the learners during assessment. As bilingual speakers, the testers and the testees often code switch during assessment, in an attempt to address the linguistic hurdles that they encounter. As highlighted in the previous chapter, the ISZSP adhered to the guideline of translating and adapting tests which requires for test administration instructions to be written in both the source language and the target language in order to reduce the effect of unwanted sources of discrepancies (ITC, 2010). However, the challenge is that the ISZSP is meant to be administered only in isiZulu. In South Africa, the practice of bilingual psychological assessment has not been

formalized and there are no existing norms for the bilingual assessment of isiZulu-speaking children. The challenge is that the current generation of isiZulu-speaking children is living in-between cultures, as observed in schooling systems and other environments. The general assumption with psychological assessments is that the children are either English-speaking or isiZulu-speaking, etc. This is problematic because to date, tests are still being published to be administered monolingually, while the target populations are mostly bi/multilingual (Beaujean, 2015; Bethlehem et al., 2003; Levin, 2004; Mkhize, 2013; Oliden & Lizaso, 2014; Posel & Zeller, 2015; Swanepoel, Krüger, 2011). This is not aligned with the obligation to ensure linguistic and cultural appropriateness of psychological tests and the use thereof, as legally enforced by the South African Constitution (Act 108 of 1996) and the Employment Equity Act (DAC, 2003; Radebe, 2010; RSA, 1996, 1998; Van de Vijver & Rothmann, 2004; Visser & Viviers, 2010).

Since a lot of families in KwaZulu-Natal are living in-between cultures, and because of the fluidity of language, isiZulu-speaking children in the province – especially those living and schooling in urban areas – are bilingual and their daily linguistic behaviour features spontaneous bilingualism profoundly (Benjaminson, 2012; Magagula, 2009; Mdlalo, 2013; Mufwene, 2014). Therefore, the rules of standardized assessment, in relation to monolingual administration, do not always meet the linguistic needs of either the psychologists or isiZulu-speaking children. This invokes the need for formalized bilingual assessment of isiZulu-English bilingual children.

ERR Extract 32:

I-ISZSP ayenzi ukuthi *all test takers* akwazi to meet *all the linguistic demands*. Ngithi "onke" ngokuthi *in each test item* kunento ecindezela *i-testee* ekuqondeni okufuneka kuyo, ukuphendula noma ukubeka kahle izimpendulo ngendlela efuna ngayo. Ezinye izingane nakuba zisizwa isiZulu futhi zisikhuluma, azikwazi kodwa ukusifunda; okwenza kube nzima uma sezifika ku Problems ku *Item 16* lasekumele zilandele nazo zifunde ekhadini umbuzo ukuze bezowuhlaziya kahle bawuqonde.

[The ISZSP does not make it possible for *all test takers* to meet *all the linguistic demands*. I say "all" because *in each test item* there is something that ((hinders)) the *testee* in understanding what is required in it, to respond or to formulate the answers well in a manner that it requires. Even though some children can understand isiZulu and they speak it, they cannot read it; which makes it difficult when they get to Problems *Item 16* when they have to follow and read the question from the card so that they can analyse and understand it.]



The participants were asked to provide an evaluation in their expert review reports of how linguistic factors, such as linguistic demands, have a bearing on the use of the ISZSP for Zulu-speaking children. Linguistic demands refer to the number of linguistic skills that are required of testees by tests and subtests of intelligence in terms of speaking, listening comprehension, reading and writing (Cormier, 2012; Cormier, Hansen et al., 2011; Cormier, McGrew et al., 2011). The participants reported that the ISZSP limits the children's ability to demonstrate their linguistic skills and understanding of the language of the ISZSP. The testees are expected to comprehend the instructions that are read to them in isiZulu and to speak in isiZulu throughout the assessment session. Although their mother tongue is isiZulu, they have been found to encounter challenges in meeting the linguistic demands of the ISZSP. A number of children that have been assessed by the participants reportedly speak English mostly and borrow from isiZulu. Often times they do not understand the language of the ISZSP. This is because it is outdated and differs from their regional dialects.

The participant in the extract above reports that some of the testees cannot read isiZulu, although they can speak it and understand it when they hear it. This could reflect the type of schooling that most children who have been assessed by the participants receive. It is highly likely that these children go to English medium or dual medium schools, and they speak English at their homes. At such schools, they are taught isiZulu as a second or third language, or no isiZulu at all. In this case, the schooling system is where children from diverse cultural and linguistic backgrounds meet. However, owing to policies and legislation that govern the schools, the LoLT is not every child's mother tongue (DoE, 1997, 2001, 2002; Heugh, 2002; Posel & Zeller, 2015). Looking at this with a Bakhtinian eye, it amplifies English or Afrikaans voices, and reduces isiZulu voices to being almost mute. It contributes to learners not being able to read and understand isiZulu that is in the ISZSP because it is archaic and at a deeper level than that which is taught in their schools.

One participant observed the use of loanwords in the ISZSP. She reports the following:

ERR Extract 33:

*Kukhona futhi namagama asetshenziwe okucacile ukuthi ayimifakela – abolekiwe kolunye ulimi njengesingisi njengegama "ifulegi" for the flag kwi subtest ye Vocabulary; kanye negama "isitaladi" for "straat" in Afrikaans – "road" in English elikuma items ambalwa. There is little consistency in the standard of language used; it is not clear as to what standards were used in deciding whether to use the "original" isiZulu term or the borrowed language. Ngakho ke ukutolikwa kwe ISZSP akubukeki kungokufanelekile for the population for which the test was designed for. It is further questionable as the*

*evidence of research, which is usually Part I of the test kit, is not provided as part of the package. How are professionals expected ukuthi baqiniseke ukuthi i-test abayisebenzisayo is still useful for the present population research behind the development of the test is not readily available as it should be?*

*[There are also words used which are clearly loanwords – borrowed from another language such as English like the word “ifulegi” for the flag in the Vocabulary subtest; and the word “isitaladi” for “straat” in Afrikaans – “road” in English found in a few items. There is little consistency in the standard of language used; it is not clear as to what standards were used in deciding whether to use the “original” isiZulu term or the borrowed language. Therefore, the translation of the ISZSP does not seem appropriate for the population for which the test was designed for. It is further questionable as the evidence of research, which is usually Part I of the test kit, is not provided as part of the package. How are professionals expected to ensure that the test they are using is still useful for the present population when the research behind the development of the test is not readily available as it should be?]*

Owing to language contact, isiZulu features interference from English and Afrikaans in the form of lexical borrowings that results in code switching, code-mixing (lexical borrowing) and the use of loan words (Magagula, 2009; Manfredi et al., 2015; Mokgwathi, 2011; Mufwene, 2014; Ncoko et al., 2000; Ndimande-Hlongwa & Ndebele, 2014; Ngcobo, 2013). The substantiation of lexical borrowing is testament to the ongoing alterations and adaptation of isiZulu language to new situations (Nkabinde, 2003). It seems as if the influence of language contact could not be escaped during the translation of the ISZSP. The participant quoted above strongly feels that, with the inclusion of loanwords, the standard of language that was used is inconsistent and questionable. She asserts that the translation of the ISZSP is inappropriate. She also presents herself and the voices of fellow psychologists as forced into an ethically tense position where the unavailability of Manual I of the test introduces doubt in terms of the tool's usefulness for the current population. The question she raises seems to challenge super addressees who publish and distribute the ISZSP for failing to provide the necessary documentation that would eliminate doubts in their practice.

The participant below has similar views:

ERR Extract 34:

Angicabangi ukuthi ukuhunyushwa kwalelithuluzi kungokufanelekile. Ikakhulu ezikhathini zamanje ngoba abantu abaningi, ngenxa yentuthuko nempucuzeko, ba exposed

ezinhlelweni eziningi ezibadinga ukuthi bafundiswe futhi basebenzise isiNgisi noma isiZulu esingajulile kakhulu. Kule *test*, kukhona amagama angaziwa ngisho abantu abavela ezigodini lapho isiZulu sihlonishwa khona futhi lapho sisetshenziswa ngendlela esikhulunywa ngayo namhlanje. Angisaphathi ke izingane zethu, ngisho nezinhlelo abazibuka kumabonakude ziyisiNgisi; uma kungenjalo, izinhlelo zixuba isiNgisi nezinye izilimi. Abanengi babo isiZulu basifunda ngoba siwulimi olukhulunywa ekhaya, naso leso esikhulunywa ekhaya asijulile.

[I do not think that the translation of this tool is appropriate. Especially in these times now because many people, due to development and civilization ((Westernization)), are exposed a lot to programmes that need them to be taught in and to use English or isiZulu that is not too deep. In this *test*, there are words that are unknown to people who are from valleys where isiZulu is respected and where it is used in a manner in which it is spoken today. Not to mention our children, even the programmes they watch on television are in English; if it is not so, the programmes mix English with other languages. Most of them learn isiZulu because it is the language spoken at home, even that which is spoken at home is not deep.]

The above finding refers to recent events and development in terms of language. From this participant's view, the ISZSP is currently positioned within a conventional school of thought, which sees language as fixed, whereas language is fluid and evolves over time. Thus, the ISZSP contains archaic language. She also introduces the role of the media in language change, which had resulted in cultural in-betweenity and the use of isiZulu that is not deep, both of which have implications for psychological assessment. This finding is synonymous with the findings of previous research, which revealed that contextual factors and standards of living contribute to the dilution of deep isiZulu, i.e., *isiZulu phaqa* (Magagula, 2009; Mkhize, 2013; Ngcobo, 2010, 2013; Zungu, 1995). This finding also corroborates previous studies that found that modernisation and high exposure to English and Afrikaans have resulted in daily-spoken "non-standard" diluted isiZulu (Deumert, 2005; Magagula, 2009; Martin, 1996; Mesthrie, 2002; Ngcobo, 2013).

Although isiZulu-speaking children have been exposed to diverse cultures in terms of language contact and styles of living, the participants indicated that children are not familiar with most words in the ISZSP.

ERR Extract 35:

Yize ngezikhathi ezithile kusetshenziswe amagama ajwayelekile namagama abolekwe kwisiNgisi, *this test seems to use a form of language that is complex for persons living in urban areas, semi-rural areas and to some extent, rural areas. It almost seems as though*

*a dictionary form of terms was used, in some instances, and not the usual spoken language. Lokhu kwenza kube nzima ezinganeni ezihlolwayo to meet the linguistic demands of the test. Izingane esengike ngazihlola ngale test zikhuluma kakhulu isiNgesi, bese zifaka kancane isiZulu lapha nalaphaya. Ngakho, kunzima ukuthi ngingaphawula kakhulu ngobuciko nobungoti bazo bokukhuluma ulimi lwesiZulu. Isikhathi esiningi azilugondisisi kahle ulimi lwe ISZSP uma lusetshenziswa lunjengoba lunjalo njengamanje.*

*[Even though sometimes words that are familiar and words that are borrowed from English are used, this test seems to use a form of language that is complex for persons living in urban areas, semi-rural areas and to some extent, rural areas. It almost seems as though a dictionary form of terms was used, in some instances, and not the usual spoken language. This makes it difficult for the assessed children to meet the linguistic demands of the test. The children that I have assessed using this test speak English mostly, then they add isiZulu a little bit here and there. Therefore, it is hard for me to comment a lot about their art and skill ((proficiency)) of speaking isiZulu language. Most of the time they do not understand the language of the ISZSP well when it is used as it is currently.]*

#### ERR Extract 36:

Ngicabanga ukuthi ukuhlolwa kunzima noma ngabe kusetshenziswa luphi ulimi. Abafundi abakhuluma isiZulu bayaba nenkinga yokuthi bayasizwa isiZulu, kodwa babe nobunzima ukuphendula ngaso isiZulu. Isikhathi esiningi *they code switch* bazame ukuthi bangitshela izimpendulo zabo ngesiNgesi, bese ngibuyisela esiZulwini lokho abakushoyo. Bavame ukuthi uma bekhuluma usuku nosuku, baxube isiZulu nesiNgesi. Abakwazi ukukhuluma isiZulu phaqa sisodwa nje. Lokho *kuyi-challenge* kimina nakubona ngokufana. Enye *i-challenge* kubafundi ukuthi uma sesikhuluma isiZulu kuphela bazizwa sengathi lena *yi-test* yesiZulu, hhayi *eye-intelligence*, manje kugcine sekubathusa. Okuye kusize ukusebenzisa kokubili isiZulu nesiNgesi.

*[I think that being assessed is hard no matter what language is used. Learners who speak isiZulu have the problem that they do hear isiZulu, but they experience difficulty in responding in isiZulu. Most times they *they code switch* and try to tell me their answers in English, then I translate what they say to isiZulu. Usually when they converse day-to-day, they mix isiZulu with English. They cannot speak pure isiZulu only. This is a *challenge* to me and to them alike. Another *challenge* for learners is that when we speak only in isiZulu they feel like this is a *test* for ((proficiency in)) isiZulu not for *intelligence*, now it ends up frightening them. What helps is to use both isiZulu and English.]*

The complexity of some of the words in the ISZSP is reported to be experienced in a similar manner by testees whether they reside in urban, semi-rural or rural areas. The participant above attributes this to the use of what she refers to as "the dictionary form of terms"

instead of the words in the spoken language. Careful examination of the isiZulu employed in the ISZSP confirms this. The English-to-Zulu dictionary is one of the dictionaries of the African languages that were produced by early Christian missionaries. Such dictionaries tend to have limited descriptions of various aspects of customary life or culture of the Zulus (Nkabinde, 2003). The dictionary approach to translation is not context based: it relies on pre-given words and in many cases, such words ignore regional variations in spoken isiZulu, leading to the being experienced as difficult by the learners. This approach uses the standard language that is usually based on a prestigious, elitist variant or dialect of a language (Nkabinde, 2003). It does not accommodate regional or social variations of isiZulu dialects. It also does not explain the figurative use of isiZulu such as in idioms, proverbs, metaphors, simile, hyperbole and other figures of speech (Nkabinde, 2003), which would require some knowledge of the culture, history, and traditions of the Zulus.

The Bakhtinian view of language negates the dictionary form of translation. Its point of departure is that the meaning of words does not reside in the language as captured in dictionaries, but in the living language (Bakhtin, 1981, 1986; Shands & Mikrut, 2014). The living language is a form of language that is spoken and used in daily social interactions; its meaning is drawn from the speakers' lifeworlds. Therefore, word meaning is derived from the context in which the words are used (Bakhtin, 1981). This is lost or non-existent in some parts of the ISZSP. Moreover, the participants in ERR Extracts 35 and 36 indicate that the children that they have assessed with the ISZSP in their practice code switch between English and isiZulu, with isiZulu being used minimally. This represents another dimension of power between these two languages, and might mean that English is the language that these children are confident in and may prefer to use over isiZulu. This power dimension is also evident in some Black African communities, where there is an association of intelligence with the proficiency and fluency in English (Mashele, 2016). It is a form of colonization that ascribes value to European languages as superior to African indigenous languages (Bakhtin, 1981, 1986; Ballard, 1989; Posel & Zeller, 2015). It is a widespread phenomenon in South African schools, churches, townships and places of social gatherings where Black Africans attempt to sound intelligent by speaking English (Mashele, 2016).

Notably, in the above extracts, there is no indication of ownership for selecting a test that seems to be unsuitable for use with the testees. The participants make no reference to the fact that they have not chosen an appropriate test given all the identified issues in the ISZSP. They indirectly put the blame on on the test and its archaic words. As psychologists, they have an ethical obligation to select tests that would be culturally and linguistically

appropriate for use with their clients (HPCSA, 2006). However, when the referral sources and/or the children's parents have requested for the assessment to be conducted in isiZulu, the ISZSP is the only tool in isiZulu for children aged 9 to 19 years, 11 months. The psychologists would have to use the ISZSP because, ethically, they cannot deny clients a service. However, it is also the psychologists' responsibility to establish the language proficiency and preference of the testees before the assessment process begins. Thus, when linguistic challenges are encountered when using the ISZSP, the psychologists must explain this to the referral sources and/or parents, and choose another test that would be appropriate (HPCSA, 2006). The participants seem to shy away from this ethical responsibility. The following video extract demonstrates how one learner code switched from isiZulu to English:

Video Extract 13: Comprehension Subtest:

Psyc: Yini kuba mnyama ebusuku kodwa kukhanye emini? [Why is it dark at night and light during the day?]

L08: Ebusuku isikhathi sokulala; emini kuyasetshenzwa. [At night it is time for sleep; during the day work activities take place.]

Psyc: <looks at L08> <smiles> [repeats question] Yini kube mnyama ebusuku kodwa kukhanye emini? [Why is it dark at night and light during the day?]

L08: <looks up> Emini, *uhm* <looks at table> abant' abaningi basuke be-busy, to..., people are getting on with their lives, doing what they're doing <looks at Psyc> <smiles> and eb's- emini k'suke k'khanya, <looks out the window> <looks at Psyc> usuke une-opportunity yokuthi wenze what you want to do <looks up> and eb'suku... eb'suku k'suke, like <looks down> k'khombis' ukuthi kumele ube sendaweni evikelekile <raises eyebrows> since kunob'gebengu and stuff, so ja, futhi k'suk' kus'khombis' ukuthi <smiles> sekuyis'kath' sokuthi k'lalwe or kwenziwe izint' ezenziw' ebusuku <smiles> <shrugs shoulders> <looks up> <shakes head> <frown lips> ja, so (.4) <looks at Psyc>.

[<looks up> During the day, *uhm* <looks at table> a lot of people are busy, to..., people are getting on with their lives, doing what they're doing <looks at Psyc> <smiles> and at night- during the day there is light, <looks out the window> <looks at Psyc> you have the opportunity to do what you want to do <looks up> and at night... at night it is, like <looks down> it indicates that you must be in a safe place <raises eyebrows> since there is crime and stuff, so ja, and it also indicates that <smiles> it is time for sleeping or for doing things that are done at night <smiles> <shrugs shoulders> <looks up> <shakes head> <frown lips> ja, so (4) <looks at Psyc>.]

The function of code switching during psychological assessment appears to be for the purposes of responding to the assessment tasks (by the testee) and for verification of the responses (by the tester). This brings our attention to the implications of code switching for psychological assessment. Previous studies have cautioned that bilingualism can impinge on the assessment process because the assessed child may not be accustomed to monolingual conversing, and thus may not benefit from monolingual assessment (Bethlehem et al., 2003; Levin, 2004; Millett, 2010; Mkhize, 2013; Oriden & Lizaso, 2014; Swanepoel, Krüger, 2011). This has to be considered cautiously, as all psychological processes have to be fair and in the best interest of the testee (APA, 2010; HPCSA 2006). The language of the ISZSP has put psychologists and the testees in a position where they have turned the assessment process (using this tool) into a bilingual act, while the construction of the ISZSP demands for it to be a standardised monolingual act.

This finding highlights the challenge that the testees face when they seem unable to meet the linguistic demands that are required to perform well in the ISZSP. This is reportedly not owing to their incapacity, but to the cultural and linguistic bias of the ISZSP. Literature points out that culturally and linguistically biased tests are comprised of components that affect the performance of test-takers (Cormier, Hansen et al., 2011; Cormier, McGrew et al., 2011; Reynolds, 2000; Rhodes et al., 2005; Oriden & Lizaso, 2014). This in turn, would contribute to scores that do not accurately reflect the testees' intellectual capacity (Bethlehem et al., 2003; Millett, 2010; Mushquash & Bova, 2007; Reynolds, 2000). The findings of this study support the supposition by Cormier, Hasen et al. (2011) that culturally and linguistically inappropriate test items have a debilitating influence on the expressive and receptive language demands for intellectual assessment tools.

In addition to the use of loanwords and code switching, acculturation that results from cultural in-betweenity contributes to some challenges that isiZulu-speaking children experience during the administration of the ISZSP. An example follows in the extract below:

ERR Extract 37:

Ezinye izingane, ikakhulu lezi ezifunda ezikoleni ezisebenzisa isiNgisi njengolimi lokufundisa, azikwazi ukubala ngesiZulu. So amagama athi ezimbili, amane, and ayisithupha, izingane aziwaqondi, bese zinikeza izimpendulo ezi *wrong*. Kwesinye isikhathi zinika izimpendulo zezi *number* ngesiNgisi. Mina ngiye ngisebenzise isiNgisi njengokuthi "eziwu *two*", "okuwu *three*", "awu *four*", and "awu *six*". Ngenxa ye *acculturation*, amanye amagama esiNgisi nawesiBhunu sesawaboleka saze sawenza

abangawethu, now it is almost like they are part of isiZulu. Izingane zazi ukuthi uma zithi "six" zisakhuluma sona isiZulu. Azisazi isithupha, ishumi, isishiyagalombili, kanjalo kanjalo. Ziyaxakeka uma ngithi azingitshele u five ngesiZulu.

[Some children, especially those that learn in schools that use English as a medium of instruction, they do not know how to count in isiZulu. So words like ezimbili (two), amane (four), and ayisithupha (six), children do not understand them, and they give wrong answers. Sometimes they give answers of numbers in English. I usually use English and say "eziwu two", "okuwu three", "awu four", and "awu six". Because of acculturation, we have borrowed some English and Afrikaans words and made them our own, now it is almost like they are part of isiZulu. Children know that if they say "six" they are still speaking isiZulu. They do not know isithupha (six), ishumi (ten), isishiyagalombili (eight), etcetera, etcetera. They get confused if I say they must tell me five in isiZulu.]

The video extract below illustrates the issue explained by the participant quoted above.

#### Video Extract 14: Problems Subtest

- Psyc: uChristina uneminyaka emine manje. [Christina is four years old now.]  
Ngonyaka odlule wayeneminyaka emingaki? [How old was she last year?]  
<<starts stopwatch>>
- L10: Emine? [Four?] That's, that's six, right? <looks at Psyc>
- Psyc: <<smiles>>
- L10: (.11) <raises yebrows> <mumbles> (.6) <shakes head> Six? <shakes head> (.9)  
<mumbles>
- Psyc: <<looks at L10>> ((impatient expression))
- L10: <looks at Psyc> Three? Maybe three. Emine? [Four?] That's four? Six?°° (.4) Ja, three, maybe three.

Owing to the dynamics of acculturation, isiZulu-speaking children and isiZulu-speaking psychologists are reported to have become accustomed to communicate through code switching and lexical borrowing. The participants attributed this to the evolving nature of language into diverse dialects. This finding is similar to what has been discovered by previous research – that the fluidity of isiZulu has allowed for bilingualism and high levels of acculturation, lexical borrowing and code switching. This leads to the change of lexical and morphological structures of isiZulu, and to the institutionalization of loan words into the isiZulu corpus (Magagula, 2009; Mokgwathi, 2011; Ndimande-Hlongwa & Ndebele, 2014; Ngcobo, 2013). Hence, isiZulu-speaking bilinguals tend to use loan words as though they are part of isiZulu language.



### 7.3 Language Variation within isiZulu: The Need for Regional Norms

In addition to the above accounts of challenges reported by the participants, the expert review reports revealed some of the observed challenges encountered by isiZulu-speaking children during the administration of the ISZSP that include the regional variations of isiZulu. In all of the expert review reports, participants expressed their concerns regarding the existing gap between the isiZulu used in the ISZSP and the evolving dialects of the psychologist and of the children being assessed.

ERR Extract 38:

Inkinga nge-ISZSP kwaba ukuthatha i-test eyayi adapted from overseas itolikelwe kwisiZulu ngaphandle kokuyihlola kahle for the isiZulu-speaking population. Ukuba kwasekuqaleni lelithuluzi laba normed by collecting large amounts of data and comparing age and grade groups of the isiZulu-speaking South African population, kwakuyoqinisekisa ukuthi ulimi olusetshenziswe kwi ISZSP lufanelekile for most isiZulu-speaking individuals. Ngithi "most" ngoba I am considering the fact that akwanele ukuhumusha kususelwe kwinxenye nje yabantu abavela endaweni eyodwa ngoba, njengoba sengichazile kwasekuqaleni, isiZulu sihlukile ngokwezindawo nangokwezigodi. Kodwa asazi ukuthi ngenkathi lihunyushwa, kwacashunwa bani futhi kuyiphi indawo. Leyomininingwane yayiyosiza kakhulu ukuze sazi ukuthi le test inesiZulu, for example, sakwa Nongoma. Manje isiZulu esikule test is not consistent, and it is ambiguous. Abanye bangasithola si- appropriate, kodwa from my experience, it is mostly inappropriate for all isiZulu-speaking children I have worked with.

[The problem with the ISZSP was to take a test that was adapted from overseas and translate it to isiZulu without evaluating it properly for the isiZulu-speaking population. If in the very beginning this tool was normed by collecting large amounts of data and comparing age and grade groups of the isiZulu-speaking South African population, it would have ensured that the language used in the ISZSP is appropriate for most isiZulu-speaking individuals. I say "most" because I am considering the fact that it is not enough to translate involving just a proportion of the population from only one area because, as I have explained, isiZulu differs by area and by valley. But we do not know that when it was translated, who was sampled and from which area. That information would help greatly so that we would know that this test has isiZulu, for example, of Nongoma. Now isiZulu in this test is not consistent, and it is ambiguous. Others may find it appropriate, but from my experience, it is mostly inappropriate for all isiZulu-speaking children I have worked with.]

The participant above suggests that norms are needed for rural and urban children when developing intelligence tests. Regrettably, details regarding the norming and standardization of the ISZSP were not available at the time of completion of this study. Therefore, I could not verify who the norms for the ISZSP were, as well as how and where they were sampled. Test developers and publishers are obliged to provide full details regarding the translation and the norming process that was followed during test development and/or adaptation; and to make the evidence available that the content of test items and stimulus materials are familiar to all intended populations (ITC, 2010). There is no documentation of this evidence for the ISZSP. Thus, I am inclined to argue that this finding indicates that some of the guidelines for translating and adapting psychological tests were not adhered to during the construction of the ISZSP because not all members of the population intended for the ISZSP are familiar with all its test items. This finding raises concerns as psychologists are obliged to evaluate translated psychological tests every decade (APA, 2010; HPCSA, 2006; ITC, 2013). Conducting research which would aim to ensure the relevance of the ISZSP would be scientifically valuable and would aid in keeping to standards that require psychologists to evaluate tests by means of empirical studies (Bornman et al., 2010; Foxcroft & Roodt, 2009; ITC, 2013).

The following extracts emphasize the gap between isiZulu in the ISZSP and regional isiZulu dialects.

ERR Extract 39:

isiZulu sithi asihluke kancane kwezinye izilimi ngoba *it is not as universal as English*. Kungani ngisho njalo? Isibonelo nje esiseduze siwukuthi: isiZulu esikhulunywa eThekwini sihluke kakhulu nesiZulu esikhulunywa eGoli. eMgungundlovu nje uwodwa, isiZulu esikhulunywa ngezindawo nangokuhlukana kwezigodi sihlukile, ngokuthi indawo nendawo ihamba ngezigodi. IsiZulu esikhulunywa umuntu ovela eSwayimane sihlukile kunesiZulu somuntu ovela eMbali Township. *A good example would be the word: goduka, umuntu waseMgungundlovu uma eya nje la eduze uthi uyagoduka, kepha umuntu ovela eNewcastle uma eya eduze uthi ngisahamba; uma eya kude kakhuku uthi ngiyagoduka. Another example would be the fruit pear; abanye bathi ipheya whereas in other places bangathi ipiyera abanye iganandoda.* Kuningi nje esingakuveza okungabonisa ukuhluka kwalolumi.

[isiZulu is different from other languages because *it is not as universal as English*. Why do I say so? A closest example is that: isiZulu spoken in Durban (eThekwini) is very different to isiZulu spoken in Johannesburg (eGoli). In uMgungundlovu alone, isiZulu spoken in areas and different valleys is diverse, in that each area is stratified by valleys. IsiZulu that

is spoken by someone from Swayimane is different to isiZulu of a person from iMbali Township. A good example would be the word: goduka ((leave)), when a person from uMgungundlovu is going to a place that is just nearby he or she says uyagoduka ((she is leaving)), but when a person from Newcastle is going to a nearby place he or she says ngisahamba ((I am going)); if he or she is going very far away he or she says ngiyagoduka ((I am leaving)). Another example would be the fruit pear; other people say ipheya whereas in other places they can say ipiyera others iganandoda. There is a lot that we can identify that shows the diversity of this language.]

#### ERR Extract 40:

isiZulu esisetshenzisiwe kwi ISZSP siyadida; kukhona amagama a-complex okulindeleke ukuthi i-psychologist nengane ehlohlwayo bawazi. Kukhona ama-subtest okusetshenzisiwe khona isiZulu sakudala impela, *the archaic* isiZulu, kanti inkinga ukuthi noma singamaZulu, siqhamuka *from different contexts with different dialects*. So, uthola ukuthi i-ISZSP inamagama asetshenzisiwe esingawazi noma esingajwayele ukuwasebenzisa uma sikhuluma noma sizixoxela nje.

[isiZulu that is used in the ISZSP is confusing; there are complex words which the psychologist and the child that is being assessed are expected to know. There are subtests in which the ancient isiZulu is used, *the archaic* isiZulu, and the problem is that even though we are Zulus, we come *from different contexts with different dialects*. So, you find that the ISZSP has words used in it that we do not know or we are not accustomed to use when we talk or are just conversing.]

The assumption of the universality of language may be owing to the hegemony of English in South African education, as well as in market, economic and political contexts (Alexander, 2011). This domination of English came about as a result of colonialism and, later, apartheid, which contributed to the reduction of the cultural capital of indigenous languages in South Africa (Alexander, 2003, 2011). This led to the acceptance of English as a “universal” language in South Africa. For example, evidence of this can be seen in some South African education policies, which have attempted to remedy the injustices of colonialism and apartheid. These are policies such as the Language in Education Policy, the Language Policy Framework and the Language Policy for Higher Education (discussed in Chapter 3) (CHE, 2001; DoE, 1997, 2001, 2002; Heugh, 2002). These policies allow for mother-tongue instruction in the Foundation Phase of education, but mandate the use of English as the LoLT from the Intermediate Phase of education. Although policy calls for bilingual instruction in higher education, English is still maintained as the primary LoLT (Heugh, 2002; Posel & Zeller, 2015; Rudwick, 2008).

However, universality of a language cannot be entirely asserted. From a Bakhtinian standpoint, language is not universal, but stratified into many voices and variations, i.e., speech genres, which can be social, political, cultural, professional, etc. (Akhutina, 2003; Bakhtin, 1981; Fonseka, 2014; Ishiguro, 2010; Mandelker, 1995; Holquist, 2009; Rojo, 2009; Sullivan, 2012). Furthermore, each language is characterized by diglossia (internal language variation) and heteroglossia (the qualities of a language that are extralinguistic, but common to all languages) (Bakhtin, 1981; Ferguson, 1959; Holmes, 1992; Li, 2004; Magagula, 2009; Myers-Scotton, 2002, 2006; So, 1989; Wei, 2007; Wright, 2008). This can thus be said for isiZulu. IsiZulu is diglossic as it has distinct varieties within itself.

These varieties stem from regional distinctions of isiZulu; and they depend on the social functions of communication and various communication subsystems comprising of dialects, styles, jargon, etc., of the members of the isiZulu speech community (Ferguson, 1959; Gumperz, 1964; Krysin, 1979; So, 1989; Wright, 2008). The first variety is referred to as High (H) variety and can be equated with the standard dialect used in selected formal settings (e.g., work, school, books, church, meetings, radio stations, newspapers). The other is referred to as a Low (L) variety, which is non-standard and used in everyday conversation in non-formal domains (home, friendships) (Ferguson, 1959; Gumperz, 1964, 1982; Holmes, 1992; Krysin, 1979; Li, 2004; Wei, 2007).

The heteroglossic characteristics of a language, such as isiZulu, include extralinguistic qualities such as the identity of the speaker, affect, previous statements (utterances) by others, and ideological positioning (Bakhtin, 1981; Fonseka, 2014). A language is therefore incapable of universality and neutrality because every word is inextricably bound to the context in which it exists (Bakhtin, 1981; Holquist, 2002, 2014; Wertsch, 1990). Discourse in all speech genres is mixed through and through with heteroglossia and polyphony (Bakhtin, 1981). This stands true for isiZulu as a language. It is characterized by heteroglossia that represents a diversity of voices, styles of discourse, and points of view. Communication is thus constructed in terms of utterances and ideas that emerge as appropriated expressions formed of words belonging to a larger isiZulu speech community. The existence of a larger speech community shapes speech acts and produces them polyphonically – incorporating many voices, styles, references, and assumptions that are not of one's own (Bakhtin, 1981; Fonseka, 2014; Hermans, 2001a, 2002, 2003; Mkhize, 2005; Mortimer, 2005; Samuelson, 2009).

From what the participants express above, it can be deduced that the ISZSP currently does not account for the diglossic and heteroglossic nature of isiZulu. The ISZSP was authored from a single rigid perspective that does not include all current regional dialects, as well as all high and low varieties of isiZulu. It also limits the testees' spheres of communication by not allowing flexibility to draw from a variety of utterances in isiZulu speech community. This then leads to "confusion" brought about by the use of "complex words", which both the psychologist and the assessed child are assumed to know. Not knowing the word that has been uttered introduces a hurdle in dialogue. It makes it difficult for the testee to consult their sphere of communication as they would not know what it refers to. This in turn, would lead to the child obtaining an IQ score that does not fully reflect their intellectual capacity. Similarly, another participant stated:

ERR Extract 41:

*The nature of the language from one area may not be the same for a learner who grew up or comes from a different area, as words and references to certain incidents or items are different in different areas. Isibonelo, ngokwe subtest ye-Similarities, ku Item 4, abantu abavela endaweni ethile bangathi "isipedi" yi "fosholo" and vice versa. Futhi both words are borrowed from the English language (shovel and spade), even the other alternative "ihalavu" is borrowed from the Afrikaans language. Abantu abavela kwizifundazwe ezahlukene zaKwaZulu-Natal bangasebenzisa noma iliphi ukusho into eyodwa: a spade.*

*[The nature of the language from one area may not be the same for a learner who grew up or comes from a different area, as words and references to certain incidents or items are different in different areas. For example, with reference to the Similarities subtest, for Item 4, people from a particular area may refer to "isipedi" ((spade)) as "ifosholo" ((shovel)) and vice versa. And both words are borrowed from the English language, even the other alternative "ihalavu" ((graaf)) is borrowed from the Afrikaans language. People from different regions of KwaZulu-Natal would use either one or the other to refer to the same object, a spade.]*

The participants also refer to the "nature" of language, i.e., the ethnology of language. This draws attention to aspects of language such as its functions, meanings, variants and contexts. The participants emphasise that the language in the ISZSP is different when compared to the spoken isiZulu of the present time. This means that, as with all languages, isiZulu has evolved and there has been a shift in its usage since the time the ISZSP was published, but this test has remained the same. Therefore, children that are assessed currently with the ISZSP do not speak isiZulu that is exactly the same as isiZulu of the ISZSP. As isiZulu has various dialects, it happens that psychologists, and children being assessed,

find that they are not familiar with the words that are used. The participants have found that in most parts, the standard of the language used in the test is perplexing and inconsistent. In some parts, the test instructions and items use words that are relevant to the current spoken isiZulu language, while there are loan words and items that use antiquated isiZulu language, without including alternative words or synonyms from the various dialects to accommodate children coming from various Zulu regions and valleys. Thus, it has been found that, stemming immensely from its translation, the language of the ISZSP does not take into consideration the context or environment where different dialects may exist. It is for such reasons that the international standards of test use and those of translating tests require the tests and norms to be revised regularly (ITC 2010, 2013).

isiZulu-speaking children have also been observed to experience difficulties when some of the utterances in the ISZSP refer to a word with two or more meanings. This is different to the problem arising from homonyms, discussed in Chapter 6 above. The participants here refer to words or phrases, that are not spelled or pronounced like other words, but have two or more meanings. The testees give their answers according to what they understand to be correct at the time of the assessment, which might not be the correct answer according to the ISZSP. One example referred to in the extract below is found in Item 3 of the Comprehension subtest, which asks: “*Yini okumele uyenze ngaphambi kokuba unqamule umgwaqo?*” [*What should you do before crossing the street?*] (Landman, 1988, p. 9).

#### ERR Extract 42:

Amanye amagama asetshenziwe angaba nezincazelo ezimbili, okwenza kwesinye isikhathi izingane ezincane zingaqondi kahle ukuthi ngabe umbuzo ufunani. Bese ziphendula ngalokho ezicabanga ukuthi kuyikho, kanti akusikho ngokwe ISZSP. Isibonelo, kwi *subtest* ye Comprehension *Item 3* kusetshenziswe i-*phrase* ethi unqamule umgwaqo. Izingane ezisencane ziye zidideke bese ngithi “uwele umgwaqo” – okujwayelekile uma sikhuluma – bese ziyaqondisisa izingane. Igama elithi unqamule, ezinye izingane zazi ukuthi lichaza ukusika: *cutting*, hhayi ukuwela: *crossing*.

[Some words that are used could have two meanings, which sometimes makes younger children not understand well what the question requires. Then they answer with what they think is, whereas according to the ISZSP it is not. An example, in the Comprehension *subtest Item 3* the *phrase* that states unqamule umgwaqo ((cross the street)) is used. Younger children often get confused and then I would say “uwele umgwaqo” ((cross the street)) – which is familiar when we converse – and then the

children understand well. The word unqamule, some children know it to mean ukusika: *cutting*, not ukuwela: *crossing*.]

As some words have two (or more) meanings, the testee's ability to understand the meaning of the word in its context becomes very crucial. As discussed above, meaning of the word does indeed depend on the context in which it exists (Bakhtin, 1981; Holquist, 2014; Wertsch, 1990). The challenge with the ISZSP is that for most test items, it does not include alternative words that can be used in particular contexts. Some of the words used may therefore be confusing to some test takers; this would lead to them obtaining a low score that would compute to a low IQ. This also leads the tester to replace the unknown words with more familiar words, which makes them deviate from the standardised administration of the ISZSP. The expert review reports also identified a number of Zulu words in the ISZSP that children have struggled with or words that children do not know. This depends on the area from which children reside and/or learn – whether it is an urban or rural area, or an isiZulu or English medium school.

ERR Extract 43:

Kube igama “ummango” leligama engikunakile ngalo *in my administration of the test* ukuthi laziwa yizingane ezihlala ezindaweni zasemakhaya nalo futhi lihluka ngezindawo; ezindaweni eziningi laziwa ngokuthi “umehlelo”. *With the word “izikhali” isikhathi esiningi leligama lisetshenziswa uma kukhulunywa ngama weapons, kanti ku ISZSP ngesiNgesi babhale ukuthi “tools”. Ama tools ngesiZulu kuthiwa “amathuluzi”.*

[Then it is the word “ummango” what I have noticed with this word *in my administration of the test* is that it is known by children who reside in rural areas also it differs by area; in a lot of areas it is known as “umehlelo”. *With the word “izikhali” most times this word is used when there is talk of weapons, whereas in the ISZSP in English it is written as “tools”. The tools in isiZulu are called “amathuluzi”.*]

ERR Extract 44:

Ku card 3 we Vocabulary sinagama elithi “umphangi”. Izingane eziningi zisebenzisa “isigebengu” noma “isela” ukuchaza a robber. Bese kuthi *sometimes we use the same word to describe one thing. For example, a champion and a victor* sithi “umnqobi”, leligama elithi “ingqwele” izingane azilazi; *you rarely hear it being used by isiZulu-speaking individuals especially on a day to day basis, ungaze mhlawumbe ulizwe kubasakazi kakhulukazi bemidlalo kumabonakude noma emsakazweni.*

[In card 3 of Vocabulary we have a word that says “umphangi”. A lot of children use “isigebengu” or “isela” to describe a robber. And then *sometimes we use the same word to describe one thing. For example, a champion and a victor we say is “umnqobi”,*



children do not know the word that states "ingqwele"; you rarely hear it being used by isiZulu-speaking individuals especially on a day to day basis, you would maybe hear it from announcers mainly for sports on the television or on radio.]

An interesting finding is that some of the words in the ISZSP are known and understood by children residing in rural areas, while children from other areas do not know them. This confirms the findings from previous research that indicate that in the province of KwaZulu-Natal, the standard isiZulu (*isiZulu phaqa*) is spoken mostly in the rural areas, while non-standard isiZulu is spoken in urban and township areas (Calteaux, 1996; Cook, 2013; Deumert, 2005; Magagula, 2009; Martin, 1996; Mesthrie, 2002; Mkhize, 2013; Ngcobo, 2013; Zungu, 1995). For example, the word "*ingqwele*" would be well-known by some children from rural areas, where, amongst the herdboys it is mostly used to refer to a winner in a stick-fighting competition. This finding also highlights the regional variations of isiZulu; with residents in the rural areas are likely to have kept the standard isiZulu words, while in the urban areas the language has been modified to suit urban needs (Cook, 2013; Kubheka, 1979; Magagula, 2009; Ngcobo, 2013). The ISZSP does not seem to cater for these language variations.

ERR Extract 45:

Igama elithi "isithabathaba" ngokujwayelekile laziwa lisho noma lichaza into enkulu kakhulu, njengomuzi omkhulu – "isithabathaba sendlu", kanti kwi ISZSP lisho i-expanse (a wide continuous area of something – like a plane field or a forest). The direct translation of "expanse" to isiZulu is "umkhathi". Negama elithi "ukuselwa" alaziwa. Uma ngilisho, children think of "ubusela" which is "theft", and then they ask "ubusela?"

[The word that says "isithabathaba" usually is known to mean or to explain something very big, like a huge house – "isithabathaba sendlu", whereas in the ISZSP it means an expanse (a wide continuous area of something – like a plane field or a forest). The direct translation of "expanse" to isiZulu is "umkhathi". Also the word that states "ukuselwa" is unknown. When I say it, children think of "ubusela" which is "theft", and then they ask "ubusela?"]

ERR Extract 46:

Amagama afana nalawa athi nje: "isilimela, lobotshela, ingqwele, isiyingi", ayinkinga. Uye uwasho and then expect an answer from the child; bese uthola ukuthi inkukhu inqunywe umlomo. Ingane ayazi nhlobo ukuthi asho ukuthini lawomagama.

[Words such as these ones: "isilimela [*galaxy*], lobotshela [*gulp/swallow*], ingqwele [*champion*], isiyingi [*circle*]", are problematic. Uye uwasho and then expect an answer



from the child; and then you find that the child would keep quiet (inkukhu inqunywe umlomo – isiZulu idiom)). The child does not know what those words mean at all.]

The participant above used the idiom “*inkukhu inqunywe umlomo*” which can be translated as: “*the chicken's beak has been cut off*”. In isiZulu, this idiom is used to describe a situation when a person keeps quiet and does not know what to say or how to respond to what has been said / what has happened. What this particular participant was expressing is that when learners encounter isiZulu words in the ISZSP that they do not know/understand, they often respond with silence.

Some of the challenges that are reported in the expert review reports allude to problems or errors in the ISZSP that occurred during the translation process. These errors were not owing to the lack of isiZulu words that were equivalent to those in the NSAIS, but it appears as though the norm sample was not representative of all isiZulu-speaking children as well as regional dialects. However, this cannot be confirmed at this point of the study, as Part I manual with standardization details does not exist. More examples of words that children have been found to struggle with or not know are displayed in Table 5 below:

Table 5

*isiZulu Words Used in the ISZSP Reported by Participants (psychologists) to be Unknown to Children*

Unknown isiZulu words used in the ISZSP	English translation in the ISZSP	Known/Alternative isiZulu words not used in the ISZSP
Lobotshela	Gulp	Ukugwinya
Okwasendulo	Ancient	Okudala kakhulu
Ummango	Declivity	Umehlelo
Ubonda	Wall	Udonga
Ukuselwa	Oversleep	Ukulala kuze kweqe
Izikhali	Tools	Amathuluzi
Umphangi	Robber	Isigebengu
Inggwele	Champion	Umnqobi / Owinile / Winner
Inselo	Hoof	<i>(Difficulty identified; but no alternative suggested)</i>
Inggabeshu	Skipping rope	Inggathu / Intambo / skipping rope
Isithabathaba	Expanse	Indawo evulekile
Isilimela	Galaxy	Izinkanyezi / Galaxy
Isitaladi	Road	Umgwaqo

Table 5

*isiZulu Words Used in the ISZSP Reported by Participants (psychologists) to be Unknown to Children*

Unknown isiZulu words used in the ISZSP	English translation in the ISZSP	Known/Alternative isiZulu words not used in the ISZSP
Ingxibongo	Smallpox	Smallpox
Umfanekiso	Picture / Drawing	Isithombe / Umdwebo
Izitembu	Stamps	<i>(Difficulty identified; but no alternative suggested)</i>
Iyembe	Shirt	Ishethi
Isaqathe	Carrot	Ukherothi
Isimungumungwana	Measles	Measles
Inqubulunjwana	Chickenpox	Utwayi / Chickenpox
Ekhukhwini	In the pocket	Ephaketheni
Izinhla	Lines	Olayini / imigqa
uMnumzane	Mr.	Ubaba
Uyise	Father	Ubaba
Unina	Mother	Umama
Isiyingi	Circle	Isekele / Urawundi / Circle
Unxantathu	Triangle	Triangle
Emgudwini	In the path	Endleleni

Most of the words provided in Table 5 are archaic and in the high variety spectrum within the standard dialect of isiZulu. The participants emphasized that this does not mean that the children that do not know the words used in the ISZSP, but know the ones not used in the test, are not intelligent. In order to assist the children to understand what the tasks in the ISZSP require of them, most participants resort to using alternative words – synonyms, loanwords and English words. They noted that isiZulu evolves and because of code switching and different dialects, it becomes difficult to adhere strictly to the language in the ISZSP. They often observe what children experience as challenging, and modify their administration of the ISZSP where they can.

The source of difficulty in some of the the words in the table above may be the evolving of language and its contact with English and Afrikaans – both in rural and urban areas. The following discussion sampled a few of these words to illustrate why the assessed children may have experienced difficulties during assessment. Some isiZulu names of fruit and vegetables are no longer in frequent use. These are words such as *isaqathe*. The loan word *ukherothi* (carrot) has been adopted for daily conversational functions. The same

applies to isiZulu medical terms, such as *isimungumungwana* (measles) and *inqubulunjwana* (chicken pox). The English words for most medical terms have been adopted into the isiZulu corpus, and they are spoken as part of isiZulu.

Moreover, as discussed above, the source of some difficulty can be traced to the advancement of technology. The revolution in information technology has rendered the use of stamped letters to send messages almost obsolete. Most of the children falling within the age range of the ISZSP were born during the internet/cell phone era, when people use digital means to communicate – which do not require stamps. Most of these children have not seen stamps, and would not know for what purposes stamps are used. The ISZSP has, therefore, not taken cognisance of the historical and sociocultural changes which have led to some terms, such as *izitembu*, falling away and new ones being introduced.

Another technological advancement has led to the falling off of the word *isilimela*. The English translation of this word in the ISZSP is "galaxy". The term galaxy refers to a gravitationally bound system of stars, gas, and dust (Binney & Tremaine, 2008). This term is broad, not specific to a particular type of galaxy, e.g., the Milky Way galaxy, the Andromeda galaxy, the Small Magellanic Cloud, and the Large Magellanic Cloud (Binney & Tremaine, 2008). It also does not refer to *isilimela*, which is the Orion constellation of stars referred to as the Pleiades, (Denison & Wotshela, 2012; Mathenjwa, 1999). *Isilimela* (Pleiades) is a type of stars that only appear once in a year. Historically, it was used to as a determinant of time, in addition to the sun and the moon, visible in late autumn during and after the reaping of the summer harvests (Mathenjwa, 1999). *Isilimela* was perceived as a symbol that signified the renewal of the soil hoeing season and it similarly indicated the renewal of the year for sowing purposes (Denison & Wotshela, 2012; Mathenjwa, 1999). With advanced developments, people now use the calendar to trace seasons. As words extract their meaning from the context in which they are used (Bakhtin, 1981; Fonseka, 2014; Holquist, 2002, 2014; Wertsch, 1990), children born to the present generation are familiar with the calendar and they are taught at home and at school how it can be used to indicate seasons. They are unfamiliar with the word "isilimela" as it is seldom used in the current spoken isiZulu. The ISZSP, in its current form does not take this into account.

Another challenging word identified in the table is the word *uMnumzane* (translated as Mister). The participants indicate that the assessed children are familiar with the English honorifics for men, which are "Mr" and "Sir" as these are commonly used in the school setting. However, the participants indicated that they often replace *uMnumzane* with *ubaba* (father) during administration. It must be noted that the words *uMnumzane* and

*ubaba* have a similar meaning. The term *uMnumzane* is used to refer to the male head of the family, and it is also used as an honorific for men (such as "Mr." in English). The term *ubaba* is used to refer to a biological father, and to paternal uncles. It is also used to address men that are old enough to be fathers (including those that one is not related to by blood) as a sign of respect (De Kadt, 1994; Cele, 2012; Kubheka, 1979; Mthembu, 2006, 2009; Nkabinde, 2003; Nyembezi & Nxumalo, 1966). *UMnumzane* is part of the high variety spectrum of isiZulu dialect, mostly used in formal settings, news and books; and it is not used as frequently as *ubaba*. *Ubaba* is part of the low variety spectrum, used in daily conversations (Cele, 2012; Mthembu, 2009; Nkabinde, 2003). This finding suggests that the children that the participants have assessed using the ISZSP may have adopted the use of the term *ubaba* in a wide sense, to show respect to a male person who is old enough to be a father. The ISZSP appears to have accounted only for the literal translation of "father" as the biological father; it currently does not accommodate the culturally specific terminology and modes of address that isiZulu-speaking children are accustomed to. This also points to the need to understand words in context, which is critical for the assessment of intellectual functioning.

Overall, the current study has found that isiZulu, as a national language, does indeed possess traditional linguistic unanimities and variations that are context bound (Bakhtin, 1981; Wertsch, 1991). During the administration of the ISZSP, both the tester and the testee have found themselves in positions where the use of the national language in the test invokes their social languages within the dialects of isiZulu, which facilitate dialogue and the construction of meaning. I argue, therefore, because of the archaic language of the ISZSP, the tool lacks multi-voicedness and ignores both the tester and the testee's social languages, i.e., context-specific and culturally specific features of isiZulu (Bakhtin, 1981; Hermans, 1996, 2003; Hermans & Kempen, 1995). This results in a collision of the language of the ISZSP with the language of the tester and testee during assessment. The psychologists who participated in this study have indicated how they have attended to such collisions in the past. The section that follows discusses further some of the mechanisms that psychologists have attempted to address challenges presented by the ISZSP.

#### **7.4 The Mechanisms that Psychologists Adopt to Address Challenges in Using the ISZSP**

As it has been established so far, the ISZSP is appreciated by its users as it is the only tool available in isiZulu for assessing the intellectual functioning of isiZulu-speaking children aged 9-19 years, 11 months. However, it has presented with some cultural and linguistic

difficulties. To address the cultural and linguistic challenges that they have encountered, the participants highlighted two mechanisms that they have adopted. They indicated that they switch from static assessment to dynamic assessment, as well as from monolingual administration in isiZulu to bilingual administration in isiZulu and English.

#### **7.4.1 The dynamic approach to assessment using the ISZSP.**

Regarding the first mechanism, i.e., dynamic assessment, the participants reported that they adapt their practice according to the needs of the testee. Dynamic assessment is an alternative to standardized psychometric assessment, and focuses on the collaborative dialogue between the assessor and the testee as mediator (Gutiérrez-Clellen & Peña, 2001; Haywood & Lidz, 2007; Peña, Iglesias, & Lidz, 2001; Peña et al., 2006). Dynamic assessment is based on Vygotsky's (1978, 1981, 1986) sociocultural theory of human development and his notion of the ZPD (discussed at length in Chapter 2). Some participants reported that they switch to dynamic assessment for the following reasons:

ERR Extract 47:

*When they struggle, I resort to dynamic assessment. I stop them and check for understanding. Then I coach them uma ngibona sengathi angitholi their best effort because of a foreign task. Ngiyazi ukuthi lokhu ku strictly against the test instructions, kodwa uma sengibona ukuthi manje sebeyaqondisisa, ngiqhubekela kumsebenzi olandelayo.*

*[When they struggle, I resort to dynamic assessment. I stop them and check for understanding. Then I coach them when I get the sense that I am not getting their best effort because of a foreign task. I know that this is strictly against the test instructions, but once I see that they now understand, I proceed to the next task.]*

ERR Extract 48:

*Mayelana nolimu, ngiye ngisebenzise isiZulu nesiNgesi. Ngake ngahlola ingane eyayihluleka to conceptualise the blocks and the shapes that he needed to build ngendlela eyayilindelekile ngokwe ISZSP. Isibonelo, building a red diamond shape whilst keeping the shape of all four blocks in a square form. Esikhundleni sokwenza ngendlela elindelekile, ingane yakwazi to produce the red diamond, however the blocks were separate forming an "X" with the red diamond in the middle. Although his ability to do so indicates great skill, indlela akwenza ngayo akusiyo leyo eyayifuneka as indicated in the picture before him. Ngenxa yalokho kwakumele ingane ithole a score of zero (0). Engakwenza, I decided to switch to dynamic assessment for this subtest as the child*

required scaffolding so as to have a better sense of the test items. This was followed by a re-assessment in standardized manner six months later.

[Regarding the language, I usually use isiZulu and English. I once assessed a child that struggled to conceptualise the blocks and the shapes that he needed to build in a manner that was expected according to the ISZSP. For example, building a red diamond shape whilst keeping the shape of all four blocks in a square form. Instead of doing it in the expected manner, the child was able to produce the red diamond, however the blocks were separate forming an "X" with the red diamond in the middle. Although his ability to do so indicates great skill, the way he did it was not the acceptable one as indicated in the picture before him. Because of that, the child was supposed to get a score of zero (0). What I did is, I decided to switch to dynamic assessment for this subtest as the child required scaffolding so as to have a better sense of the test items. This was followed by a re-assessment in standardized manner six months later.]

The participants above switched to dynamic assessment to facilitate the process when they observed that the testee was struggling with tasks. In contrast to standardized psychometric assessment, dynamic assessment allows for scaffolding and mediation in the testee's ZPD to assist him/her to perform beyond their level of independent functioning through collaborative dialogue (Peña et al., 2006). The statements: "I resort to dynamic assessment" and "I decided to switch to dynamic assessment" indicate that they assume positions of power or authority as assessors to opt for means to address challenging situations during assessment. They take on authorship of the assessment process and use scaffolding to unearth the testees' potential, especially with tasks that they are alien to isiZulu-speaking children. They scaffold the assessed children's ZPDs until the task is understood. The following video extract supports this finding from the expert review reports:

#### Video Extract 15: Similarities subtest

Psyc: Isihlalo – itafula. [Chair – table.]

L06: <puts hand on mouth, frowns> K'fana ngokuthi [They are similar because] (.10).

Psyc: <<looks at L06>> Isihlalo – itafula. Kufana ngani? 'Ma ubuka la. [Chair – table. How are they similar? If you look here.] <<points at the legs of the chair and the legs of the table>>

L06: <looks at the chair and the table> (.5) <looks at the window> Angazi. [I do not know.]

Psyc: Yini le nale? [What is this and that?] <<points at the legs of the chair and the legs of the table>>

L06: Imilenze. Kok'bili kunemilenze. [It's the legs. They both have legs.]

Psyc: Ista... Itafula nes'hlal' angithi k'fana ngokuthi kok'bili kunem'lenze? Angith' uyabo kok'bili kunem'lenze? [The ta... The table and chair are similar because they both have legs, right? You can see they both have legs, right?]

L06: Yebo. [Yes.]

Psyc: Futhi k'yasetshenzisw' ukuth' uhlale, kusetshenziswa nokuth' usebenze kukon' angithi? [They are both also used to sit, and they are used as a space to work at, right?]

L06: <looks at Psyc> Yebo. [Yes.]

Previous research has identified dynamic assessment as promising in the development of more culturally competent approaches for the assessment of intellectual functioning in CLD learners (Guitierrez-Clellen & Peña, 2001; Haywood & Lidz, 2007; Lidz, 1991; Peña, Iglesias, & Lidz, 2001; Peña et al., 2006). Understanding a child's ZPD has been found to be a useful indicator of the child's learning potential and intellectual functioning. As Vygotsky (1978, 1986) purported, the development of higher mental functions is influenced by a child's interaction with adults and more capable others. Therefore, when switching to dynamic assessment during the administration of the ISZSP, the psychologist formulates the child's ZPD in order to obtain a fuller determination of the child's intellectual strengths and areas that need support (Haywood & Lidz, 2007; Miller, Gillam, & Peña, 2001). This is essential as it highlights not only the child's current intellectual abilities, but also their intellectual potential. Conversely, the ISZSP is constructed in the manner that only permits the static approach to assessment. When the child struggles with or is unable to complete a particular task – not owing to intellectual incapacity, they obtain a certain score which does not take into account the factors which contributed to it.

Regrettably, although it seems ideal, the switch from standardized assessment to dynamic assessment is not free from challenges. These two approaches are embedded on different philosophies. Standardized psychometric assessment is based on the Piagetian psychometric tradition (Iversen et al., 2005; Levert & Jansen, 2001; Sjøberg, 2010), while dynamic assessment is embedded in the Vygotskian sociocultural tradition (Haywood & Lidz, 2007; Miller, Gillam, & Peña, 2001; Peña et al., 2006). Mixing these two philosophic traditions of assessment, one Western European, one Eastern (Russian) in origin brings about challenges because their assumptions about intelligence differ vastly.

As can be understood from ERR Extract 47, there is an awareness and acknowledgement that dynamic assessment is strictly against the instructions of the ISZSP. One of the reasons

provided for intentionally switching to dynamic assessment is the observation of the difficulty in completing the "foreign" tasks. Nonetheless, those who resort to dynamic assessment during the administration of the ISZSP deviate from the standardized administration of the tool. This invalidates the scores obtained and it poses an ethical question about whether or not the information resulting by means of dynamic assessment is incorporated into the test score. If this information is included, another ethical question that this poses relates to whether the process by means of which the information was derived is communicated to the addressee of the psychological report on the intellectual functioning of the assessed child.

#### **7.4.2 The bilingual administration of the ISZSP.**

The second mechanism that the participants reportedly use to address the cultural and linguistic challenges that they face when administering the ISZSP is bilingual administration. As it is indicated in the previous chapter, the participants do not administer the ISZSP strictly in isiZulu. When the testees experience difficulty in understanding the isiZulu language in the tool or following the instructions, the participants report to having diverged from the monolingual administration of the ISZSP.

ERR Extract 49:

Umbuzo kanye nomyalelo ngikwethula ngesiZulu nangesiNgesi; umhlolwa ngiyamchazela ukuthi ngiyakwazi ukukhuluma isiZulu kanye nesiNgesi, ngakho ke angaphendula nganoma iluphi ulimi kulezi ezimbili; ngiyachaza ukuthi kumele anganaki kakhulu ukuba wrong, kodwa abuze uma engezwa futhi acele ukucaciselwa. Ngiye ngizibhalele nje mina ama *notes* eceleni ukuze angisize esikhathini esilandelayo, hhayi "njengobufakazi". Angikaze ngikubhale ngendlela okungathiwa *i-formal or publish these notes*.

[I present instructions and questions in both isiZulu and English; explain to the testee that the tester can speak both isiZulu and English, therefore the testee can respond in any of the two languages; I explain to the testee that they must not concentrate on not being wrong, but they must ask if they do not understand and ask for clarity when needed. I normally write *notes* for myself at the side so that they would help me in subsequent times, not "as evidence". I have never written them in a manner that is *formal or publish these notes*.]

ERR Extract 50:

Ukuze ngithole izimpendulo ezilindelekile, isikhathi esiningi yilokhu engikwenzayo: Umbuzo kanye ne *instruction* ngikwenza ngesiNgesi nesiZulu. Ingane ngiyayitshela ukuthi



ibuze uma kukhona la idideka khona. Kuyathusa ukuthi bangakanani abafundi abacabanga ukuthi akumele babuze ngoba uwu “dokotela”. Ngakho ke kuba into yokuqala ukuthi ngiziveze njengomuntu ozokwazi ukusiza ingane uma inemibuzo *while completing the tasks*. Lokhu kusiza kakhulukazi ukulungisa isiko lokuthi ngazi konke ngoba ngimdala futhi yimi engihlodayo. Kuyasiza futhi ukulungisa lendawo yokungachazisi kwabo abafundi. Futhi kuye kubaluleke ukuchaza ukuthi angeke umntwana akwazi konke esikubuzayo, ngenxa yokuthi okunye kwalezizinto kuyizinto zaphesheya.

[To get the expected answers, this is what I do most of the time: I give the question and the *instruction* in English and isiZulu. I tell the child to ask if they get confused at some point. It is amazing how many learners think that they should not ask because “you are a doctor”. Therefore, it becomes the first thing for me to present myself as a person who would be able to help the child if they have questions *while completing the tasks*. This helps especially to rectify the culture ((of perceiving)) that I know everything because I am older and I am the one who is assessing. It also helps in the issue of the learners not explaining well. It is important also to explain that the child would not know everything that we ask, because some of these things are things from overseas.]

The participants quoted above indicate that they present themselves in the position: “I-as-bilingual” to the testees. In this way, they invite the assessed children to respond either in isiZulu or in English and seek clarity when they do not understand the instruction. This is done to put the learners at ease when the participants find themselves as perceived to be in positions such as “I-as-knowledgeable” because of their age and because of their position of “I-as-assessor”. In doing this, the participants reduce the power of the ISZSP to allow the children to present their voices in a manner in which their intelligence has been socially and culturally mediated through language. In the context of an assessment of intelligence, bilingualism means that bilingual children can refer to both languages they speak to provide answers. This would allow them to enhance their results and give the most accurate reflection of their intellectual functioning (Lacroix, 2008). When the psychologist or the testee code switches on a specific item in a subtest, it does not mean that the construct being tested gets altered, it is only the language that changes, drawn from their sphere of communication (Lacroix, 2008).

### **7.5 Psychological Assessment as a Dialogical Process**

The administration manual of the ISZSP is structured in a monologic manner that suggest that the assessment session would be a space where the psychologist asks questions, and the testee gives answers with no room for meaningful dialogue. The findings from the

audio-visual data suggest that it is possible for the assessment process to be more than merely a question and answer session when using the ISZSP. There are instances when the assistant researcher administered the test in a standardized way, and there were times when she deviated from the standardized administration, and entered into dialogue with the testee. This is shown in the examples below:

#### Video Extract 16: Vocabulary Subtest

- Psyc: Lobotshela. [Gulp.]
- L10: <drops jaw> <widens eyes> <looks at card> Lobotshela. [Gulp.] (.16)  
<mumbles> <smiles> (.20)
- Psyc: <<looks at L10>> <<bites lower lip>>
- L10: <leans forward closer to the card> <looks at card> <mumbles> <points at card>  
<mumbles> (.7) <shakes head> Ey, angazi<sup>oo</sup> [[[exclamation "ey")] I do not  
know<sup>oo</sup>] <smiles shyly>
- Psyc: Ukungalaleli. [Disobedience.]

In the above extract, the assessor adhered to the required mode of administering the ISZSP, i.e., asking the question once, giving the testee only one opportunity to give an answer. Observing the testee's non-verbal behaviour, it can be deduced that she was struggling with the utterance: "lobotshela". The dropping of the jaw signifies an exclamation or a surprise, while the widening of the eyes could signify puzzlement (Chovil, 1991). The mumbling, smiling, shaking of the head, leaning forward and pointing at the card – all show how the learner attempted to find answers in dialogue with herself and/or invisible others (hidden dialogicality) (Akhutina, 2003; Bakhtin, 1981; Barani et al., 2014; Hermans, 2002; Holquist, 1990; Motta et al., 2013; Oleś, 2009; Wertsch, 1990, 1991). However, all these utterances (gestures) did not elicit an appropriate response from the assessor to whom they were addressed, who simply moved on to the following test item without responding to the learner's answer: "I do not know".

In the next video extract, the assessor took a different approach.

#### Video Extract 17: Similarities Subtest

- Psyc: Kufana ngani inyanga nenkanyezi? [How are the moon and the stars similar?]
- L04: Inyanga nenkanyezi? Inyanga umuntu or the moon? [The moon and the stars? Inyanga the person or the moon?]
- Psyc: Mmmhhh ((uh-huh)) Kufana ngani? [How are they similar?]
- L04: Kufana ngokwegama, kodwa kuhlukile futhi ngoba inyanga ilento le ema phezulu esibhakabhakeni, besekuthi inkanyezi ilento ehambayo kancane

ngenkathi ikhanyisa. [They are similar in name, but they also differ because the moon is that thing that ((stays still)) in the sky, and then the star is that thing that ((moves)) slowly while it shines the light.]

Psyc: Kufana ngani? [How are they similar?] <<looks at L04>>

L04: Inyanga nenkanyezi? [The moon and the stars?]

Psyc: <<nods>>

L04: Akufani. [They are not similar.]

Psyc: Angithi uqeda kusho ukuthi ukuthola kuphi? [You have just said where they are found, right?] <<points upwards>>

L04: Phezulu esibhakabhakeni. [Up in the sky.] ((This answer can be awarded a score of 1.))

Psyc: Kwenzani? [What do they do?]

L04: Kuyakhanyisa. [They give light.] ((This answer can be awarded a score of 2.))

Psyc: Kuphuma nini futhi? [When do they come out again?]

L04: Kuphuma ebusuku kokubili. [They both come out at night.] ((This answer can be awarded a score of 2.))

Psyc: Usuyabona manje ukuthi inyanga nenkanyezi kufana ngani? [Can you see now how the moon and the star are similar?]

L04: Yes.

Psyc: Kufana ngani? [How are they similar?]

L04: Kokubili kuphuma ebusuku, esibhakabhakeni, futhi kuyakhanyisa. ((This answer can be awarded the maximum score of 3.)) Kodwa inyanga isuke imile, inkanyezi iyahamba kancane-kancane. [They both come out at night, and they give light. But the moon ((stays still)), the star ((moves slowly)).]

Psyc: Okay; that's right.

The video extract above begins with a known-answer question (known by the assessor as prescribed by the ISZSP). The testee asks a clarifying question in terms of what the question seeks, because of the homonym “inyanga”. After this, the testee responds to say that the moon and the star are not similar because the moon appears stationed in the sky, while the star moves slowly across the sky. This response can be accepted as partially correct because from the testee's perspective, the moon and the stars differ in the manner in which they “move” across the sky. Although it is the earth that rotates on its orbit around the moon and the sun, astronomy tells us that the stars, moon and other celestial objects have their own movements (Isik-Ercan, Zeynep Inan, Nowak & Kim, 2014). For some stars, this slow movement can be seen when one pays careful attention, whereas with the moon, the movement is not clearly visible. It is the change in the moon's position that can

be seen. Seeing that the testee gave a response that the ISZSP would not accept, the subsequent assessor-testee turn-taking interaction occurs in a dialogical manner that shaped that testee's final extensive answer. This manner does not take a monologic stance which would be characterized by an authoritative discourse. It allows the testee a platform to voice opinions as hero of the assessment act (Bakhtin, 1981).

The final answer given by the testee demonstrates how he used the internally persuasive discourse, giving an answer that is half-his and half-assessor's. His final response is that yes, the moon and the star are similar in terms of their functions at night (half-assessor response), but they still differ in the way in which they move across the sky (half-his response). This kind of response is representative of what Bakhtin (1981) refers to as an open, unfinalized furthering of meaning. The assessor's response: "Okay; that's right" shows that she is in agreement with the testee, allowing for a polyphonic construction of the assessment process.

The following extract demonstrates how the assessor used scaffolding and guided conversation in the assessed learner's ZPD.

#### Video Extract 18: Comprehension Subtest

- Psyc: Elokwenzan' ikhala? [Why do you have a nose?]
- L02: Elok'phefumula. [It is for breathing.]
- Psyc: Nani futhi? [What else?]
- L02: <looks up to the ceiling, then back to the wall across> <puts hand on mouth>  
<looks away to the door> <looks up to the ceiling>
- Psyc: Senzani futh' ngekhala, kanje? [What else do we do with the nose, like this?]  
<<showing 'smelling' with left hand>>
- L02: Siyafinya. [We blow the nose.] <puts hand on mouth>
- Psyc: Nani futhi? [What else?]
- L02: (.14) <looks away>
- Psyc: 'Ma k'khon' intuthu nje, kukhon' int' eshayo, kwenza...kwenzakalan' ekhaleni?  
[When there is smoke, when something is burning, what happ... what happens  
in the nose?] <<points at nose>>
- L02: <looks at Psyc> <looks away> <rubs eyes with hand> Kuyacinana [It gets  
congested] <smiles, rubbing eyes>
- Psyc: Bese likhona... uzwa ngan' ukuthi k'khon' int' eshayo? [And then it is able to...  
how do you know that something is burning?]
- L02: <looks at Psyc> <bites fingers> Ngekhala. [Through the nose.]

- Psyc: Kush' ukuth' uyakwaz' ukwenzan' futhi ngekhala? [That means what else can you do with the nose?]
- L02: Ukuzwa int' eshayo. [To tell that something that is burning.]
- Psyc: Ukunuka, angithi? [To smell, right?] <<demonstrates with nose>>
- L02: Yes.

Semiotic mediation was instrumental in scaffolding L02's performance in this task. The assessor used signs, such as pointing at the nose and smelling with the nose to guide the learner and to facilitate a dialogical meaning-making process. The guided prompts by the assessor (which are against the standardization rules of the ISZSP) allowed the child to think and consult her fund of knowledge in order to respond to the assessor's prompts. It is this form of dialogue and mediation that contributes to the development of their higher mental functions (Vygotsky, 1978). This finding therefore suggests that it is fitting to assess intelligence when it is mediated in a dialogical manner. In the following video extract, the learner and assessor pair their verbal and non-verbal turn-construction units to assert their positions as author and hero/performer of the assessment task:

#### Video Extract 19: Similarities Subtest

- Psyc: Isihlahla – utshani. [Tree – grass.]
- L07: <raises eyebrow, looks up> Ama-leaves aluhlaza, utshan' bul'hlaza, [The leaves are green, the grass is green] uhm...
- Psyc: <<looks at window>>
- L07: Although ke is'hlahla ke sona si... [Although the tree is...] <looks up> sikhula eventually sibe s'khulu... [it eventually grows to be big...]
- Psyc: Kufana ngani? [How are they similar?] <<smiles>>
- L07: <frowns then smiles> Ang'thi manje [Isn't it now] I'm trying to demonstrate.
- Psyc: Okay.
- L07: (.) I just think it's the leaves es'hlahl' a-green and utshani futhi, ja. [I just think it's the leaves of the tree that are green and the grass also, ja] <looks up and then at Psyc>
- Psyc: <<smiles, raises eyebrows>>
- L07: Oh! <smiles> ((realises what answer is sought after)) They're both living things, ja, 'cause they're plants, they do the same functions.

Dialogue positions participants in turns that they take in a certain sequence (Heath et al., 2010; Seedhouse, 2005). The exchange positions of the assessor and the testee begin on unequal footing with respect to one another and with respect to knowledge (O'Connor

& Michaels, 2007). Again here, the assessor knows and authors the answer that the ISZSP seeks from the testee, while the testee is the learner. In her third turn above, the ISZSP gives the assessor the authority and the positional power to evaluate the correctness of the testee's answer. She interrupts the testee and asks again how the items presented to her are similar – because she has evaluated the testee's response as incorrect. Interestingly, the testee uses a frown and a smile to emphasize her expression: “*Isn't it now I'm trying to demonstrate*” (Chovil, 1991). In so doing, the testee asserts her position in the dialogue – from addressee to speaker/addressor. The assessor then allows for intellectual openness, which positions the testee as a hero of the assessment act, as well as a thinker and holder of a noteworthy explanation (O'Connor & Michaels, 2007). When the assessor smiles and raises her eyebrows, she gives the testee a signal that alerts her to the response that can be awarded a good score. This dialogical approach to assessment positions both the assessor and the testee on equal footing in negotiating meaning and co-constructing the assessment process (Amineh & Asl, 2015; Iversen et al., 2005; O'Connor & Michaels, 2007). However, the ISZSP does not give room for such a dialogical approach to assessment.

The current study also found that during the administration of the ISZSP, when given the opportunity, testees are able to draw utterances from their speech community to appropriate their answers. This enhances their performance and gives a good reflection of their intellectual functioning. This is demonstrated in the following video extract:

#### Video Extract 20: Comprehension Subtest

Psyc: Ungenzenjani uma uthola ingane elahlekile esitaladini esiphithiza izimoto nabantu? [What would you do if you find a lost child on the road that's busy with cars and people?]

L05: Ngi (.) ngingaqale ngibhek' ukuthi lapho kuleyondawo la k'khona khona leyongane, ngibhek' ukuthi *is it safe enough* ukuthi ngiwele, ngikwaz' ukuy'thatha and 'ma sengiy'thathile *since* nami ngi... *I'm a teenager* ngiy'yise kwi-orphanage, maybe bangakwaz' ukuy'na..., *actually* bangakwaz' ukuy'nakekela. *So, ja, well* ke l... k'qala nginga-check-a ama-safety measures ukuthi, *is it safe enough* ukuthi ng'wele and 'ma ng'fika khona ngizokwaz' uk'buyela la ng'qhamuka khona yini.

[I (.) I would start by checking whether the place where the child is *is safe enough* for me to cross the street, and the take him/her and when I've taken him/her *since* I am also... *I'm a teenager* I would take him/her to the orphanage, maybe they would be able to take... *actually* they would be able to take care of him/her. *So, ja, well* then l... first I would check for safety

*measures that, is it safe enough for me to cross the street and when I get there would I be able to go back to where I came from.]*

The video extract above demonstrates how the child ventriloquates institutional/political voices in her response. In her statement: “*I am a teenager*” the testee highlights and understands that she is not yet at an age when she could be considered old-enough to care for a child. For this reason, she would take the lost child to an orphanage. Although it is hidden in the text from the video extract, I infer that the learner uses her internally persuasive voice to emphasize the political voice of the Department of Social Department [DSD] (2005) and presents it as her own, i.e., she speaks through it. The DSD (2005) regulates the care of orphans and vulnerable children – including lost and displaced children – in South Africa. This appropriation of others' voices confirms the dialogical nature of human functioning (Bakhtin, 1981, 1986; Mkhize 2004, 2005; Hermans, 2001a, 2003; Holquist, 1990; Samuelson, 2009) inclusive of intellectual functioning. The standardized administration of the ISZSP is currently monologic; it does not allow this form of engagement with the test items in the Comprehension subtest. As a result, testees obtain low IQ scores owing to not being afforded an opportunity to engage in dialogue with the assessor. Dialogue is where they would draw from multiple voices from their spheres of communication to give a comprehensive response to test items. The findings indicate a shift in the approach that psychologists take in assessing isiZulu-speaking children with the ISZSP. Commensurate with the dialogical approach to human functioning that is also prized in indigenous African thought (Holquist, 2009; Mkhize, 2005; Ooi, 2013; Ramose, 2002) it seems that the shift is moving to an approach that would assess them as such.

## **7.6 Conclusion**

This chapter presented findings that address the research questions that investigated the following: the perceived challenges faced by isiZulu-speaking learners in understanding the language used in the ISZSP; the mechanisms and processes adopted by psychologists to address cultural and linguistic demands of using the ISZSP; and how psychologists and learners co-construct and negotiate the assessment process in the context of cultural and linguistic barriers during the administration of the ISZSP.

The findings indicated some challenges pertaining to the current context in which isiZulu-speaking children are growing, which places them in-between cultures. This context presents opportunities for language contact and acculturation, which contributes to the

evolving nature of spoken isiZulu. Consequently, isiZulu that is in the ISZSP is archaic and not synchronous with dialects that are currently spoken by the population the test is intended for. This leads to psychologists adopting mechanisms such as dynamic assessment and bilingual assessment, which compromise the standardized administration of the ISZSP. However, the findings of this study suggest that these mechanisms allow for a dialogical approach to the assessment of isiZulu-speaking children. This approach aids in allowing the testees to speak through an internally persuasive voice to move in various positions, such as moving from the position of addressee to the position of speaker/addressor and hero of the assessment process. This highlights some of the features or characteristics of dialogical human functioning, which is inclusive of intellectual functioning.



## CHAPTER 8

### CONCLUSION: FROM HOMO VACUUS TO HOMO DIALOGICUS

*To be means to communicate dialogically. When dialogue ends, everything ends. Thus dialogue, by its very essence, cannot and must not come to an end (Bakhtin, 1984, p. 252).*

#### 8.1 Introduction

Language plays an important role in the expression and assessment of intelligence. It is therefore important to acknowledge and accommodate cultural and linguistic diversity when conducting psychological assessments. The ISZSP was published in 1990 to assess the intelligence of isiZulu-speaking children. Prior to the current study, it had not been evaluated for cultural and linguistic appropriateness. This study endeavoured to examine the ISZSP and establish ways in which it is appropriate or inappropriate for use with its target population.

This final chapter gives a summary of the study. It discusses the conclusions drawn from the findings and highlights the study's significant contribution. The chapter also highlights the implications for policy, practice and theory. The limitations of the study are presented, as well as recommendations for further research.

#### 8.2 Summary of the Study

This study sought to qualitatively evaluate the cultural and linguistic appropriateness of the ISZSP for use with its intended population, i.e., isiZulu-speaking learners. The isiZulu in the ISZSP has been found to be outdated and confusing to isiZulu-speaking learners of the current generation. Thus, they tend to perform poorly on this test, and obtain low IQ scores. Owing to the scarcity of isiZulu intelligence tests, it was crucial to evaluate the cultural and linguistic appropriateness of the ISZSP. Furthermore, the purpose of this study was to bridge the gap in the literature as prior to this study, no research had evaluated the language of the ISZSP for contextual relevance.

Findings from previous research have indicated that translated intelligence tests often do not meet the criteria for a culturally and linguistically fair assessment (Blatchley & Lau, 2010; Ortiz, 2002; Visser & Viviers, 2010). The translation is often biased and invalidated by the loss of the original meaning or by having test items that may suggest different meanings in different cultural contexts (Oliden & Lizaso, 2014; Venter, 2000). Furthermore, translated

psychological tests have been found to lose or blur local expressions, idioms and customs, which results in the misinterpretation of results (Gladstone et al., 2008). This is because of the fluidity and evolving nature languages, and the inability to transport cultural values and assumptions from one test to another (Amineh & Asl, 2015; Carter et al., 2005; Greenfield, 1997; Magagula, 2009; Mufwene, 2014; Ndimande-Hlongwa & Ndebele, 2014; Ngcobo, 2013). Thus, it is crucial to periodically examine the appropriateness of intelligence tests for fair use within cultural and linguistic diverse contexts.

The major objective of this study, therefore, was to conduct a qualitative evaluation of the cultural and linguistic appropriateness of the ISZSP for use with isiZulu-speaking learners. This was done by adopting a social constructionist paradigm, with a triangulated descriptive-interpretive qualitative research design (Cohen & Manion, 1994; Elliot & Timulak, 2005; Mertens, 2005). For the theoretical and methodological framework, I employed Bakhtin's (1981) dialogism and focused on the relational and dialogic nature of human functioning. This was fitting because dialogism allowed me to pay attention to all forms of language that play a role in the social construction of the assessment process when the ISZSP is used. Dialogism also allowed for an evaluation of the language of the ISZSP that was embedded in a philosophical understanding of all human functions – including intelligence – as dialogical (Bakhtin, 1981).

This philosophical approach differs from Cartesian and Piagetian approaches to intelligence, which posit that innate cognitive abilities are the sole ideographic genetic makeup of intellectual functioning (Bruner, 1986; Genovese, 2003; Iversen et al., 2005; Lowenthal & Muth, 2008; McNamee, 2004; Piaget, 1954). The Bakhtinian philosophy views intellectual functioning through a lens similar to that of African conceptions of intelligence. In the African indigenous epistemology, intelligence is viewed as socially mediated, distributed and emergent during the course of a social activity and dialogue (Cocodia, 2014; Furnham et al., 2004; Furnham et al., 2009; Lima et al., 2002). It was, therefore, fitting to apply Bakhtinian concepts to the qualitative evaluation of the ISZSP to ascertain whether its use facilitates a process in which the African child's intelligence is assessed in line with the conception of the construct in an African worldview.

Two types of data sets were collected for the study, i.e., expert review reports written by 10 psychologists and audio-visual recordings of 12 learners being assessed using the ISZSP. Contextualized thematic analysis and conversation analysis were employed to analyze and interpret data in a manner that is well attuned to the theoretical assumptions of

dialogism. The utterance was employed as the unit of analysis for all data. The application of dialogism and its concepts to the analysis of data allowed for a contextualized meaning-making process and unfinalized interpretation data (Aveling et al., 2014; Gellipsie & Cornish, 2015; Salgado et al., 2013). It also highlighted the dialogical nature of intellectual functioning and the dialogic nature of the assessment process.

### **8.3 Summary of Findings and Conclusions Drawn**

The summary of findings of the study and conclusions regarding the research questions are presented in the following subsections:

#### **RQ1: What are psychologists' experiences and views regarding the cultural and linguistic appropriateness of the ISZSP for the intellectual assessment of isiZulu mother tongue learners in its current form?**

For the first research question, the Bakhtinian analysis of data showed that the psychologists' experiences have placed them in two positions. The first is a position where they detach themselves from the ethical obligation to develop and adapt contextually relevant intelligence tests. They indicated that the language of the ISZSP is outdated, and that the tool carries some cultural and linguistic bias, but they continue to use it despite knowing about its challenges. They, therefore, perpetuate the use of the ISZSP with its outdated language. They justify this by implying that there is no other option; ruling out the possibility of revising the language of the ISZSP and developing new contextually relevant intelligence tests for isiZulu-speaking children. It was evident, from the data, that psychologists detached themselves from this ethical obligation because they place this responsibility on test distributors and structures such as the HPCSA to address issues of test evaluation, adaptation and development. However, the onus is on test users to ensure that their practice is fair and free of bias – even when it comes to test use (APA, 2010; HPCSA, 2006; ITC, 2013).

Using the ISZSP has also placed psychologists in a position where they perceive themselves as incompetent to administer the test. This is mostly because they are at times uncomfortable with and uncertain of the meaning of some of the words in this test. They reported to have experienced difficulties in using some of the Zulu words in the ISZSP, which makes them question their competence in assessing isiZulu-speaking learners using the ISZSP. This positioning of incompetence is owing to variations of isiZulu dialects and that the psychologists' and testees' linguistic backgrounds may differ from the background of the ISZSP itself. IsiZulu in the ISZSP is therefore given more power than the current spoken

isiZulu, which psychologists and testees are familiar with. In other words, the language of the ISZSP is not what Bakhtin (1981, 1986) referred to as the living language, i.e., the language-in-use. It is a dictionary form of language, which is archaic and unfamiliar to some isiZulu-speaking psychologists and children. Because of the language of the ISZSP, psychologists find themselves deviating from ethical practice and they modify the manner in which they administer the test. This adds to their experiences of self-doubt regarding their competence in administering this test in the required standardized manner.

The current study found that the psychologists viewed the construction of the ISZSP as culturally and linguistically inappropriate for the current generation of isiZulu-speaking learners. They viewed the construction of the ISZSP as posing threats to validity – in terms of the construct that it intends to assess. As Black Africans, the participants believe that intelligence constitutes of a broad spectrum of behaviours and personal dispositions, and values contextual intelligence. They expressed that the ISZSP was constructed to measure individual biological mental abilities. Intelligence as assessed by the ISZSP is limited to Western traditional abstract notions of the construct. It excludes the social and cultural dimensions of intelligence. In this way, the ISZSP is imbued with Western meanings and assumptions of intelligence, which render the African/Zulu voices almost mute. This poses threats to the construct validity of this test.

Additionally, the participants' views indicate that some test items of the ISZSP are culturally inappropriate and infused with the authoritative discourse that esteems Western conceptions of intelligence. These refer to test items that use materials, names, words expressions, practices, events and histories that are foreign and not part of everyday realities of Zulu children. This makes the assessment process monologic and poses a threat to the validity of the tool. Other views that the participants expressed are in relation to the confusing instructions of the ISZSP; these are viewed by participants as problematic. The problem is attributed to the use of archaic words which confuse the testees, missing instructions for some subtests, as well as errors in translation that resulted in the loss of meaning of what should be assessed. The use of archaic words, in any test, that are less common in the spoken language of the testees indicates cultural and linguistic bias (Grégoire et al., 2008), which could invalidate the scores obtained.

There are currently inconsistencies in the rubrics and scoring guides of the subtests in the ISZSP. These are viewed by psychologists as linguistically challenging because they are not presented in a coherent manner. Some rubrics in the manual are written only in English, while those that are written in both isiZulu and English often do not have the same

meaning. Some rubrics that are written only in English exclude isiZulu correct answers, which leave psychologists in a difficult position. In relation to the scoring guide, the most challenging issue is the awarding of zero or low scores/marks to answers that are meaningful and contextually relevant for isiZulu-speaking children. This happens for test items with rubrics and scoring criteria that are infused with Western assumptions and supremacy (Kwate, 2001).

The challenges posed by the current language of the ISZSP, as experienced by psychologists, suggest that this tool is not culturally and linguistically appropriate for assessing isiZulu-speaking children. These challenges indicate poor standardization that may have taken place during the translation of the ISZSP. With the unavailability of the Part I Manual of the test, it is possible that the standardization process did not take place at all. There is only an indication in the Part II Manual that the ISZSP was translated from isiXhosa to isiZulu. The standardization process would have identified and addressed the problematic issues that are reported by the participants in order to eliminate cultural and linguistic bias.

**RQ2: What have psychologists observed to be challenges faced by isiZulu mother tongue learners in understanding the language used in the ISZSP?**

isiZulu-speaking children have experienced linguistic difficulties when assessed with the ISZSP. They often misunderstand and get confused by the archaic words in this test. They also get confused by the test's use of words that have fallen off from the currently spoken isiZulu owing to technological advancements. Some isiZulu-speaking children live in-between cultures, which results in language contact, bi/multilingualism and acculturation (Benjaminson, 2012; Magagula, 2009; Mdlalo, 2013; Mufwene, 2014). Many isiZulu-speaking children in KwaZulu-Natal speak English regularly and borrow from isiZulu, as this is the linguistic practice in their schools and homes. Furthermore, contact with English or Afrikaans dilutes isiZulu which, as a language, already has variations within itself. When assessed monolingually with the ISZSP, isiZulu-speaking children are placed in a position where they hear some of the outdated words in the test for the first time, which impacts on their performance. The current form or construction of the ISZSP does not allow psychologists to explain what the words contained in the test mean when testees seek clarity. In this way, the ISZSP does not accommodate the fluidity and evolving nature of isiZulu as a language. This, consequently, impedes on the testees' abilities to meet the linguistic demands of the test.

The ISZSP is found to be culturally and linguistically inappropriate in this regard because it ignores the living, currently spoken isiZulu as well as its context-specific and culture-specific features. It lacks multi-voicedness and ignores regional and social variations of isiZulu. It leads to the testees obtaining a low IQ score, which does not reflect their true intelligence.

**RQ3: What mechanisms and processes do psychologists adopt to address linguistic and other challenges in using the ISZSP?**

The dynamic approach to assessment and bilingual administration of the ISZSP have been reported as mechanisms that assist to remedy the cultural and linguistic challenges encountered during the use of the ISZSP. Psychologists resort to dynamic assessment when difficulties arise in order to meet the needs of the assessed children. Dynamic assessment seems to be an approach that allows psychologists to scaffold the testees and semiotically mediate a process that would yield meaningful results when using the ISZSP. Administering the ISZSP bilingually has proved to be helpful for both the psychologists and testees. As most isiZulu-speaking children are bilingual, isiZulu-English code switching serves to provide clarification and understanding of the obsolete isiZulu that is in the ISZSP. This affords testees an opportunity to complete the tasks of the test in a manner that enhances their results and gives a precise reflection of their intellectual functioning.

The rules for static monolingual administration of the ISZSP do not meet the linguistic needs and abilities of either the psychologists or isiZulu-speaking children. In stead, the ISZSP imposes its authoritative discourse in terms of the assessment approach it deems as appropriate. It gives power to its archaic language and ignores bilingualism and the isiZulu dialects that the psychologists and the testees are accustomed to. Owing to this, it fails to appropriately assess isiZulu-speaking children in a manner that is free from linguistic bias. It also fails to function as an indicator of the testees' true intellectual abilities and learning potential. The construction and standardized administration of the ISZSP also does not allow an opportunity for psychologists to formulate the testees' ZPDs and establish a complete picture of their intellectual strengths and weaknesses.

**RQ4: How do psychologists and learners co-construct and negotiate the assessment process in the context of linguistic, social and cultural barriers during the administration of the ISZSP?**

Concerning the final research question, the current study found that dialogue is central to the co-construction of the assessment and meaning-making processes. With dialogue, the assessment process becomes more than a mere question-and-answer session. It was evident from the data that when both the psychologist and testee enter into dialogue,

the process shifts from a monologic state to become a dialogical process. During the administration of the ISZSP, the dialogical assessment process is co-constructed through communicative actions and elements. These communicative elements – both verbal and non-verbal – are key to dialogue (Bakhtin, 1981; Manganyi, 1981; Menkiti, 1984). They function as signals to either the psychologist or the testee that the presented utterance seeks addressivity and engagement in conversation (Bakhtin, 1981; Chovil, 1991; Holquist, 1983; Motta et al., 2013; Ooi, 2013).

The data collected for this study shows that there are instances when the authoritative discourse of the ISZSP is imposed on testees, forcing them to respond in ways that make Western voices and assumptions of what constitutes intelligence superior than the African worldviews. Notably, there were times when testees could assume authorship and express their views and bring forth new forms of meaning. When there was deviation from the monologic standardized administration of the ISZSP, the testees were given the platform to be heroes of the assessment activity by bringing forth context-specific voices. There are instances when testees were allowed to demonstrate their intellectual abilities by negotiating meaning and providing elaborate responses, other than the responses prescribed by the ISZSP.

isiZulu-speaking children are dialogical beings. In fact, dialogue in all human interaction is inevitable; it is the essence of being (Bakhtin, 1984; Gülerce, 2014). However, the ISZSP currently fails to embrace the dialogical nature of human functioning. It diminishes multi-voicedness and does not allow for assessment to take a dialogical form. It does not allow for a process that would assess isiZulu-speaking children in a manner similar to that which socially and culturally mediated the development of their intelligence. This makes it, in its current form, an inappropriate measure of intelligence for isiZulu-speaking children.

#### **8.4 The Significant Contributions of the Study**

This study is the first empirical study that has evaluated the ISZSP since its publication in 1990. This is a significant contribution because the ISZSP has not been updated since the publication of its English version, the SSAIS-R, in 1991. This implies that the issues of bias, equivalence and fairness that led to the revision and publication of the SSAIS-R still remain in the ISZSP. Additionally, the findings of this study have identified certain aspects of the language in the ISZSP that make the tool culturally and linguistically inappropriate for use with the current generation of isiZulu-speaking children.

The ethical code of practice and international guidelines of test use and those of the translation of tests require psychologists to evaluate translated intelligence assessment tools for currency and contextual relevance every decade (APA, 2010; HPCSA, 2006; ITC, 2001, 2013). This study is the first attempt in honouring this ethical obligation to ensure fairness and ethical practice (APA, 2010; HPCSA, 2006; ITC, 2013). The evaluation of the ISZSP was long over due since it has not been done in 26 years. This study found that isiZulu-speaking psychologists seem to detach themselves from their ethical and professional responsibility to develop and evaluate psychological tests. They seem to be content with using any tool that is available, even when they have found that tool to be inappropriate for the intended testees. This indicates the need for Black African psychologists to be more involved in research and to continuously assess their practices. As isiZulu-speaking psychologists share linguistic similarities with the target testees of the ISZSP, they should be at the forefront of efforts to evaluate and update the ISZSP. I acknowledge that they are trained and work primarily as clinicians, but that should not diminish their role of ensuring that the use of the ISZSP is appropriate and yields meaningful results that would not impact negatively on children's academic lives and careers. They are legally and ethically obliged to work with clients from culturally and linguistically diverse backgrounds in a manner that is free of any form of bias. This study is the first attempt to ensure that the ISZSP is free of cultural and linguistic bias against isiZulu-speaking children. This evaluation should continue periodically, and more isiZulu-speaking psychologists should be involved in further research and evaluation of the validity and contextual relevance of the ISZSP.

The second significant contribution of this study relates to research methodology. Traditionally, the evaluation of psychological tests commonly takes a quantitative approach, employing statistical convergent and discriminant validation as well as factorial validation (Drew & Rosenthal, 2003; Podsakoff et al., 2003). This study has contributed by being the first to adopt a qualitative, Bakhtinian dialogical approach to the evaluation of the ISZSP. The Bakhtinian approach to the evaluation of the ISZSP contributes to an in-depth understanding of language as a living, unfinalized product. This means that dialogue is always ongoing and open-ended – whether it is audible, visible or hidden. All forms of language are central to dialogue, whether spoken or written. This is one of the reasons why the evaluation of translated tests is essential. As language is a living product, more and more utterances can be added to it daily. Thus, language is not universal or hegemonic; it is context-specific and context-bound (Bakhtin, 1981; Fonseka, 2014; Holquist, 2002, 2014; Wertsch, 1990). This Bakhtinian evaluation of the ISZSP therefore contributes to the understanding that the language of this tool should be updated in order



to accommodate regional and social dialects of isiZulu, i.e., the living, currently spoken isiZulu.

Additionally, this is the first study to draw from Bakhtinian dialogical self theory in order to understand psychological assessment in culturally and linguistically diverse contexts in South Africa. By drawing on selected key concepts of Bakhtinian dialogism, the findings of the study contribute to an in-depth understanding the dialogical nature of all human functioning, including intellectual functioning (Bakhtin, 1981). This philosophical view of human functioning moves away from the Cartesian view of selfhood, and views the African self as a dialogical self (Mbiti, 1969; Menkiti, 1984; Mkhize, 2004; Okolo, 2003; Ramose, 2002; Zahan, 1979). It gives an understanding of selfhood **from homo vacuus to homo dialogicus**, i.e., from an individualized empty self to a dialogical self (Batory et al., 2010; Dickel & Reinhardt, 2013; Sidorkin, 1996). Therefore, I argue that the assessment of intellectual functioning of isiZulu-speaking children using the ISZSP should be a dialogical (not monological) process. During a monological assessment process, the psychologists are constrained in positions within limiting theoretical worldviews which only esteem Western values and assumptions about intelligence. In contrast, a dialogical assessment process is embedded within a framework which allows psychologists to recognise and respond to the testees' multiple voices. A dialogical assessment process would require that the assessment tool contain isiZulu that is living and contextually relevant. In that way, the process would fairly provide a platform for isiZulu-speaking children to engage in dialogue with testers, which would allow for the possibility for new meanings to emerge.

The current form and construction of the ISZSP does not allow for this. Notably, it does not yet seem reasonable to propose that standardized tests be entirely excluded from the assessment of intellectual functioning in isiZulu-speaking learners. It also does not seem reasonable, at this stage, to suggest that the psychometric approach be abandoned altogether. Rather, based on the findings of this study, dynamic assessment may be a useful supplement to the ISZSP as an approach that would provide isiZulu-speaking learners with an opportunity to demonstrate their intellectual functioning and learning potential in a manner that is not linguistically or culturally-biased. Dynamic assessment may assist psychologists in identifying important indicators and areas of need for further assessment that the ISZSP cannot in its current form.

### **8.5 Implications for Theory**

The findings of the current study have implications for theory. Since theories provide the frameworks for the construction of psychological tests, it is essential for those frameworks

to be relevant to the context of assessment and the testees' social, cultural and linguistic backgrounds (Kaufman, 2000). The ISZSP has been found to have been constructed in Wechsler's model, and it is infused with Western assumptions and beliefs of what intelligence is. As a result, the ISZSP is imbued in the authoritative discourse that is not in harmony with African views of intelligence. The current study found that some of the challenges that pose threats to the construct validity of the ISZSP are due to its construction that was informed by Western theories of intelligence.

This suggests an urgent need for Black African psychologists and similar minded academics to develop intelligence theories that attest to the contextual realities of the fellow African learners from which they will draw to develop relevant assessment measures. Black African psychologists should not be content with using Western derived intelligence tests for the assessment of Black African children when there is empirical evidence of the contrast between African and Western conceptions of intelligence (Cocodia, 2014; Furnham et al., 2004; Furnham et al., 2009; Grigorenko et al., 2001; Lima et al., 2002; Serpell, 1996; Sternberg, 2004; Wilson & Mujtaba, 2008; Wober, as cited in Berry & Dasen, 1974). Thus, theory building in Black African psychology should signify a need for a shift away from Western individualistic intelligence theories towards theories that prioritize mediation, situatedness, relationality, and dialogue. This would result in contextually relevant and meaningful psychological practice.

### **8.6 Implications for Practice**

Regarding practice, the findings of this study indicate the need for a new approach to the administration of the ISZSP. These findings suggest that the administration of the ISZSP should be bilingual. It should allow isiZulu-speaking children and psychologists to code switch because their daily linguistic behaviour involves isiZulu-English code switching (Magagula, 2009; Ndimande-Hlongwa & Ndebele, 2014). They should be provided a space to use both their active language systems to demonstrate their true intellectual abilities. This would render the ISZSP responsive to the linguistic needs of isiZulu-speaking children of the current generation. Therefore, as code switching is a common and regular linguistic behaviour among isiZulu bilinguals, bilingualism should be recognized in current and future test development, test administration, test scoring and test interpretation processes. Moreover, test documentation, i.e., administration and scoring manuals, should be published bilingually. This would address, in part, power relations and the dominance of one language over another. In addition to accommodating isiZulu-English bilingualism, the accommodation of dialectal variations of isiZulu in the ISZSP and during its

administration would be as equally important for addressing linguistic challenges faced during the assessment of isiZulu-speaking learners.

IsiZulu-speaking psychologists have found themselves in an ethical dilemma following the deviation from the standardized administration of the ISZSP to dynamic assessment. This deviation, undoubtedly, invalidates the scores that testees obtain. The participants in this study acknowledged this ethical dilemma. To ensure ethical practice in terms of the ethics codes for test use, the solution would be to adhere to the standardized administration of the ISZSP. This, however, has been shown to be unjust and not in the best interest of the testee. This implies that psychologists using the ISZSP ought to engage urgently in research and dialogue with the aim of updating and improving the administration standards of the ISZSP to permit a dynamic approach. This would also allow for the social negotiation and co-construction of knowledge during the assessment process.

The ramifications of not having evaluated the ISZSP in 26 years are dire. For over two decades, some isiZulu-speaking children have been unfairly assessed with a tool that has cultural and linguistic bias, with undesirable implications for their academic and career lives. It is therefore very important for psychologists to honour their ethical obligation to evaluate translated intelligence tests. It is equally important for psychologists to also document, as evidence, the challenges that they experience regarding the in/appropriateness of the assessment tools they use, as well as ways in which they have adapted their practices to address those challenges.

The findings of this study also indicate implications for the training of psychologists. Psychologists should be trained extensively in the administration of intelligence tests. This training should include more than learning to administer and score psychological tests. It should include training in test construction and development, adaptation and evaluation. The administrative and theoretical approaches to assessment should also be included. It seems unfair to expect them (psychologists) to comply with all the codes of ethics when they have not been adequately equipped with all the necessary skills to do so. Psychological assessment is a conceptual process that involves complex skills and procedures that generate an integrated and comprehensive understanding of the testee. The training of psychologists therefore should pay close attention to all the subtleties of the assessment process, especially in culturally and linguistically diverse contexts, under close supervision.

### **8.7 Limitations of the Study**

This study was located in the province of KwaZulu-Natal only. Eight provinces of the country were not represented in the sample. Additionally, because of the small sample size, the findings are not generalizable. The findings of this study can only be transferable to isiZulu-speaking children and psychologists in KwaZulu-Natal who have similar characteristics, practices, and live in similar contexts as those of the participants. The findings may not be generalizable or transferable to bi/multilingual isiZulu-speaking children and psychologists who reside in other provinces. Their speech acts and linguistic behaviour may not be limited to isiZulu-English or isiZulu-Afrikaans code switching. They may speak other African languages as well, such as Sepedi, Sesotho, Xitsonga, etc. Their cultural practices and ways of knowing may be similar to or different from the ones practised by those in KwaZulu-Natal.

The sample of psychologists consisted of females only. This is owing mainly to the great number of female psychologists in the profession. At the time of this study, 70.5% of registered Black African psychologists in KwaZulu-Natal were female (HPCSA, 2016). Thus, the data and findings of the study do not feature voices of male psychologists. Moreover, learners aged 15-17 years were over-represented, and learners from urban areas were under-represented in the sample. The participation of younger children and those from urban areas may have added significant data and findings. In some expert review reports, psychologists indicated that at times younger children, as well as children from rural and urban areas, have different experiences with the ISZSP. It would have contributed significantly to capture those differences in the video recordings.

Another limitation regarding the sample is that test developers were not included in this study. Their views regarding the appropriateness of the ISZSP would have been valuable. My attempts to reach out to them and gain access to Part I Manual were not successful. It would be helpful to include them in future evaluations of the ISZSP.

### **8.8 Recommendations for Future Research and the Revision of the ISZSP**

In order to obtain an IQ score that reflects the true abilities of isiZulu-speaking children, the construction and the language of the ISZSP needs to be revised. The construction of the ISZSP needs to be revised in a manner that acknowledges the culture of the Zulus; i.e., their values, ways of knowing, ways of doing, and beliefs about intelligence. This should be reflected in all its test items, which should exclude Western cultural practices, lifestyles, events and ways of doing.

A number of challenges that emerge during the administration of the ISZSP are owing to the test's inability to accommodate social and regional variations of isiZulu. These challenges seem to stem mainly from the dictionary form and archaic nature of the language of the ISZSP, which is different from the current spoken isiZulu. Thus, the language of the ISZSP needs to be revised and updated through a large-scale evaluation, re-norming and re-standardization. This can employ a mixed-methods research design to qualitatively update the test, and statistically ensure its construct validity. The element of code switching should be included in the standardization process as it would accommodate bilingual isiZulu-speaking children. It would also have a significant impact on test administration and test results to the point where bilingual norms would be available for scoring and interpretation. It is my recommendation that this process should involve isiZulu-speaking children in all nine provinces to account for regional dialects of isiZulu.

In this thesis, I have argued for the assessment of intellectual functioning of isiZulu-speaking children to be a dialogical process. I have suggested a move away from the Piagetian psychometric assessment of intelligence towards a Vygotskian dynamic approach to assessment. Thus, I recommend for future research to explore the possibility and practicality of this shift in terms of practice and test development.

## **8.9 Concluding Remarks**

This study qualitatively evaluated the appropriateness of the ISZSP for its target population. The aim was to identify issues, if any, of cultural and linguistic inappropriateness/bias that might impede on the assessment of isiZulu-speaking children. Dialogism provided a framework for this evaluation, which paid careful attention to the language of the ISZSP and the process of its administration. This study found that psychologists view the ISZSP as inappropriate for assessing the current generation of isiZulu-speaking children. They identified challenges pertaining to the tests' archaic language and culturally irrelevant test items. These tend to confuse the assessed children, and has implications on the final IQ score they obtain. The findings of the study pointed to the need for Black African psychologists who assess Black African learners to take more responsibility for ensuring a fair assessment process that is free from cultural and linguistic bias. There is also a need for them to involve themselves in research and share their experiences in order to inform evidence-based practice.

Owing to the dialogical nature of human beings, the process of assessing intellectual functioning needs to take a dialogical shape. This also needs to be well-informed by theories and worldviews that move away from understanding human existence and functioning from the Cartesian and Piagetian perspectives. The process needs to be framed within theories that allow for the dialogicality of the African self to feature without obstructions. Currently, the the ISZSP is monolingual and Piagetian in its form. Thus, this study has recommended a further large-scale evaluation and revision of the ISZSP. It is envisaged that re-norming and re-standardizing the ISZSP would result in fair culturally and linguistic appropriate assessment of isiZulu-speaking learners in the future.

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## Appendices

### Appendix 1: Incwadi yemininingwane nemvume enolwazi: Ukubuyekeza okwenziwa ngochwepheshe



Isihloko Somklamo: Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo

[usuku]

Sawubona Mhlanganyeli

Igama lami ngingu-Phindile Mayaba. Ngenza izifundo ze-PhD eNyuvesi yaKwaZulu-Natali (UKZN). Njengengxenywe yezifundo zami, ngenza ucwaningo oluhlola ukufaneleka ngokwamasiko nolimi kwe Individual Scale for Zulu-Speaking Pupils (ISZSP). I-ISZSP iyithuluzi elihunyushiwe lokuhlola ukusebenza ngokwengqondo kwezingane kusuka kwiminyaka engu 9, izinyanga ezingu 0 kuya kwiminyaka engu 19, izinyanga ezingu 11. Ngicela ukuba ubambe iqhaza kulolu cwaningo, okuyinto eyosiza ekuqinisekiseni ukuhlolwa ngokwengqondo okuhle okungenaphutha ngokwamasiko nolimi kwabafundi ulimi lwabo lwasekhaya luyisiZulu esikhathini esizayo.

Wena ukhethwe ngenxa yesipiliyoni sakho ekuhloleni ukusebenza kwengqondo usebenzisa kokubili SSAIS / SSAIS-R kanye ISZSP ngaphambi kulolu cwaningo; futhi usuke wawasebenzisa omabili lama mathuluzi okungenani izikhathi ezinhlano emsebenzini wakho. Futhi ukhethiwe ngoba ungumnikazi / uyithola kalula isethi ye-ISZSP.

Kubalulekile ukuqaphela ukuthi iqhaza lakho kulolu cwaningo kuyinto yokuzithandela futhi ngeke uphoqwe ukuba ubambe iqhaza. Uyakhuthazwa ukuthi ukukhulume ngokukhululekile. Ukhululekile futhi ukulushiya lolu cwaningo noma nini uma ufisa, ngaphandle kwemiphumela engemihle. Imininingwane emayelana nawe ngqo izohlala iyimfihlo ngaso sonke isikhathi ngokungayivezi encwadini yeziqu zobudokotela ukuthi ngeke ishicilelwe emaphepheni azobhalwa ngalolu cwaningo.

Ukubamba iqhaza kulolu cwaningo kusho ukuthi wena uyilungu leqembu lochwepheshe kwezokusebenza kwengqondo abazohlola izivivinywana (*subtests*) esikalini samazwi kanye nolimi kule ISZSP. Lokhu kungabandakanya ulimi kumagama emibuzo, izimpendulo ezilindeleke kanye nemiyalelo ekwibhukwana le ISZSP. Uzocelwa ukuba ubuyekeze i-ISZSP ngokwemigomo kuyafaneleka ngokwamasiko nokuphathelene nolimi ekuhlolweni abafundi abanolimi lwasekhaya oluyisiZulu.

Isiqondiso (*guide*) sokuhlola i-ISZSP senziwe, uzonikezwa sona ukukuqondisa ekuhloleni kanye nasekubhaleni umbiko. Uyacelwa ukuthi lo mbiko ulotshwe noma ubhalwe ngolimi lwesiZulu, nokho, uvumelekile ukubhala ngesiZulu nangesiNgisi uma unesifiso ukubhala ngezilimi ezimbili.

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Uzonikezwa amasonto/amaviki angu-10 okubuyekeza ISZSP bese ubhala umbiko ongamakhasi angu-10, uthumele umbiko kimi, umcwaningi, nge imeyili (*incwadi yomoya ethunyelwa nge khompyutha*), ungakedluli umhla ka \_\_\_\_\_ (usuku) \_\_\_\_\_ (inyanga) \_\_\_\_\_ (unyaka).

Uma umcwaningi esehlaziye yonke imibiko, uyobe esehlala imihlangano yokulandela nazo zonke izazi nochwepheshe kwezokusebenza kwengqondo ababambe iqhaza kulolu cwaningo ukuqinisekisa ukuthi imiphumela ukuthi ingakho na bese efuna incazelo lapho kunesidingo khona.

Ukukhombisa ukwazisa isikhathi sakho ozobukeza ngaso i-ISZSP nokubhala umbiko wobuchwepheshe, uzokwamukeliswa isipho sika R 2,000.00 uma umbiko wakho usutholiwe ngumcwaningi. Amalungiselelo kanye nezindaba zokuphatha ezihlobene nokukhokha kuzophothulwa ngosuku lomhlangano wokulandelela.

Yonke imininingwane engahlaziyiwe yalolu cwaningo izotholwa ngumcwaningi futhi itholakale kumcwaningi osebenza kulo mklamo kanye nomqondisi wakhe. Okutholakele ocwaningweni kungase kwethulwe ezingqungqutheleni, futhi kungase kusetshenziselwe ukubhala i-athikhile ye jenali (*i-journal article: iphepha lephephabhuku lezocwaningo*). Imininingwane ingase futhi isetshenziselwe ucwaningo lwesikhathi esizayo. Njengoba kushiwo ngenhla, kukho konke lokhu, ubuwena buzohlala buyimfihlo. Esikhundleni sokukhuluma ngmbiko wakho ngegama lakho, kuzokwenziwa inombolo yabelwe umbiko wakho wobuchwepheshe (*expert review report*), isibonelo, ERR01 (*i.e., Expert Review Report 1 – yombiko wobuchwepheshe 01*).

Yonke imininingwane izogcinwa isikhathi seminyaka emihlanu ekhabetheni elikhiywayo ehhovisi lomcwaningi, kanjalo nakho konke okukhona okuphathelele nalolu cwaningo. Amakhophi emininingwane e-elektronikhi (*ngokukagesi okwikhompyutha*) azogcinwa kwifayela ngekhodi ne phasiwedi (*amagama noma izinombolo eziyimfihlo ezivumela kuphela labo abanelungelo ukuba babone ifayela*) ephephile. Ukuze ubuwena bugcinwe buyimfihlo, yonke imininingwane izogcinwa ngokwehlukile kulwazi olungaxhumanisa yona negama lakho langempela.

Uma unemibuzo othanda ukuyibuza, wamukelekile ukuthi uthinte mina, umcwaningi, kanye/noma umqondisi wami, u-Solwazi NJ Mkhize ngokusebenzisa imininingwane ezansi kwekhasi. Ungakwazi futhi ukuthinta uNksz Phume Ximba we Humanities and Social Science Research Ethics Committee ngocingo ku (031) 260 3587 noma imeyili ku [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Ngiyabonga isikhathi sakho nokubamba iqhaza. Manje ngicela ukuba ugcalise ifomu lemvume elinamathiselwe.

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### Imvume Enolwazi: Ochwepheshe Kwezokusebenza Ngengqondo

Ngiyavuma ukubamba iqhaza kulolu cwaningo olusihloko esithi: “Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwazinga Lesimo”. Ngichazelwe ngenhloso yalolucwaningo ngomlomo nangokubhalwe phansi. Ngibenalo ithuba lokufunda ngiqondisise incwadi yemininingwani engiyinikiwe, ngizigcinele yona ukuba ibe ulwazi lwami, futhi ngibe nalo nethuba lokufuna incazelo yanoma iyiphi indaba.

Ngiyaqonda ukuthi yini elindeleke kimi ngokwemibandela yokubamba kwami iqhaza kanye nokuzinikela ngokwesikhathi kulolu cwaningo. Ngiyaqonda ukuthi ukubamba kwami iqhaza kuyinto yokuzithandela futhi ngiyazi ukuthi ngingalushiya lolu cwaningo nganoma yingasiphi isikhathi, ngaphandle kwemiphumela engemihle. Ngiyaqonda ukuthi imininingwane izogcinwa ngokuphepha iminyaka emihlanu kanti ingase isetshenziselwe ucwaningo esikhathini esizayo. Ngiyaqonda ukuthi izinyathelo zizothathwa ukuqinisekisa ukuthi ubumina nemininingwane emayelana nami ngqo ivikelwe kanye neqhaza lami kulolu cwaningo luyoba imfihlo ngokuphelele kulokhu. Ngiyaqonda ukuthi akukho okwazisa ngami ngqo okuzoshicilelwa.

Nginayo imininingwane yokuthinta umcwaningi uma kwenzeka ngiba neminye imibuzo mayelana nocwaningo.

\_\_\_\_\_  
Igama likaMhlanganyeli

\_\_\_\_\_  
Isignesha kaMhlanganyeli  
Inombolo ye-telephone: \_\_\_\_\_

\_\_\_\_\_  
Usuku  
Inombolo ye-cell phone: \_\_\_\_\_

\_\_\_\_\_  
Isignesha kaMcwaningi

\_\_\_\_\_  
Usuku

### Imvume Enolwazi: Umbiko Ngokubuyekeza Okwenziwe Ngochwepheshe

Ngiyaqonda ukuthi njengombambi-qhaza kulolu cwaningo olusihloko esithi: “Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: InhlaziyoNgokwazinga Lesimo”, Ngilindeleke ukuthi ngibuyekeze/ngihlale i-ISZSP bese ngithumela nge imeyili umbiko wokubuyekeza kumcwaningi esikhathini esingamaviki awu-10, ngamanye amazwi, ungakedluli umhla ka \_\_\_\_\_ (usuku) \_\_\_\_\_ (inyanga) \_\_\_\_\_ (unyaka). Isiqondiso sokuhlola ngisnikeziwe ukungiqondisa ekuhloleni i-ISZSP kanye nasekubhaleni umbiko

Ngiyavuma ukubhala umbiko wokubuyekeza njengoba kulindelekile kimina futhi ngiyavuma ukuthumela umbiko kumcwaningi kusenesikhathi.

\_\_\_\_\_  
Igama likaMhlanganyeli

\_\_\_\_\_  
Isignesha kaMhlanganyeli  
Inombolo ye-telephone: \_\_\_\_\_

\_\_\_\_\_  
Usuku  
Inombolo ye-cell phone: \_\_\_\_\_

\_\_\_\_\_  
Isignesha kaMcwaningi

\_\_\_\_\_  
Usuku



## Appendix 2: Information letter and informed consent: Expert reviews (English version)



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

[date]

Greetings Participant

My name is Phindile Mayaba. I am a PhD student at the University of KwaZulu-Natal (UKZN). As part of my degree, I am conducting a qualitative study evaluating the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP). The ISZSP is a translated tool for assessing intellectual functioning of children whose age ranges from 9 years, 0 months to 19 years, 11 months. I would like to ask you to participate in this research, which will aid in ensuring fair linguistically and culturally appropriate intellectual assessment of isiZulu-speaking learners in the future.

You have been selected because of your experience in assessing intellectual functioning using both the SSAIS/SSAIS-R and the ISZSP prior to this study; and you have administered both these assessment tools at least five times in your practice. You have also been selected because you own/have easy access to the ISZSP kit.

It is important to note that your participation in this research is voluntary and you will not be forced to participate. You are encouraged to express yourself freely. You are also free to leave the study at any time if you wish, without any negative consequences. Your identity will be kept confidential at all times by not mentioning your name in the doctoral thesis and papers that will be published from this study.

Participating in this study would mean you are part of a group of expert psychologists who will do an evaluation of subtests of the verbal scale and the language in the ISZSP. This may include the language in question wording, expected answers and instructions in the manual of the ISZSP. You will be asked to review the ISZSP in terms of its cultural and linguistic appropriateness for assessing isiZulu mother tongue children.

An evaluation guide has been provided to guide you in the evaluation and writing of the report. It is requested that the report be written in isiZulu, however, code-switching between English and isiZulu is permissible should you wish to write bilingually.

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#### Discipline of Psychology

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**Website:** [psychology.ukzn.ac.za](http://psychology.ukzn.ac.za)

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You will be given 10 weeks to review the ISZSP and compile a 10 page report and email the report to me, the researcher, by \_\_\_\_\_ (day) \_\_\_\_\_ (month) \_\_\_\_\_ (year).

Once the researcher has analysed all the reports, she will arrange for a follow-up meeting with all the participating psychologists to verify the findings from the expert review reports and seek clarity where necessary.

To show appreciation for your time spent reviewing the ISZSP and writing the expert review report, you will receive a token of R 2,000.00 once the review report has been received by the researcher. Arrangements and administrative issues related to payment will be finalized on the day of the follow-up meeting.

All the raw data for the study will be available to and from the researcher working on the project and her supervisor. The findings of the study might also be presented at conferences, and they might be used to write a journal article. The data may also be used in future research. As mentioned above, in all of these, your identity will be kept confidential. Instead of referring to your report by your name, a number will be assigned to your expert review report, e.g., ERR01 (*i.e.*, *Expert Review Report 1 – for expert review report 01*).

All data will be stored for a period of five years in a locked cabinet in the researcher's office, as will any other materials relating to this research. Electronic copies of data will be kept in an encrypted file with a secure password. To keep your identity confidential, all data will be stored separately from information which links it to your actual name.

If you have any questions you would like to ask, you are welcome to contact me, the researcher, and/or my supervisor, Prof. N.J. Mkhize by using the details at the bottom of the page. You may also contact Ms Phume Ximba of the Humanities and Social Science Research Ethics Committee via phone (031) 260 3587 or email [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Thank you for your time and participation. I now invite you to complete the attached consent form.

Sincerely,

Ms Phindile Mayaba  
Researcher, PhD Student  
Discipline of Psychology, UKZN  
Email: [Mayabap@ukzn.ac.za](mailto:Mayabap@ukzn.ac.za)  
Telephone number: (033) 260 5364

Prof. N.J. Mkhize  
PhD Research Supervisor  
Discipline of Psychology, UKZN  
Email: [Mkhize@ukzn.ac.za](mailto:Mkhize@ukzn.ac.za)  
Telephone number: (031) 260 2006

### **Informed Consent: Experts Psychologist**

I hereby agree to participate in this study titled: "The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis". The purpose of the study has been explained to me both in writing and verbally. I have had an opportunity to read and understand the information letter given to me, which I have kept for my own information, and have had the opportunity to seek clarification on any issues.

I understand what is expected of me in terms of my participation in this study and the time commitment I am making to participate in this study. I understand that my participation is voluntary and I know that I may withdraw from the study at any point, without negative consequences. I understand that data will be stored securely for five years and might be used for future research. I understand that measures will be taken to ensure that my identity is protected and my participation in this research will be completely confidential in this regard. I understand that no identifying information about me will be published.

I have the contact details of the researcher should I have any more questions about the research.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

Telephone number: \_\_\_\_\_

Cell phone number: \_\_\_\_\_

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

### **Informed Consent: Expert Review Report**

I understand that as a participant in the study titled: "The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis", I am expected to review the ISZSP and email a review report to the researcher in a period of 10 weeks, i.e., by \_\_\_\_ (day) \_\_\_\_ (month) \_\_\_\_ (year). An evaluation guide has been provided to me to guide the review of the ISZSP and the writing of the report.

I consent to writing the review report as expected and I consent to submitting the report timeously to the researcher.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

Telephone number: \_\_\_\_\_

Cell phone number: \_\_\_\_\_

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

### Appendix 3: Isiqondiso sokuhlola: Ukubeyekeza okwenziwa ngochwepheshe



Isihloko Somklamo: Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo

[usuku]

Mhlanganyeli Othandekayo

Uyacelwa ukuba uhlole ukuthi i-Individual Scale for Zulu-Speaking Pupils (ISZSP) iyafaneleka ngokwamasiko nokuphathelene nezilimi uma isetshenziselwa ukuhlola abanolimi lwasekhaya oluyisiZulu. Uyacelwa ukuba ubhekisise lesi sivivinyo ngokucophelela bese uchaza ngombiko obhaliwe ongamakhasi angu-10 ukuthi abasunguli/abashicileli be-ISZSP bakucabange kanjani lokhu okulandelayo:

- Abasunguli/abashicileli besivivinyo kufanele baqinisekise ukuthi inqubo yokuthathela (*adaptation*) ibhekelela ngokugcwele ukwehluka ngokolimi nangokwamasiko phakathi kwabantu abahloselwe isivivinyo noma ithuluzi elithathelwe (*adapted*).
- Abasunguli/abashicileli besivivinyo kufanele banikeze ubufakazi bokuthi ulimi olusetshenziswe kwizinkomba, ama-rubhrikhi, kanye nama-ayithemu esivivinyo kanjalo nakubhukulwazi (*manual*) lufanelekile ngokwamasiko nolimi lwabo bonke abantu abahloselwe lesi sivivinyo noma ithuluzi.
- Ibhukulwazi kumele licacise yonke imidanti emayelana ne-administreyishini (*administration – indlela yokusetshenziswa kwethuluzi lokuhlola ngesikhathi sokuhlola*) edinga ukuhlaziywa kumongo (*context*) omusha wezamasiko.
- Lapho isivivinyo noma ithuluzi lithathelwe (*adapted*) ukusetshenziswa kwabanye abantu, imibhalo yezinguquko kumele ihlinzekwe, ihlanganiswe nobufakazi bokulinganisa emiholweni (*equivalence*).

[*International Test Commission Guidelines for Translating and Adapting Tests (ITC, 2010)*]

Uma usubhala umbiko wakho, uyacelwa ukuba uphendule le mibuzo elandelayo – khombisa isipiliyoni sakho ekusebenzeni kwakho, futhi unanele ngeziqondiso ezibalwe ngenhla.

1. Ithini imibono yakho mayelana nokuhunyushwa kwe ISZSP?

1.1 Ngabe lokhu kuhunyushwa kufanelekile?

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2. Uyacelwa ukuba wabelane ngombono wakho mayelana nokufaneleka kanye nokubaluleka kwezakhiwo ezilandelayo kubantu abahloselwe futhi abasetshenziselwa i-ISZSP:
  - 2.1 Ulimi. Iziphi izindlela olufaneleke ngazo? Nikeza izibonelo.
  - 2.2 Imiyalelo. Iziphi izindlela efaneleke ngazo? Nikeza izibonelo.
  - 2.3 Ama-ayithemu (*items – izinto ezimi ngazinye ngaphakathi kwisivivinyo*) esivivinyo. Iziphi izindlela afaneleke ngazo? Nikeza izibonelo.
  - 2.4 Ama-rubhrikhi (*rubrics – amazanga okukala ukwenza/ukusebenza kwabantu abathile ekuhlolweni*) nezinqubomgomo zokuzuziweyo. Iziphi izindlela okufaneleke ngazo? Nikeza izibonelo.
3. Ingabe i-ISZSP uyiphatha/uyethula ngokuqinile ngesiZulu (ngolimi olulodwa kuphela)?
  - 3.1 Uwasebenzisa kanjani onke amagama akubhukulwazi lokuphatha/lokuthuka? Ngicela unikeze izibonelo.
4. Ungathi yiziphi izinto ezinhle nge-ISZSP ngobunjalo bayo okwamanje?
5. Yini osuke wayibona ongayiphawula njengezinsalelo ezibhekene nabafundi olimi lwabo lasekhaya luyisiZulu ekuqondisiseni ulimi olusetshenziswe kwi-ISZSP?
  - 5.1 Iziphi izinsalelo ezimayelana nolimi osuke wabhekana nazo lapho wethula i-ISZSP kubafundi olimi lwabo lasekhaya luyisiZulu?
6. Ngabe lama fekhtha (*factors – izinto eziba nomthelela ngendlela ethize kwezinye*) alandelayo aphilene namasiko nezolimi anomthelela onjani ekusetshenzisweni kwe-ISZSP ezinganeni ezikhuluma isiZulu?
  - 6.1a Ama fekhtha amasiko: amagugu, izindlela zokwazi, kanye nezitayela/nezindlela zokuxhumana.
  - 6.1b Ama fekhtha ezolimi: izimfuno zolimi (ngamanye amazwi, inani lamakhono okukhuluma izilimi ezidingwa izivivinyo kanye nezivivinywana ezihlola ukuhlakanipha ngokwemigomo yokukhuluma, ukulalela uqondisise, ukufunda kanye nokubhala), ubungoti kwezolimi, ukuqonda ulimi lwethuluzi lokuhlola.
  - 6.2 Ngabe akhona yini amanye ama fekhtha, ngaphezu kwalawa angenhla, anomthelela ekusetshenzisweni kwe-ISZSP ezinganeni ezikhuluma isiZulu?
  - 6.3 Usuke wabhekana kanjani nalama fekhtha? Ngicela uhlinzeke izibonelo ezithize lapho uke waba neyodwa noma ngaphezulu yalezi zinsalelo nokuthi wabhekana kanjani nazo.
7. Iziphi izincomo ongakwazi ukuzinikeza/ukuzihlongoza mayelana nokubhekana nezinsalelo lezi ozibalule emiBuzweni 2, 5 kanye no 6?
  - 7.1 Ngabe uke wabhala, njengobufakazi, izinsalelo mayelana nokufaneleka/nokungafaneleki kwe-ISZSP lezi ozibalulile, kanye izindlela wena othathele/ogqule ngazo ukusebenza kwakho ukuze ubhekane zinsalelo?

**Nginyabonga ukuthi uthathe isikhathi sakho ukuze ubuyekeze bese uyabika mayelana nokufaneleka ngokwamasiko nangokuphathelene nezilimi kwe-Individual Scale for Zulu-Speaking Pupils (ISZSP) uma isetshenziselwa ukuhlola abafundi abanolimi lwasekhaya oluyisiZulu.**

**Uyacelwa ukuba uthumele umbiko wakho nge imeyili ku [MayabaP@ukzn.ac.za](mailto:MayabaP@ukzn.ac.za) kungakedluli umhla ka \_\_\_\_\_ (usuku) \_\_\_\_\_ (inyanga) \_\_\_\_\_ (unyaka).**

## Appendix 4: Evaluation guide: Expert review (English version)



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

[date]

Dear Participant

Please examine the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP) when assessing isiZulu mother tongue learners. Please go through the test carefully and describe in a 10-page written report how the developers/publishers of the ISZSP have taken into consideration the following:

- Test developers/publishers should ensure that the adaptation process takes full account of linguistic and cultural differences among the populations for whom adapted versions of the test or instrument are intended.
- Test developers/publishers should provide evidence that the language use in the directions, rubrics, and items themselves as well as in the handbook (manual) are appropriate for all cultural and language populations for whom the test or instrument is intended.
- The test manual should specify all aspects of the administration that require scrutiny in a new cultural context.
- When a test or instrument is adapted for use in another population, documentation of the changes should be provided, along with evidence of the equivalence.

*[International Test Commission Guidelines for Translating and Adapting Tests (ITC, 2010)]*

In writing your report, please answer the following questions – reflecting on your experience in practice, as well as making reference to the guidelines listed above.

1. What are your views regarding the translation of the ISZSP?
- 1.2 Is the translation appropriate?

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2. Please share your opinion on the appropriateness and relevance of the following properties for the population for whom the ISZSP is intended and used:
  - 2.1 Language. In what ways is this appropriate? Give examples.
  - 2.2 Instructions. In what ways is this appropriate? Give examples.
  - 2.3 Test items. In what ways is this appropriate? Give examples.
  - 2.4 Rubrics and scoring criteria. In what ways is this appropriate? Give examples.
3. Do you administer the ISZSP strictly in isiZulu (monolingually)?
  - 3.1 How do you use all the words in the administration manual? Please give examples.
4. What would you say are the main strengths of the ISZSP in its current form?
5. What have you observed to be challenges faced by isiZulu mother tongue learners in understanding the language used in the ISZSP?
  - 5.1 What challenges related to language have you faced when administering the ISZSP to isiZulu mother tongue learners?
6. How do the following cultural and linguistic factors have a bearing on the use of the ISZSP for Zulu-speaking children?
  - 6.1a Cultural factors: values, ways of knowing, and styles of communication.
  - 6.1b Linguistic factors: linguistic demand (i.e., the amount of linguistic skills required by tests and sub-tests of intelligence in terms of speaking, listening comprehension, reading and writing), proficiency, understanding of the language of the assessment tool.
  - 6.2 Are there any other factors, in addition to the above, that have a bearing on the use of the ISZSP for Zulu-speaking children?
  - 6.3 How have you dealt with each of these factors? Please provide specific examples where you have had one or more of these challenges and how you addressed them.
7. What recommendations can you suggest to address challenges that you have identified in Questions 2, 5 and 6?
  - 7.1 Have you documented, as evidence, the challenges regarding the in/appropriateness of the ISZSP that you have identified, as well as ways in which you have adapted your practice to address these challenges?

**Thank you for taking time to review and report on the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP) when assessing isiZulu mother tongue learners. Please email your report to [MayabaP@ukzn.ac.za](mailto:MayabaP@ukzn.ac.za) by \_\_\_\_\_ (day) \_\_\_\_\_ (month) \_\_\_\_\_ (year).**

## Appendix 5: Ethical clearance



15 September 2014

**Ms Phindile Lungile Mayaba (201500322)**  
**School of Applied Human Sciences – Psychology**  
**Pietermaritzburg Campus**

**Protocol reference number: HSS/1051/014D**

**Project title: The cultural and linguistic appropriateness of the Individual Scale for Zulu-speaking pupils: A qualitative analysis**

Dear Ms Mayaba,

### **Full Approval – Expedited Application**

In response to your application received on 25 August 2014, 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)

/ms

Cc Supervisor: Professor Nhlanhla Mkhize  
Cc Academic Leader Research: Professor D McCracken  
Cc School Administrator: Ms Ausie Luthuli

---

**Humanities & Social Sciences Research Ethics Committee**

**Dr Shenuka Singh (Chair)**

**Westville Campus, Govan Mbeki Building**

**Postal Address: Private Bag X54001, Durban 4000**

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**Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)**

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**Founding Campuses:** Edgewood Howard College Medical School Pietermaritzburg Westville



## Appendix 6: Permission to recruit learners in school premises: Department of Education



education

Department:  
Education  
PROVINCE OF KWAZULU-NATAL

Enquiries: Sibusiso Alwar

Tel: 033 341 8610

Ref.:2/4/8/153


Ms P Mayaba  
University of KwaZulu-Natal  
Golf Road  
Scottsville  
3209

Dear Ms P Mayaba

### PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **"THE CULTURE AND LINGUISTIC APPROPRIATENESS OF THE INDIVIDUAL SCALE FOR ZULU-SPEAKING PUPILS: A QUALITATIVE ANALYSIS"**, in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 01 June 2014 to 30 May 2015.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Mr. Alwar at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report / dissertation / thesis must be submitted to the research office of the Department. Please address it to The Director-Resources Planning, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education



**Nkosinathi S.P. Sishi, PhD**  
**Head of Department: Education**  
**Date: 11 June 2014**

KWAZULU-NATAL DEPARTMENT OF EDUCATION

POSTAL: Private Bag X 9137, Pietermaritzburg, 3200, KwaZulu-Natal, Republic of South Africa  
PHYSICAL: 247 Burger Street, Anton Lembede House, Pietermaritzburg, 3201. Tel. 033 392 1004 Fax : 033 392 1203  
EMAIL ADDRESS: [kehlogile.connie@kzndoe.gov.za](mailto:kehlogile.connie@kzndoe.gov.za); CALL CENTRE: 0860 596 363;  
WEBSITE: [www.kzneducation.gov.za](http://www.kzneducation.gov.za)

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beyond the call of duty

## Appendix 7: Access for recruiting learners in school premises: Principals



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

[date]

Dear Sir/ Madam,

### Access for Recruiting Learners in the School Premises

My name is Phindile Mayaba. I am a PhD student at the University of KwaZulu-Natal (UKZN). As part of my degree, I am conducting a qualitative study evaluating the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP). The ISZSP is a translated tool for assessing intellectual functioning of children whose age ranges from 9 years, 0 months to 19 years, 11 months. I seek access to recruit learner in your school to participate in this research. The purpose of this research is to aid in ensuring fair linguistically and culturally appropriate intellectual assessment of isiZulu-speaking learners in the future.

The Department of Education has granted me permission to recruit learners in school premises. The letter granting permission is attached for your perusal.

Learners will be recruited in this manner: Classroom announcements will be arranged in consultation with teachers. The announcements will be brief and should not be disruptive to classroom schedules. The learners will be given a brief description of the study and what participation will entail, and will be asked if they would like to participate in the study at a later date. Names, age, and contact details of learners that indicate interest to participate will be taken. Learners under the age of 18 years will be given parental consent forms to take home to their parents.

The learners whose parents agree for them to take part in the study will be asked to bring the parental consent forms with them on the day that will be indicated by the researcher. Participants will be recruited from the consent forms indicating permission given by parents.

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#### Discipline of Psychology

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**Website:** [psychology.ukzn.ac.za](http://psychology.ukzn.ac.za)

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No information regarding you or your school will be inquired or disclosed in this study. The identity of the school will be kept confidential and will not be mentioned in any documentation. All documents with the name of the school will be kept separately and will not be linked to the data in any way.

Thank you for your time and for allowing me access to your school.

If you have any questions you would like to ask, you are welcome to contact me, the researcher, and/or my supervisor, Prof. N.J. Mkhize, by using the details below. You may also contact Ms Phume Ximba of the Humanities and Social Science Research Ethics Committee via phone (031) 260 3587 or email [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Sincerely,

Ms Phindile Mayaba  
Researcher, PhD Student  
Discipline of Psychology, UKZN  
Email: [Mayabap@ukzn.ac.za](mailto:Mayabap@ukzn.ac.za)  
Telephone number: (033) 260 5364

Prof. N.J. Mkhize  
PhD Research Supervisor  
Discipline of Psychology, UKZN  
Email: [Mkhize@ukzn.ac.za](mailto:Mkhize@ukzn.ac.za)  
Telephone number: (031) 260 2006

----- Tear here -----

### Access to Recruit Learners in the School Premises

I hereby allow Ms Phindile Mayaba access to the school to recruit learners as research participants for her qualitative study on the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils. I have had an opportunity to read and understand the letter given to me, as well as the letter from the Department of Education granting permission for this process.

The purpose of the study has been explained to me. I understand how the learners will be recruited for this study. I understand that data will not be collected within the school premises. I understand that no information regarding the school will be inquired or disclosed in this study, and that the identity of the school will be kept confidential.

\_\_\_\_\_  
Name of School

\_\_\_\_\_  
Signature of Principal

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

## Appendix 8: Incwadi yemininingwane nemvume enolwazi: Abazali



Isihloko Somklamo: Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo

[usuku]

Mzali Othandekayo

Igama lami ngingu-Phindile Mayaba. Ngenza izifundo ze-PhD eNyuvesi yaKwaZulu-Natali (UKZN). Njengengxenywe yezifundo zami, ngenza ucwaningo oluhlola ukufaneleka ngokwamasiko nolimi kwe Individual Scale for Zulu-Speaking Pupils (ISZSP). I-ISZSP iyithuluzi elihunyushiwe lokuhlola ukusebenza ngokwengqondo kwezingane kusuka kwiminyaka engu 9, izinyanga ezingu 0 kuya kwiminyaka engu 19, izinyanga ezingu 11. Lolu ucwaningo luzosiza ekuqinisekiseni ukuhlolwa ngokwengqondo okuhle okungenaphutha ngokwamasiko nolimi kwabafundi ulimi lwabo lwasekhaya luyisiZulu esikhathini esizayo. Ngicela imvume yakho ukuba ingane yakho ibambe iqhaza kulolucwaningo.

*Ukuhlolwa kokuhlakanipha (ekusebenzeni ingqondo) kusho ukubhekisela isilinganiso samakhono amaningi athintekayo ezinqubeni eziningi zengqondo. Lamakhono abandakanya lokhu: ukucabanga/ukubeka into enomqondo, ukuxazulula izinkinga, ukucabanga okusengqondweni kuphela (abstract), ukwahlulela, umqondo ekwakhekeni, inkumbulo yokusho (declarative), inkumbulo esebenzayo, ukunaka imininingwane, amakhono okwakha ngokubona, ukuhlanganisa okubonwayo nokunyakazisa izicubu, ukukhiqiza ngamazwi, ukuxazulula izinkinga ngamazwi, ukuqondisisa ulimi, ukwazi amagama, ukuqonda okubonwayo kanye nokuxazulula izinkinga ezibonwayo endaweni/esikhathini. Ukuchazwa kwemiphumela yokuhlolwa kwengqondo kunikeza ulwazi mayelana namandla kanye nobuthakathaka bengane maqondana nokusebenza kwengqondo nokuhlakanipha.*

Mina, umcwaningi, ngifisa ukukhetha izingane eziyishumi nambili ukuba zihlanganyele kulolu cwaningo. Uma uvuma, ukuhlanganyela kwakho nengane yakho kulolucwaningo kuzobandakanya lokhu okulandelayo:

Uyacelwa ukuba ukhombise ngokubhala imininingwane yakho kwifomu lemvume elinamathiselwe. Ingane yakho izohlolwa yi-intern engumZulu eqeqeshelwa ukuba ngudokotela wengqondo esiqeqeshiwe iminyaka emihlanu nefanelekayo; izosebenzisa isikali samagama se-ISZSP kwelilodwa lamahhovisi esikoleni lapho kufunda khona ingane yakho. Lokhu kuhlolwa kuzothatha imizuzu engu 30-45.

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#### Discipline of Psychology

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Umhlangano wokuhlola uzothwetshulwa kusetshenziswa ikhamera ye-video kanye nesiqophi mazwi ukuze umcwaniyi akwazi ukuthatha yonke imininingwane yalokho ingane ngayinye ekwenzayo okushoyo – futhi nokuthi kwenzeka kanjani lokho. Ukuqopha amazwi nezithombe ngesikhathi nokuhlolwa nge-ISZSP kuzosiza umcwaniyi ekutholeni ukuqondisa isipiliyoni sengane yakho se-ISZSP maqondana nokufaneleka kwayo ngokolimi. Lokhu futhi kuzosiza umcwaniyi ekutheni ahlole izindlela umntanakho athatha ngazo isimo sokuhlolwa kanye nokuqeda imisebenzi yokuhlolwa. Imiphumela ezotholakala kulokhu kuqoshwa kwamazwi nezithombe izosiza ekuthuthukiseni i-ISZSP ukuze ifaneleke ngokwamasiko nangokolimi.

Emva kwesikhashana esizayo, uzonikwa umbiko wemiphumela yokusebenza kwengane yakho ngesikhathi ihlolwa. Lo mbiko ungaba usizo ekwazini ngamandla engane yakho kanye izindawo ezidinga ukwenziwa ngcono. Uma kwenzeka ingane yakho idinga ukuhlolwa okwengeziwe noma ukusekelwa ngokozwelo (*emotional support*), iyobe isidluliselwa e-Child and Family Centre (CFC) kumkhakha we Psychology eNyuvesi yaKwaZulu-Natal, eMgungundlovu. Umcwaniyi uzotholakala ukuba akusize kulokhu. Ngicela wazi ukuthi wena nengane yakho ninalo ilungelo lokuthi nilushiye ucwaniyi noma kunini ngesikhathi kusaqoqwa imininingwane. Uma nifisa ukwenza kanjalo, ngiyokuthokozela ukuthi nikukhombise lokho kusenesikhathi ukuze umcwaniyi afune enye ingane.

Igama lakho kanye negama ingane yakho kanye nalo lonke ulwazi olumayelana nani ngqo luzohlala luyimfihlo futhi ngeke lwembulwe. Ukuvikela ukwazeka kwengane yakho, kuzosetshenziswa igama mbumbulu esikhundleni segama layo. Kuzoba yimi, umcwaniyi, kanye nomqondisi wami kuphela abazokwazi ukuthola imininingwane eqoshwe nge-video ngezikhathi zokuhlola, akekho omunye ozokwazi ukufinyelela kule mininingwane. Okutholakele ocwaniyi kungase kwethulwe ezingqungqutheleni, futhi kungase kusetshenziselwe ukubhala ukubhala i-athikhile ye jenali (*i-journal article: iphepha lephephabhuku lezocwaniyi*). Imininingwane ingase futhi isetshenziselwe ucwaniyi lwesikhathi esizayo. Kukho konke lokhu, ubuwena kanye nokwazeka kwengane yakho kuzohlala kuyimfihlo. Angeke kwenzeke ukuthi kusetshenziswe amagama enu angempela.

Yonke imininingwane izogcinwa isikhathi seminyaka emihlanu ekhabethe elikhwayo ehhovisi lomcwaniyi, kanjalo nakho konke okukhona okuphathelene nalolu cwaniyi. Kuzothathwa izinyathelo zokuqinisekisa ukuntuleka kokufinyelela kuwo onke amarekhodi aphahekayo nalawo a-elekthronikhi ukuze sivikele ukwephuka kwemfihlo yemininingwane. Imininingwane eqoshwe ngokwamazwi nezithombe izogcinwa ngendlela e-elekthronikhi (*ngokukagesi okwikhompyutha*) kumafayela anekhodi ne phasiwedi (*amagama noma izinombolo eziyimfihlo ezivumela kuphela labo abanelungelo ukuba babone ifayela*) ephephile kwi khompyutha, ezothintwa kuphela imina, umcwaniyi, kanye nomqondisi wami. Ukuze ubuwena bugcinwe buyimfihlo, yonke imininingwane izogcinwa ngokwehlukile kulwazi olungaxhumanisa yona negama lakho negama lengane yakho langempela.

Wena nengane yakho nizokwamukeliswa iziphuzo ngezikhathi enizofika ngazo. Zonke izindleko zenu zokuhamba/zokugibela ezizokwenzeka kulolu cwaniyi zizokhokhwa ngumcwaniyi. Ukukhombisa ukubonga, ingane yakho izokwamukeliswa ivawusha (voucher) yezincwadi.

Uma unemibuzo othanda ukuyibuzisa, wamukelekile ukuthi uthinte mina, umcwaniyi, kanye/noma umqondisi wami, u-Solwazi NJ Mkhize ngokusebenzisa imininingwane ezansi kwekhasi. Ungakwazi futhi ukuthinta uNksz Phume Ximba we Humanities and Social Science Research Ethics Committee ngocingo ku (031) 260 3587 noma imeyili (*incwadi yomoya ethunyelwa nge khompyutha*) ku [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Ngiyabonga isikhathi sakho nokubamba iqhaza. Manje ngicela ukuba ugcwalise ifomu lemivume elinamathiselwe ulinike ingane yakho, ukuze ilibuyise kimi, ngomhla ka \_\_\_\_\_ (usuku) \_\_\_\_\_ (inyanga) \_\_\_\_\_ (unyaka).

Ozithobayo,

Nksz Phindile Mayaba  
Umcwaningi, Umfundi owenza i-PhD  
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Ucingo: (031) 260 2006

----- **Dabula lapha** -----

**Imvume Enolwazi: Abazali**

Ngiyavuma ukuthi ingane yami ibambe iqhaza kulolu cwaningo olusihloko esithi: “Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo”. Ngichazelwe ngenhloso yalolucwaningo ngomlomo nangokubhalwe phansi. Ngibenalo ithuba lokufunda ngiqondisise incwadi yemininingwani engiyinikiwe, ngizigcinele yona ukuba ibe ulwazi lwami.

Ngiyaqonda ukuthi yini elindeleke kimi nasenganeni yami ngokwemibandela yokubamba kwayo iqhaza kulolu cwaningo. Ngiyaqonda ukuthi ukubamba iqhaza kwengane yami kuyinto yokuzithandela futhi ngiyazi ukuthi ingalushiya lolu cwaningo nganoma yingasiphi isikhathi, ngaphandle kwemiphumela engemihle. Ngiyaqonda ukuthi ukuhlanganyela kwengane yami kuzobandakanya ukuhlolwa kokuhlakanipha. Ngiyaqonda ukuthi i-intern engumZulu eqeqeshelwa ukuba udokotela wengqondo izoqhuba lokhu kuhlolwa esebenzisa i-ISZSP, futhi lokhu kuzoqoshwa ngokwamazwi nangezithombe. Ngiyaqonda ukuthi ngizonikwa umbiko mayelana nemiphumela yokusebenza kwengane yami kulokhu kuhlolwa ngokwengqondo.

Ngiyaqonda ukuthi imininingwane izogcinwa ngokuphepha iminyaka emihlanu kanti ingase isetshenziselwe ucwaningo esikhathini esizayo. Ngiyaqonda ukuthi izinyathelo zizothathwa ukuqinisekisa ukuthi ubumina nemininingwane emayelana nengane yami ngqo ivikelwe kanye neqhaza lami kulolu cwaningo luyoba imfihlo ngokuphelele kulokhu. Ngiyazi ukuthi umcwaningi kanye nomqondisi wakhe kuphela abazokwazi ukuthola bafinyelele kwimininingwane yokuhlolwa kwengane yami eqoshwe nge-video. Ngiyaqonda ukuthi akukho okwazisa ngami nangengane yami ngqo okuzoshicilelwa. Nginayo imininingwane yokuthinta umcwaningi uma kwenzeka ngiba neminye imibuzo mayelana nocwaningo.

*Uyacelwa ukuba ukhombise ngophawu u-X ebhokisini elifanele ngezansi:*

Ingane yami seyake yahlolwa ngokwezengqonqo/ukuhlakanipha esikhathini esidlule.

Yebo

Chabo

\_\_\_\_\_  
Igama likaMhlanganyeli (ingane)

\_\_\_\_\_  
Isignesha kaMzali  
Inombolo ye-telephone: \_\_\_\_\_

\_\_\_\_\_  
Usuku  
Inombolo ye-cell phone: \_\_\_\_\_

\_\_\_\_\_  
Isignesha kaMucwaningi

\_\_\_\_\_  
Usuku

### Ukuvumela Ukuqoshwa Kwemininingwane: Abazali

Ngaphezu kokuvumela ingane yami ukuthi ibambe iqhaza kulolu cwaningo olusihloko esithi: "Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo", nginikeza imvume yokuqoshwa ngokwamazwi nangezithombe inqubo yokuhlola ezizosetshenziswa njengemininingwane yalolu cwaningo.

\_\_\_\_\_

Igama likaMhlanganyeli (ingane)

\_\_\_\_\_

Isignesha kaMzali  
Inombolo ye-telephone: \_\_\_\_\_

\_\_\_\_\_

Usuku  
Inombolo ye-cell phone: \_\_\_\_\_

\_\_\_\_\_

Isignesha kaMcwaningi

\_\_\_\_\_

Usuku



## Appendix 9: Information letter and informed consent: Parents (English version)



Project Title: Evaluating the Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

[date]

Dear Parent

My name is Phindile Mayaba. I am a PhD student at the University of KwaZulu-Natal (UKZN). As part of my degree, I am conducting a qualitative study evaluating the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP). The ISZSP is a translated tool for assessing intellectual functioning of children whose age ranges from 9 years, 0 months to 19 years, 11 months. This research will aid in ensuring fair linguistically and culturally appropriate intellectual assessment of isiZulu-speaking learners in the future. I would like to request permission for your child to participate in this research.

*The psychological assessment of intellectual functioning refers to the measurement of multiple abilities that are affected by a number of specific cognitive processes. These abilities include: reasoning, problem solving, abstract thinking, judgment, concept formation, declarative memory, working memory, attention to details, visual-construction abilities, visuo-motor integration, verbal productivity, verbal problem solving, language comprehension, word knowledge, visual-perceptual and visual-spatial problem solving. The interpretation of psychological assessment results provides insight to the child's strengths and weaknesses in relation to cognitive and intellectual functioning.*

I, the researcher, aim to select twelve children to participate in this study. Should you agree, you and your child's participation in the study would involve the following:

Please indicate your contact details in the attached consent form. You will be invited to bring your child to the Child and Family Centre (CFC) within the Discipline of Psychology, University of KwaZulu-Natal, Pietermaritzburg, on a date that will be communicated to you. Your child will be assessed by an isiZulu-speaking intern psychologist that has been trained in five years; using the verbal scale of the ISZSP in one of the offices where your child goes to school. This assessment would take 30-45 minutes. The assessment session will be recorded using a video camera and a voice recorder so that the researcher can capture all the details of what each child does and says – and how that happens. The audio-visual recording during the administration of the ISZSP will assist the researcher in gaining an understanding of your child's experience of the ISZSP in relation to the appropriateness of its language. This will also help the researcher explore the ways in which your child approaches the assessment situation and completes assessment tasks. Findings from these audio-visual recordings will aid in improving the cultural and linguistic appropriateness of the ISZSP.

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At a later stage, you will be provided with feedback on your child's performance during the assessment. This feedback would be helpful in knowing your child's strengths as well as areas that need improvement. Should your child require further assessment or emotional support, he or she will be referred to the Child and Family Centre (CFC) within the Discipline of Psychology at the University of KwaZulu-Natal, Pietermaritzburg. The researcher will be available to assist you in this regard.

Please note that you and your child would have the right to withdraw from the study at any time during the data collection period. Should you wish to do so, an early indication of your intentions would be appreciated as another child may need to be approached.

Your name and your child's name together with all identifying information will be kept confidential and not revealed. To protect the identity of your child, pseudonyms will be used instead of his or her name. It is only me, the researcher, and my supervisor who will have access to the video recordings of the assessment sessions, no one else would have access to the recordings. The findings of the study might also be presented at conferences, and they might be used to write journal articles. The data may also be used in future research. In all of these, your identity and the identity of your child will be kept confidential. You will never be referred to by your real names.

All data will be stored for a period of five years in a locked cabinet in the researcher's office, as will any other materials relating to this research. Measures will be taken to ensure limited access to all records in order to safeguard against physical and electronic breaches of confidentiality of the information. Audio-visual data will be kept electronically in encrypted files with secure passwords in a computer, which will be accessible only to me, the researcher, and my supervisor. To maintain confidentiality, all data will be stored separately from information which links it to your name and your child's name.

You and your child will be offered refreshments at the sessions that you will attend. All your travelling expenses incurred in this study will be reimbursed by the researcher. As a token of appreciation, your child will be offered a book voucher.

If you have any questions you would like to ask, you are welcome to contact me, the researcher, and/or my supervisor, Prof. N.J. Mkhize, by using the following details. You may also contact Ms Phume Ximba of the Humanities and Social Science Research Ethics Committee via phone (031) 260 3587 or email [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Thank you for your time and participation. I now invite you to complete the attached consent form and return it to me, via your child, on \_\_\_\_ (day) \_\_\_\_ (month) \_\_\_\_ (year).

Sincerely,

Ms Phindile Mayaba  
Researcher, PhD Student  
Discipline of Psychology, UKZN  
Email: [Mayabap@ukzn.ac.za](mailto:Mayabap@ukzn.ac.za)  
Telephone number: (033) 260 5364

Prof. N.J. Mkhize  
PhD Research Supervisor  
Discipline of Psychology, UKZN  
Email: [Mkhize@ukzn.ac.za](mailto:Mkhize@ukzn.ac.za)  
Telephone number: (031) 260 2006

## Informed Consent – Parents

I hereby agree for my child to participate in this study titled: "Evaluating the Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis". The purpose of the study has been explained to me. I have had an opportunity to read and understand the information letter given to me, which I have kept for my own information.

I understand what is expected of me and my child in terms of his or her participation in this study. I understand that my child's participation is voluntary and I know that he or she may withdraw from the study at any point, without negative consequences. I understand that my child's participation will involve being assessed for intellectual functioning. I understand that an isiZulu-speaking intern psychologist will conduct this assessment using the ISZSP, and this will be audio-visually recorded.

I understand that I will be provided with individualized feedback on my child's performance on this psychological assessment.

I understand that the data will be stored securely for five years and used for future research. I understand that measures will be taken to ensure that my identity as well as my child's identity will be protected and participation in this research will be completely confidential. I know that only the researcher and her supervisor will have access to the video recording of my child's assessment session. I understand that no identifying information about me and my child will be published.

I have the contact details of the researcher should I have any questions about the research.

*Please indicate with an **X** in the relevant box below:*

My child has been assessed for intellectual functioning before.

Yes

No

\_\_\_\_\_  
Name of Participant (Child)

\_\_\_\_\_  
Signature of Parent

\_\_\_\_\_  
Date

Telephone number: \_\_\_\_\_

Cell phone number: \_\_\_\_\_

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

### Informed Consent to Audio-Visual Recording – Parents

In addition to agreeing for my child to participate in the study titled: “The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis”, I give permission for audio-visual recording of the assessment process to be used as data in this research project.

\_\_\_\_\_  
Name of Participant (Child)

\_\_\_\_\_  
Signature of Parent

\_\_\_\_\_  
Date

Telephone number: \_\_\_\_\_

Cell phone number: \_\_\_\_\_

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

## Appendix 10: Incwadi yemininingwane nemvume enolwazi: Abafundi



Isihloko Somklamo: Ukuhlolwa Kokufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo

[usuku]

Mhlanganyeli othandekayo

Igama lami ngingu-Phindile Mayaba. Ngenza izifundo ze-PhD eNyuvesi yaKwaZulu-Natali (UKZN). Njengengxenywe yezifundo zami, ngenza ucwaningo oluhlola ukufaneleka ngokwamasiko nolimi kwe Individual Scale for Zulu-Speaking Pupils (ISZSP). I-ISZSP iyithuluzi elihunyushiwe lokuhlola ukusebenza ngokwengqondo kwezingane kusuka kwiminyaka engu 9, izinyanga ezingu 0 kuya kwiminyaka engu 19, izinyanga ezingu 11. Lolu ucwaningo luzosiza ekuqinisekiseni ukuhlolwa ngokwengqondo okuhle okungenaphutha ngokwamasiko nolimi kwabafundi ulimi lwabo lwasekhaya luyisiZulu esikhathini esizayo. Ngicela imvume yakho ukuba ubambe iqhaza kulolucwaningo.

*Ukuhlolwa kokuhlakanipha (ekusebenzeni ingqondo) kusho ukubhekisela isilinganiso samakhono amaningi athintekayo ezinqubeni eziningi zengqondo. Lamakhono abandakanya: ukucabanga/ukubeka into enomqondo, ukuxazulula izinkinga, ukucabanga okusengqondweni kuphela (abstract), ukwahlulela, umqondo ekwakhekeni, inkumbulo yokusho (declarative), inkumbulo esebenzayo, ukunaka imininingwane, amakhono okwakha ngokubona, ukuhlanganisa okubonwayo nokunyakazisa izicubu, ukukhiqiza ngamazwi, ukuxazulula izinkinga ngamazwi, ukuqondisisa ulimi, ukwazi amagama, ukuqonda okubonwayo kanye nokuxazulula izinkinga ezibonwayo endaweni/esikheleni. Ukuchazwa kwemiphumela yokuhlolwa kwengqondo kunikeza ulwazi mayelana namandla kanye nobuthakathaka bengane maqondana nokusebenza kwengqondo nokuhlakanipha.*

Mina, umcwaningi, ngifisa ukukhetha izingane eziyishumi nambili ukuba zihlanganyele kulolu cwaningo. Uma uvuma, ukuhlanganyela kwakho kulolucwaningo kuzobandakanya lokhu okulandelayo:

Uyacelwa ukuba ukhombise ngokubhala imininingwane yakho kwifomu lemvume elinamathiselwe. Wena uzohlolwa yi-intern engumZulu eqeqeshelwa ngudokotela wengqondo; esebenzisa isikali samagama se-ISZSP kwelilodwa lamahovisi asesikoleni lapho ofunda khona. Lokhu kuhlolwa kuzothatha imizuzu engu 30-45.

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Umhlangano wokuhlola uzothwetshulwa kusetshenziswa ikhamera ye-video kanye nesiqophi mazwi ukuze umcwaningi akwazi ukuthatha yonke imininingwane yalokho ozobe ukwenzile nalokho okushilo – futhi nokuthi kwenzeka kanjani lokho. Ukuqopha amazwi nezithombe ngesikhathi nokuhlolwa nge-ISZSP kuzosiza umcwaningi ekutholeni ukuqondisisa isipiliyoni saakho se-ISZSP maqondana nokufaneleka kwayo ngokolimi. Lokhu futhi kuzosiza umcwaningi ekutheni ahlole izindlela wena ozothatha ngazo isimo sokuhlolwa kanye nokuqeda imisebenzi yokuhlolwa. Imiphumela ezotholakala kulokhu kuqoshwa kwamazwi nezithombe izosiza ekuthuthukiseni i-ISZSP ukuze ifaneleke ngokwamasiko nangokolimi.

Emva kwesikhashana esizayo, umzali wakho uzonikwa umbiko wemiphumela yokusebenza kwakho ngesikhathi uhlolwa. Lo mbiko ungaba usizo ekwazini ngamandla akho kanye izindawo ezidinga ukwenziwa ngcono. Uma kwenzeka udinga ukuhlolwa okwengeziwe noma ukusekelwa ngokozwelo, uyobe usidluliselwa eChild and Family Centre (CFC) kumkhakha we-Psychology, eNyuvesi yakwaZulu-Natal, eMgungundlovu.

Ngicela wazi ukuthi unalo ilungelo lokuthi ulushiye ucwaningo noma kunini ngesikhathi kusaqoqwa imininingwane. Uma ufisa ukwenza kanjalo, ngiyokuthokozela ukuthi ukukhombise lokho kusenesikhathi ukuze umcwaningi afune enye ingane.

Igama lakho kanye nalo lonke ulwazi olumayelana nawe ngqo luzohlala luyimfihlo futhi ngeke lwembulwe. Ukuvikela ukwazeka kwakho, kuzosetshenziswa igama mbumbulu esikhundleni segama lakho. Kuzoba yimi, umcwaningi, kanye nomqondisi wami kuphela abazokwazi ukuthola imininingwane eqoshwe nge-video ngezikhathi zokuhlola, akekho omunye ozokwazi ukufinyelela kule mininingwane. Okutholakele ocwaningweni kungase kwethulwe ezingqungqutheleni, futhi kungase kusetshenziselwe ukubhala ukubhala i-athikhile ye jenali (*i-journal article: iphepha lephephabhuku lezocwaningo*). Imininingwane ingase futhi isetshenziselwe ucwaningo lwesikhathi esizayo. Kukho konke lokhu, ubuwena buzo hlala buyimfihlo. Angeke kwenzeke ukuthi kusetshenziswe igama lakho langempela.

Yonke imininingwane izogcinwa isikhathi seminyaka emihlanu ekhabethe elikhwayo ehovisi lomcwaningi, kanjalo nakho konke okukhona okuphathelene nalolu cwaningo. Kuzothathwa izinyathelo zokuqinisekisa ukuntuleka kokufinyelela kuwo onke amarekhodi apha thekayo nalawo a-elekhtronikhi ukuze sivikele ukwephuka kwemfihlo yemininingwane. Imininingwane eqoshwe ngokwamazwi nezithombe izogcinwa ngendlela e-elekhtronikhi (*ngokukagesi okwikhompyutha*) kumafayela anekhodi ne phasiwedi (*amagama noma izinombolo eziyimfihlo ezivumela kuphela labo abanelungelo ukuba babone ifayela*) ephephile kwi khompyutha, ezothintwa kuphela imina, umcwaningi, kanye nomqondisi wami. Ukuze ubuwena bugcinwe buyimfihlo, yonke imininingwane izogcinwa ngokwehlukile kulwazi olungaxhumanisa yona negama lakho langempela.

Ukukhombisa ukubonga, uzokwamukeliswa ivawusha (voucher) yezincwadi.

Uma unemibuzo othanda ukuyibuzisa, wamukelekile ukuthi uthinte mina, umcwaningi, kanye/noma umqondisi wami, u-Solwazi NJ Mkhize ngokusebenzisa imininingwane ezansi kwekhasi. Ungakwazi futhi ukuthinta uNksz Phume Ximba we Humanities and Social Science Research Ethics Committee ngocingo ku (031) 260 3587 noma imeyili (*incwadi yomoya*) ku [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Ngiyabonga isikhathi sakho nokubamba iqhaza. Manje ngicela ukuba ugcalise ifomu lemume elinamathiselwe ulibuyise kimi, ngomhla ka \_\_\_\_\_ (usuku) \_\_\_\_\_ (inyanga) \_\_\_\_\_ (unyaka).

Ozithobayo,

Nksz Phindile Mayaba  
Umcwaningi, Umfundi owenza i-PhD  
Umkhakha we Psychology, UKZN  
Imeyili: [MayabaP@ukzn.ac.za](mailto:MayabaP@ukzn.ac.za)  
Ucingo: (033) 260 5364

Solwazi N.J. Mkhize  
Umqondisi wocwaningo  
Umkhakha we Psychology, UKZN  
Imeyili: [Mkhize@ukzn.ac.za](mailto:Mkhize@ukzn.ac.za)  
Ucingo: (031) 260 2006

----- Dabula lapha -----

**Imvume Enolwazi: Abafundi**

Ngiyavuma ukubamba iqhaza kulolu cwaningo olusihloko esithi: "Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezininga Lesimo". Ngichazelwe ngenhloso yalolucwaningo ngomlomo nangokubhalwe phansi. Ngibenalo ithuba lokufunda ngiqondisise incwadi yemininingwani engiyinikiwe, ngizigcinele yona ukuba ibe ulwazi lwami.

Ngियाqonda ukuthi yini elindeleke kimi ngokwemibandela yokubamba iqhaza kulolu cwaningo. Ngियाqonda ukuthi ukubamba kwami iqhaza kuyinto yokuzithandela futhi ngiyazi ukuthi ngingalushiya lolu cwaningo nganoma yisiphi isikhathi, ngaphandle kwemiphumela engemihle. Ngियाqonda ukuthi ukuhlanganyela kwami kuzobandakanya ukuhlolwa kokuhlakanipha. Ngियाqonda ukuthi i-intern egeqeshlwa ukuba ngudokotela wengqondo izoqhuba lokhu kuhlolwa esebenzisa i-ISZSP, futhi lokhu kuzoqoshwa ngokwamazwi nangezithombe. Ngियाqonda ukuthi umzali wami uzonikwa umbiko mayelana nemiphumela yokusebenza kweami kulokhu kuhlolwa ngokwengqondo.

Ngियाqonda ukuthi imininingwane izogcinwa ngokuphepha iminyaka emihlanu kanti ingase isetshenziselwe ucwaningo esikhathini esizayo. Ngियाqonda ukuthi izinyathelo zizothathwa ukuqinisekisa ukuthi ubumina nemininingwane emayelana nami ngqo ivikelwe kanye neqhaza lami kulolu cwaningo luyoba imfihlo ngokuphelele kulokhu. Ngiyazi ukuthi umcwaningi kanye nomqondisi wakhe kuphela abazokwazi ukuthola bafinyelele kwimininingwane yokuhlolwa kwami eqoshwe nge-video. Ngियाqonda ukuthi akukho okwazisa ngami ngqo okuzoshicilelwa. Nginayo imininingwane yokuthinta umcwaningi uma kwenzeka ngiba neminye imibuzo mayelana nocwaningo.

*Uyacelwa ukuba ukhombise ngophawu u-X ebhokisini elifanele ngezansi:*

Sengake ngahlolwa ngokwezengqonqo/ukuhlakanipha esikhathini esidlule.

Yebo

Chabo

\_\_\_\_\_  
Igama likaMhlanganyeli

\_\_\_\_\_  
Isignesha kaMhlanganyeli  
Inombolo ye-telephone: \_\_\_\_\_

\_\_\_\_\_  
Usuku  
Inombolo ye-cell phone: \_\_\_\_\_

\_\_\_\_\_  
Isignesha kaMcvanangi

\_\_\_\_\_  
Usuku

**Ukuvumela Kokuqoshwa Kwemininingwane: Abafundi**

Ngaphezu kokuvuma ukuthi ngibambe iqhaza kulolu cwaningo olusihloko esithi: “Ukufaneleka Ngokwamasiko Nolimi Kwe Individual Scale for Zulu-Speaking Pupils: Inhlaziyo Ngokwezinga Lesimo”, nginikeza imvume yokuqoshwa ngokwamazwi nangezithombe inqubo yokuhlola ezizosetshenziswa njengemininingwane yalolu cwaningo.

\_\_\_\_\_

Igama likaMhlanganyeli

\_\_\_\_\_

Isignesha kaMhlanganyeli

\_\_\_\_\_

Usuku

Inombolo ye-telephone: \_\_\_\_\_

Inombolo ye-cell phone: \_\_\_\_\_

\_\_\_\_\_

Isignesha kaMcwani

\_\_\_\_\_

Usuku

## Appendix 11: Information letter and informed assent/consent: Learners (English version)



Project Title: Evaluating the Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis.

[date]

Dear Participant

My name is Phindile Mayaba. I am a PhD student at the University of KwaZulu-Natal (UKZN). As part of my degree, I am conducting a qualitative study evaluating the cultural and linguistic appropriateness of the Individual Scale for Zulu-Speaking Pupils (ISZSP). The ISZSP is a translated tool for assessing intellectual functioning of children whose age ranges from 9 years, 0 months to 19 years, 11 months. This research will aid in ensuring fair linguistically and culturally appropriate intellectual assessment of isiZulu-speaking learners in the future. I would like to request you to participate in this research.

*The psychological assessment of intellectual functioning refers to the measurement of multiple abilities that are affected by a number of specific cognitive processes. These abilities include: reasoning, problem solving, abstract thinking, judgment, concept formation, declarative memory, working memory, attention to details, visual-construction abilities, visuo-motor integration, verbal productivity, verbal problem solving, language comprehension, word knowledge, visual-perceptual and visual-spatial problem solving. The interpretation of psychological assessment results provides insight to the child's strengths and weaknesses in relation to cognitive and intellectual functioning.*

I, the researcher, aim to select twelve children to participate in this study. Should you agree, your participation in the study would involve the following:

Please indicate your contact details in the attached consent form. You will be assessed by an isiZulu-speaking intern psychologist using the verbal scale of the ISZSP in one of the offices in your school. This assessment would take 30-45 minutes. The assessment session will be recorded using a video camera and a voice recorder so that the researcher can capture all the details of what each child does and says – and how that happens.

The audio-visual recording during the administration of the ISZSP will assist the researcher in gaining an understanding of your experience of the ISZSP in relation to the appropriateness of its language. This will also help the researcher explore the ways in which you approach the assessment situation and complete assessment tasks. Findings from these audio-visual recordings will aid in improving the cultural and linguistic appropriateness of the ISZSP.

### School of Applied Human Sciences






#### Discipline of Psychology

**Postal Address:** Private Bag X01, Scottsville, Pietermaritzburg3209, South Africa

**Telephone:** +27 (0)33 260 5853

**Facsimile:** +27 (0)33 260 5809

**Website:** psychology.ukzn.ac.za

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville



At a later stage, your parent will be provided with feedback on your performance during the assessment. This feedback would be helpful in knowing your strengths as well as areas that need improvement. Should you require further assessment or emotional support, you will be referred to the Child and Family Centre (CFC) within the Discipline of Psychology at the University of KwaZulu-Natal, Pietermaritzburg. Please note that you would have the right to withdraw from the study at any time during the data collection period. Should you wish to do so, an early indication of your intentions would be appreciated as another child may need to be approached.

Your name together with all identifying information will be kept confidential and not revealed. To protect your identity, pseudonyms will be used instead of your name. It is only me, the researcher, and my supervisor who will have access to the video recordings of the assessment sessions, no one else would have access to the recordings. To maintain confidentiality, all data will be stored separately from information which links it to your name. The findings of the study might also be presented at conferences, and they might be used to write journal articles. The data may also be used in future research. In all of these, your identity will be kept confidential.

Measures will be taken to ensure limited access to all records in order to safeguard against physical and electronic breaches of confidentiality of the information. All physical documents will be filed and locked in a cabinet for protection from unauthorized access, damage, loss and destruction. Audio-visual data will be kept electronically in encrypted files with secure passwords in a computer, which will be accessible only to me, the researcher, and my supervisor.

All data will be stored for a period of five years in a locked cabinet in the researcher's office, as will any other materials relating to this research. Measures will be taken to ensure limited access to all records in order to safeguard against physical and electronic breaches of confidentiality of the information. Audio-visual data will be kept electronically in encrypted files with secure passwords in a computer, which will be accessible only to me, the researcher, and my supervisor. To maintain confidentiality, all data will be stored separately from information which links it to your name.

As a token of appreciation, you will be offered a book voucher.

If you have any questions you would like to ask, you are welcome to contact me, the researcher, and/or my supervisor, Prof. N.J. Mkhize, by using the following details. You may also contact Ms Phume Ximba of the Humanities and Social Science Research Ethics Committee via phone (031) 260 3587 or email [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za).

Thank you for your time and participation. I now invite you to complete the attached consent form and return it to me on \_\_\_\_ (day) \_\_\_\_ (month) \_\_\_\_ (year).

Sincerely,

Ms Phindile Mayaba  
Researcher, PhD Student  
Discipline of Psychology, UKZN  
Email: [Mayabap@ukzn.ac.za](mailto:Mayabap@ukzn.ac.za)  
Telephone number: (033) 260 5364

Prof. N.J. Mkhize  
PhD Research Supervisor  
Discipline of Psychology, UKZN  
Email: [Mkhize@ukzn.ac.za](mailto:Mkhize@ukzn.ac.za)  
Telephone number: (031) 260 2006

### Informed Assent/Consent – Learners

I hereby agree to participate in this study titled: “Evaluating the Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis”. The purpose of the study has been explained to me. I have had an opportunity to read and understand the information letter given to me, which I have kept for my own information.

I understand what is expected of me in terms of my participation in this study. I understand that my participation is voluntary and I know that I may withdraw from the study at any point, without negative consequences. I understand that my participation will involve being assessed for intellectual functioning. I understand that an isiZulu-speaking intern psychologist will conduct this assessment using the ISZSP, and this will be audio-visually recorded. I understand that my parent will be offered individualized feedback on my performance on this psychological assessment.

I understand that the data will be stored securely for five years and used for future research. I understand that measures will be taken to ensure that my identity will be protected and participation in this research will be completely confidential. I know that only the researcher and her supervisor will have access to the video recording of my assessment session. I understand that no identifying information about me will be published. I understand that data collected in this study may be used for future research.

I have the contact details of the researcher should I have any questions about the research.

*Please indicate with an X in the relevant box below:*

I have been assessed for intellectual functioning before.

Yes

No

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature of Participant

Telephone number: \_\_\_\_\_

\_\_\_\_\_  
Date

Cell phone number: \_\_\_\_\_

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

### **Informed Assent/Consent to Audio-Visual Recording – Learners**

In addition to agreeing to participate in the study titled: “Evaluating the Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis”, I give permission for audio-visual recording of the assessment process to be used as data in this research project.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

Telephone number: \_\_\_\_\_

Cell phone number: \_\_\_\_\_

\_\_\_\_\_  
Signature of Researcher

\_\_\_\_\_  
Date

**Appendix 12: The reliability coefficients ( $r_{tt}$ ) and standard error of measurement (SEm) for the ISZSP by age (cf: Landman, 1988c):**

<p><b>For children aged 9 years, 0 months to 9 years, 11 months:</b></p>	<p><b>For children aged 10 years, 0 months to 10 years, 11 months:</b></p>
<p>Subtests: <math>r_{tt}</math> ranges from 0.682 to 0.884 SEm ranges from 1.043 to 1.810</p> <p>Verbal IQ: <math>r_{tt}</math> is 0.936 Em is 2.895</p> <p>Performance IQ: <math>r_{tt}</math> is 0.938 SEm is 3.159</p> <p>Global IQ: <math>r_{tt}</math> is 0.962 SEm is 4.142</p>	<p>Subtests: <math>r_{tt}</math> ranges from 0.690 to 0.899 SEm ranges from 1.011 to 1.542</p> <p>Verbal IQ: <math>r_{tt}</math> is 0.929 SEm is 2.929</p> <p>Performance IQ: <math>r_{tt}</math> is 0.929 SEm is 2.753</p> <p>Global IQ: <math>r_{tt}</math> is 0.955 SEm is 4.032</p>
<p><b>For children aged 11 years, 0 months to 11 years, 11 months:</b></p>	<p><b>For children aged 12 years, 0 months to 12 years, 11 months:</b></p>
<p>Subtests: <math>r_{tt}</math> ranges from 0.679 to 0.894 SEm ranges from 0.955 to 1.737</p> <p>Verbal IQ: <math>r_{tt}</math> is 0.935 SEm is 3.004</p> <p>Performance IQ: <math>r_{tt}</math> is 0.948 SEm is 2.845</p> <p>Global IQ: <math>r_{tt}</math> is 0.965 SEm is 4.113</p>	<p>Subtests: <math>r_{tt}</math> ranges from 0.749 to 0.905 SEm ranges from 0.963 to 1.727</p> <p>Verbal IQ: <math>r_{tt}</math> is 0.932 SEm is 3.086</p> <p>Performance IQ: <math>r_{tt}</math> is 0.940 SEm is 2.791</p> <p>Global IQ: <math>r_{tt}</math> is 0.958 SEm is 4.154</p>
<p><b>For children aged 13 years, 0 months to 13 years, 11 months:</b></p>	<p><b>For children aged 14 years, 0 months to 14 years, 11 months:</b></p>
<p>Subtests: <math>r_{tt}</math> ranges from 0.748 to 0.893 SEm ranges from 1.043 to 1.810</p> <p>Verbal IQ: <math>r_{tt}</math> is 0.918 SEm is 3.174</p> <p>Performance IQ: <math>r_{tt}</math> is 0.936 SEm is 2.767</p> <p>Global IQ: <math>r_{tt}</math> is 0.955 SEm is 4.238</p>	<p>Subtests: <math>r_{tt}</math> ranges from 0.654 to 0.911 SEm ranges from 0.961 to 1.665</p> <p>Verbal IQ: <math>r_{tt}</math> is 0.908 SEm is 3.195</p> <p>Performance IQ: <math>r_{tt}</math> is 0.926 SEm is 2.776</p> <p>Global IQ: <math>r_{tt}</math> is 0.947 SEm is 4.193</p>

**Appendix 12 continued: The reliability coefficients ( $r_{tt}$ ) and standard error of measurement (SEm) for the ISZSP by age (cf: Landman, 1988c):**

<p><b>For children aged 15 years, 0 months to 15 years, 11 months:</b></p>	<p><b>For children aged 16 years, 0 months to 16 years, 11 months:</b></p>
<p>Subtests: <math>r_{tt}</math> ranges from 0.568 to 0.919 SEm ranges from 0.870 to 1.869 Verbal IQ: <math>r_{tt}</math> is 0.902 SEm is 2.957 Performance IQ: <math>r_{tt}</math> is 0.944 SEm is 2.677 Global IQ: <math>r_{tt}</math> is 0.955 SEm is 3.990</p>	<p>Subtests: <math>r_{tt}</math> ranges from 0.612 to 0.908 SEm ranges from 0.940 to 1.771 Verbal IQ: <math>r_{tt}</math> is 0.891 SEm is 3.102 Performance IQ: <math>r_{tt}</math> is 0.942 SEm is 2.822 Global IQ: <math>r_{tt}</math> is 0.951 SEm is 4.203</p>
<p><b>For children aged 17 years, 0 months to 17 years, 11 months:</b></p>	<p><b>For children aged 18 years, 0 months to 18 years, 11 months:</b></p>
<p>Subtests: <math>r_{tt}</math> ranges from 0.642 to 0.921 SEm ranges from 0.859 to 1.868 Verbal IQ: <math>r_{tt}</math> is 0.911 SEm is 3.243 Performance IQ: <math>r_{tt}</math> is 0.941 SEm is 2.738 Global IQ: <math>r_{tt}</math> is 0.956 SEm is 4.267</p>	<p>Subtests: <math>r_{tt}</math> ranges from 0.689 to 0.909 SEm ranges from 0.857 to 1.944 Verbal IQ: <math>r_{tt}</math> is 0.917 SEm is 3.333 Performance IQ: <math>r_{tt}</math> is 0.934 SEm is 2.746 Global IQ: <math>r_{tt}</math> is 0.954 SEm is 4.302</p>
<p><b>For children aged 19 years, 0 months to 19 years, 11 months:</b></p>	
<p>Subtests: <math>r_{tt}</math> ranges from 0.589 to 0.908 SEm ranges from 0.872 to 1.941 Verbal IQ: <math>r_{tt}</math> is 0.890 SEm is 3.424 Performance IQ: <math>r_{tt}</math> is 0.934 SEm is 2.738 Global IQ: <math>r_{tt}</math> is 0.943 SEm is 4.398</p>	

## Appendix 13: Permission to use the Child and Family Centre audio-visual recording facilities



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

27 May 2014

Discipline of Psychology  
School of Applied Human Sciences  
University of KwaZulu-Natal  
Pietermaritzburg Campus

Dear Ms Mayaba

### Permission to use the Child and Family Centre Audio-Visual Recording Facilities

I hereby grant you permission to use the audio-visual recording facilities at the Child and Family Centre (CFC). This permission is granted for data collection purposes for the research project titled: "The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis".

Please use the booking system at the CFC to secure the facility for the days and times you wish to use it. I request that you ensure that all equipment and rooms are used properly and taken care of for the duration of your data collection process. Note that you will be held responsible for any loss or damage caused to the equipment while in your care.

Please find attached a quotation as per your request. Payment can be made either upfront for all six sessions, or for each individual session on the day the facility is used.

Yours sincerely,

Mrs N. Buthelezi  
Director at the Child and Family Centre

### Child and Family Centre

#### School of Applied Human Sciences: Discipline of Psychology

Postal Address: Private Bag X01, Scottsville, Pietermaritzburg3209, South Africa

Telephone: +27 (0)33 260 5166/5670

Facsimile: +27 (0)33 260 5809

Email: [ButheleziN@ukzn.ac.za](mailto:ButheleziN@ukzn.ac.za)

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

## Appendix 14: Contract and confidentiality pledge – Research assistant



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

09 March 2015

### Contract and Confidentiality Pledge

I, \_\_\_\_\_, the Research Assistant, have been hired to contribute to the data collection process of this study by assessing the intellectual functioning of isiZulu-speaking learners using the Verbal Scale of the Individual Scale for Zulu Speaking Pupils (ISZSP).

I understand that I may have access to confidential information about the study sites and the participants. By signing this contract, I am indicating my understanding of my responsibilities to maintain confidentiality and agree to the following:

- I understand that names and any other identifying information about the study sites and the participants are completely confidential.
- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research project that could identify the learners who participated in the study in any form or format (e.g., record forms).
- I agree to keep all research information in any form or format (e.g., record forms) secure while it is in my possession.
- I agree to return all research information in any form or format (e.g., record forms) to the Researcher when I have completed the research tasks.

### School of Applied Human Sciences






#### Discipline of Psychology

**Postal Address:** Private Bag X01, Scottsville, Pietermaritzburg3209, South Africa

**Telephone:** +27 (0)33 260 5364

**Facsimile:** +27 (0)33 260 5809

**Website:** [psychology.ukzn.ac.za](http://psychology.ukzn.ac.za)

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

- I understand that all information about study sites or participants obtained or accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information, unless specifically authorized to do so by approved protocol or by the Researcher acting in response to applicable law or court order, or public health or clinical need.
- I understand that I am not to read information about study sites or participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.
- I agree to notify the Researcher immediately should I become aware of an actual breach of confidentiality or a situation which could potentially result in a breach, whether this be on my part or on the part of another person.

\_\_\_\_\_  
(Name: Research Assistant)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Name: Researcher)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)



## Appendix 15: Contract and confidentiality pledge – Transcriber



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

03 August 2015

### Contract and Confidentiality Pledge

I, \_\_\_\_\_, the Transcriber, have been hired to contribute to this study by transcribing video data.

I understand that I may have access to confidential information about the study sites and the participants. By signing this contract, I am indicating my understanding of my responsibilities to maintain confidentiality and agree to the following:

- I understand that names and any other identifying information about the study sites and the participants are completely confidential.
- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research project that could identify the learners who participated in the study in any form or format (e.g., videos, transcripts).
- I agree to keep all research information in any form or format (e.g., videos, transcripts) secure while it is in my possession.
- I agree to return all research information in any form or format (e.g., videos, transcripts) to the Researcher when I have completed the research tasks.

### School of Applied Human Sciences

#### Discipline of Psychology

**Postal Address:** Private Bag X01, Scottsville, Pietermaritzburg3209, South Africa

**Telephone:** +27 (0)33 260 5364

**Facsimile:** +27 (0)33 260 5809

**Website:** [psychology.ukzn.ac.za](http://psychology.ukzn.ac.za)

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

- I understand that all information about study sites or participants accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information, unless specifically authorized to do so by approved protocol or by the Researcher acting in response to applicable law or court order, or public health or clinical need.
  
- I understand that I am not to read information about study sites or participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.
  
- I agree to notify the Researcher immediately should I become aware of an actual breach of confidentiality or a situation which could potentially result in a breach, whether this be on my part or on the part of another person.

\_\_\_\_\_  
(Name: Transcriber)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Name: Researcher)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

## Appendix 16: Permission from Mindmuzik Media to qualitatively evaluate the ISZSP



Mindmuzik Media  
PO Box 2904  
Brooklyn Square  
0083

13 June 2014

School of Applied Human Sciences  
College of Humanities  
University of KwaZulu Natal  
Private Bag X01  
SCOTTSVILLE 3209

Ms Phindile L. Mayaba

### **Request for Permission to Qualitatively Evaluate the Individual Scale for Zulu-Speaking Pupils**

We are pleased to hear about your intention to evaluate the Individual Scale for Zulu-speaking Learners. This kind of research would be valuable for psychologists in KwaZulu Natal, and will also have implications for the further development of cognitive assessments in South Africa.

We hereby grant you permission to perform the research. We would assist in supplying the answer sheets at a discounted price.

Please note that the original copyright lies with the HSRC but Mindmuzik Media acts on behalf of the HSRC.

We wish you all the best with the research. Please keep us updated – we would love to have access to your findings, your feedback and subsequent recommendations.

Kind regards

Talita Kriek  
Educational Psychologist  
Mindmuzik Media



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**Appendix 17: Assurance of psychological assessment and support services from the Child and Family Centre**



Project Title: The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis

27 May 2014

Discipline of Psychology  
School of Applied Human Sciences  
University of KwaZulu-Natal  
Pietermaritzburg Campus

Dear Ms Mayaba

**Assurance of Psychological Assessment and Support Services from the Child and Family Centre**

This letter serves to provide assurance that should any child/learner or parent/primary caregiver require psychological assistance as a result of any distress arising from or identified by the research project titled: "The Cultural and Linguistic Appropriateness of the Individual Scale for Zulu-Speaking Pupils: A Qualitative Analysis", it will be provided by registered psychologists and intern psychologists under supervision at the Child and Family Centre within the University of KwaZulu-Natal, Pietermaritzburg Campus.

Our School also includes the Discipline of Social Work, therefore appropriate referrals to Social Work can be made if indicated.

Yours sincerely,

Mrs N. Buthelezi  
Director at the Child and Family Centre

**Child and Family Centre**

**School of Applied Human Sciences: Discipline of Psychology**

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Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

## Appendix 18: Recommendations proposed by participating psychologists to rectify some errors in the ISZSP

- Ikhasi 8, umyalo wokuqala: igama elithi *ungagondisisi* kumele lithi “ungaqondisisi”.  
Page 8, first instruction: the word *ungagondisisi* should be “ungaqondisisi”.
- Ikhasi 11, Item 10: igama elithi *esiphithiza yo* kumele lithi “esiphithizayo”.  
Page 11, Item 10: the word *esiphithiza yo* should be “esiphithizayo”.
- Ikhasi 14, Item 20: igama elithi *ziwubhugu* kumele lithi “ziwubhuqu”.  
Page 14, Item 20: the word *ziwubhugu* should be “ziwubhuqu”.
- Ikhasi 18, umyalo wesibili nowesithathu: amagama athi *ziyindilingi* kanye *kuzindingilizi* nelithi *kungamathoyisi* kumele athi “ziyindilinga”, “kuyizindilinga” kanye “kungamathoyizi”.  
Page 18, second and third instructions: the words *ziyindilingi* and *kuzindingilizi* and also *kungamathoyisi* should be “ziyindilinga”, “kuyizindilinga” and “kungamathoyizi”.
- Ikhasi 20, Item 3: igama elithi *ihashi* kumele lithi “ihhashi”. A cow is inkomo; uma ususho inkomazi usuba specific – ususho i-gender yenkomo. So igama elithi *inkomazi* kumele lithi “inkomo”.  
Page 20, Item 3: the word *ihashi* should be “ihhashi”. A cow is inkomo; when you mention inkomazi you are being specific – you are referring to the gender of the cow. So the word *inkomazi* should be “inkomo”.
- Ikhasi 20, Item 4: igama lithi *ihala* kumele lithi “ihhala”.  
Page 20, Item 4: the word *ihala* should be “ihhala”.
- Ikhasi 21, Item 5: igama elithi *irediyo* kumele lithi “umsakazo”. Igama elithi *uthelefoni* kumele lithi “ucingo”.  
Page 21, Item 5: the word *irediyo* should be “umsakazo”. The word *uthelefoni* should be “ucingo”.
- Ikhasi 21, Item 7: igama elithi *iyembe* kumele lithi “ihembe”.
- Page 21, Item 7: the word *iyembe* should be “ihembe”.
- Ikhasi 26, umyalelo wokuqala: igama elithi *lombuza* kumele lithi “lombuzo”.

- Page 26, first instruction: the word *lombuza* should be “lombuzo”.
- Ikhasi 27, Item 3: igama elithi *ngaphezulz* kumele lithi “ngaphezulu”.  
Page 27, Item 3: the word *ngaphezulz* should be “ngaphezulu”.
  - Ikhasi 28, Item 9: igama elithi *uhafu* kumele lithi “uhhafu”.  
Page 28, Item 9: the word *uhafu* should be “uhhafu”.
  - Ikhasi 30, Item 23: igama *Wayeneminyaka* – kumele u *W* abe u “w”.  
Page 30, Item 23: in the word *Wayeneminyaka* – *W* should be “w”.
  - Ikhasi 31, Item 24: igama elithi *unohafu* kumele lithi “unohhafu”.  
Page 31, Item 24: the word *unohafu* should be “unohhafu”.
  - Ikhasi 34: umusho othi: *UEmily wathatheka nge Izinyoni* kumele uthi: *UEmily wathatheka ngezinyoni*.  
Page 34: the sentence: *UEmily wathatheka nge Izinyoni* should state: *UEmily wathatheka ngezinyoni*.
  - Ikhasi 34: umusho othi: *Emva kwesikhashana uyise wathengela ingane ngayinye u-ayisikhilimu ngesikhathi yena inkomishi yekhofi* kumele uthi: “*Emva kwesikhashana ubaba wathengela ingane ngayinye u-ayisikhilimu ngesikhathi yena ephuza inkomishi yekhofi*”.  
Page 34: the sentence: *Emva kwesikhashana uyise wathengela ingane ngayinye u-ayisikhilimu ngesikhathi yena inkomishi yekhofi* should state: “*Emva kwesikhashana ubaba wathengela ingane ngayinye u-ayisikhilimu ngesikhathi yena ephuza inkomishi yekhofi*”.
  - Ikhasi 35, umyalelo wokuqala: amagama athi *Nguwumfanekiso lokhu* kumele athi “*Ngumfanekiso lona*”.  
Page 35, first instruction: the words *Nguwumfanekiso lokhu* should be “*Ngumfanekiso lona*”.
  - Ikhasi 36, isibonelo C: amagama athi *ung ikhombise* and *kuyefaona* kumele athi “*ungikhombise*” and “*kuyefana*”.  
Page 36, example C: the words *ung ikhombise* and *kuyefaona* should be “*ungikhombise*” and “*kuyefana*”.
  - Ikhasi 37, umyalo ophezulu: igama elithi *umagqa* kumele lithi “*umugqa*”.

Page 37, the instruction at the top: the word *umagqa* should be “umugqa”.

- Amakhasi 42, 43 and 44: amagama athi *isifakekiso*, *isifanekiso* and *lesifanekiso* kumele athi “umfanekiso” and “lomfanekiso” noma athi “isithombe”.

Pages 42, 43 and 44: amagama athi *isifakekiso*, *isifanekiso* and *lesifanekiso* should be “umfanekiso” and “lomfanekiso” or “isithombe”.

- Ikhasi 43: amagama athi *ake uzane*, kumele athi “ake uzame”.

Page 43: the words *ake uzane*, should be “ake uzame”.

- Ikhasi 44, umyalo wokuqala: igama elithi *ingaphezula* kumele lithi “ingaphezulu”.

Page 44, first instruction: the word *ingaphezula* should be “ingaphezulu”.

- Ikhasi 49, umyalo ka Item 1: igama elithi *a thi* kumele lithi “athi”.

Page 49, the instruction for Item 1: the word *a thi* should be “athi”.

- Ikhasi 50 and 51, imiyalo ethi: *Sewulungile/* and *Sewulungile<sub>z</sub>* kumele abe ngumbuzo othi: “Sewulungile?”

Pages 50 and 51, the instructions: *Sewulungile/* and *Sewulungile<sub>z</sub>* should be the question: “Sewulungile?”

- Ikhasi 51, umyalo wesibili: igama elithi *aothi* kumele lithi “athi”.

Page 51, second instruction: the word *aothi* should be “athi”.

- Ikhasi 54, umyalo wokuqala: igama elithi *lezindonge* kumele lithi “lezi zindonga”.

Page 54, first instruction: the word *lezindonge* should be “lezi zindonga”.

- Ikhasi 54, umyalo wesibili: igama elithi *ngempensele* kumele lithi “ngepensela”.

Page 54, second instruction: the word *ngempensele* should be “ngepensela”.