

**THE PERFORMANCE OF RURAL SPEAKERS OF
NON-STANDARD AFRIKAANS ON THE
*DIAGNOSTIC EVALUATION OF LANGUAGE
VARIATION***

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DECEMBER 2010

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By submitting this thesis/dissertation, I, Kim Wendy Marsh declare that the entirety of the work contained therein is my own, original work, and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

DECEMBER 2010

ABSTRACT

Precise assessment of a learner's language abilities is imperative in order to identify a language disorder and thereafter to develop appropriate therapy goals. Precise assessment is often challenging within the South African context due to a lack of appropriate assessment instruments, amongst other things. These instruments are often inappropriate as they are potentially biased against South African learners, having been developed for and standardised on British or American learners. There are a number of cultural and linguistic limitations which affect the appropriateness of such instruments. A further problem involves the difficulty in distinguishing between language delay and/or disorder on the one hand, and mere difference in language on the other, due to the dialectal diversity of every language in the country. This thesis reports on a project aimed at addressing these aspects. Specifically, the thesis considers the performance of rural speakers of non-standard Afrikaans with and without a language delay and/or disorder on the Afrikaans version of the Diagnostic Evaluation of Language Variation (DELV); a child (paediatric) language assessment instrument which was developed in the United States of America and adapted and translated for use in the South African context. The DELV assesses the language skills of learners aged 4 years to 9 years, 11 months in terms of syntax, semantics, pragmatics and phonological skills. All items in the DELV tests skills and structures which are common among dialects, i.e. non-contrastive, allowing the instrument to be dialect-neutral. The Afrikaans DELV (DELV-A) was administered to 20 typically developing and 20 atypically developing 4- to 9-year-old speakers of non-standard Afrikaans in the Western and Eastern Cape. The aim was to ascertain whether the instrument is able to distinguish between typical and atypical language development in this population. In addition, the "Afrikaanse Reseptiewe Woordeskattoets" (ARW) was administered to the 20 atypically developing learners, in order to ascertain whether there is a correlation between the

DELV-A semantics subtest and the ARW, which is a vocabulary test. Results indicate that the DELV-A effectively distinguishes between language delay or disorder and mere language difference among speakers of non-standard Afrikaans, and that the DELV-A and ARW are similar in their diagnosis of below average vocabulary skills among atypically developing learners, although there was no significant correlation between the two tests.

OPSOMMING

Akkurate assessering van 'n leerder se taalvermoëns is noodsaaklik vir die identifisering van 'n taalafwyking en die daaropvolgende ontwikkeling van toepaslike terapiedoelwitte. Akkurate assessering is dikwels 'n uitdaging in die Suid-Afrikaanse konteks, onder meer as gevolg van 'n gebrek aan toepaslike assesseringsinstrumente. Bestaande instrumente is dikwels ontoepaslik omdat hulle potensieel Suid-Afrikaanse leerders benadeel, aangesien hulle ontwikkel is vir en gestandaardiseer is op Britse of Amerikaanse leerders. Daar is 'n aantal kulturele en talige beperkinge wat die toepaslikheid van hierdie instrumente beïnvloed. 'n Verdere probleem behels die onderskeiding tussen taalafwyking of -agterstand aan die een kant, en taalverskeidenheid aan die ander, as gevolg van die dialektiese verskeidenheid van elke taal in Suid-Afrika. Hierdie tesis handel oor 'n projek wat daarop gemik is om hierdie aspekte aan te spreek. Meer spesifiek fokus hierdie tesis op die prestasie van plattelandse sprekers van nie-standaard Afrikaans met en sonder 'n taalafwyking en/of -agterstand op die Afrikaanse weergawe van die "Diagnostic Evaluation of Language Variation" (DELV). Laasgenoemde is 'n pediatriese taalassesseringinstrument wat in Amerika ontwikkel is en daarna aangepas en vertaal is vir gebruik in die Suid-Afrikaanse konteks. Die DELV assesser die taalvaardighede van leerders van 4 jaar tot 9 jaar 11 maande in terme van sintaks-, semantiek-, pragmatiek- en fonologiese vaardighede. Alle items in die DELV toets vaardighede en strukture wat algemeen tot alle dialekte van Afrikaans is, d.w.s. nie-kontrasterend is, en laat die DELV sodoende toe om dialek-neutraal te wees. Die Afrikaanse DELV (DELV-A), is toegepas op 20 tipies-ontwikkelde en 20 atipies-ontwikkelde 4- tot 9-jaar-oue sprekers van nie-standaard Afrikaans in die Wes- en Oos-Kaap. Die doel was om te bepaal of die instrument daartoe in staat is om te onderskei tussen tipiese en atipiese taalontwikkeling in hierdie populاسie. Die Afrikaanse Reseptiewe Woordeskattoets (ARW), 'n woordeskattoets, is ook toegepas op 20 atipies-ontwikkelende leerders, om vas te stel of daar 'n korrelasie tussen hul prestasie op die DELV-A semantiek

sub-toets en die ARW is. Die resultate dui daarop dat die DELV-A suksesvol kan onderskei tussen taalafwyking of -agterstand en blote taalverskil onder sprekers van nie-standaard Afrikaans. Resultate dui verder daarop dat die DELV-A en ARW ooreenstem in hul diagnose van onder-gemiddelde woordeskatvaardighede in atipies-ontwikkende leerders, alhoewel daar geen statisties beduidende korrelasie tussen die twee toetse was nie.

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CHAPTER 1

INTRODUCTION

Unbiased assessment of children's language abilities is a continuous and growing concern for researchers (Campbell, Dollaghan, Needleman & Janosky 1997), especially in communities as culturally and linguistically diverse as South Africa. This problem is two-fold. Firstly, learners with different language abilities (i.e. who speak a non-standard dialect or variety) may be misdiagnosed as language-impaired. Secondly, learners with impaired language may have this ascribed to language difference and therefore not receive the clinical intervention they require. The development of appropriate language assessment instruments, which may successfully distinguish between language disorder or delay and typical (but possibly different) language development, is often problematic in South Africa, due to the multiple linguistic and cultural groups. The problem is exacerbated by the constraints of financial and human resources. Thus it is often regarded as more advantageous to adapt and/or translate an existing assessment instrument.

The selection of an appropriate assessment instrument for such adaptation and/or translation can be challenging due to the dialectal variation across languages in South Africa, which may cause misdiagnosis of a language disorder or language delay. Instruments which tests vocabulary, grammatical structures, or sounds that vary from one dialect to another are not appropriate in this context. Many assessment instruments test only surface level aspects of language, potentially discriminating against certain dialects, rather than offering analysis of deeper-lying language skills. This problem of dialect-neutral assessment is a universal problem. The vast majority of research conducted regarding dialect-neutral assessment instruments, has been carried out in the United States of America (USA) (De Villiers, Roeper, Seymour & Zurer Pearson 2004), although various other countries such as Australia are

also beginning to address the issue of dialectal differences in effective language assessment. In Australia, researchers are realizing that culture and ethnicity must be taken into account when assessing language, especially in minority groups (Gould 2008).

It makes sense for South African researchers to build on and use what has already been discovered about the testing of deeper-level language skills in order to develop unbiased assessment instruments. The Diagnostic Evaluation of Language Variation (DELV) has been shown to accurately distinguish between language disorder or delay and a mere language difference in the USA, as it assesses deeper-lying linguistic skills. It was therefore selected by researchers at the University of Stellenbosch for translation and adaptation for the South African context.

The present study forms part of a larger project which aims to develop South African English and Afrikaans versions of the DELV, and has two main aims. The first aim is to compare the performance on the DELV of typically developing speakers of Kaapse Afrikaans¹ from a Western Cape School (WC) in Stellenbosch to that of language delayed speakers of non-standard Afrikaans from an Eastern Cape School (EC) in Graaff-Reinet. The second aim is to compare the performance of language delayed speakers of non-standard Afrikaans from Graaff-Reinet on the DELV to their performance on the Afrikaanse Reseptiewe Woordeskattoets (ARW). Both of these aims address the issue of whether the Afrikaans version of the DELV is effective in distinguishing a language delay or disorder from a language difference in a population of speakers of non-standard Afrikaans.

It is vital that this type of language assessment instrument is developed in order to facilitate more accurate assessment of all South African learners, in an

¹ The term “Kaapse Afrikaans” refers to a non-standard dialect of Afrikaans typically spoken by the so-called “coloured” people who predominantly live in the Western Cape region of South Africa. The term “coloured” is used here in a non-pejorative sense to refer to a particular ethnic group of diverse ancestry.

unbiased manner. Appropriate assessment tools allow Speech Language Pathologists (SLPs) to distinguish between language delay, language disorder, and language difference, where the latter is not an indication for clinical intervention. Such tools also draw the attention of SLPs to the dialectal differences of which they must be aware, in order to avoid misdiagnosis (Seymour, Bland-Stewart & Green 1998).

With permission from the Western Cape Department of Education (WCDOE) and the Eastern Cape Department of Education (ECDOE), data for the present study were gathered by means of administering the Afrikaans version of the DELV to 20 learners from WC and 20 learners from EC. The ARW was also carried out with the 20 learners from EC. The learners included both coloured and black² learners from WC and EC, aged 6 years 7 months to 9 years 10 months. The learners from WC presented with normal language development according to their educators and parents, whereas the learners from EC presented with a language delay according to their educators and the results of a screening protocol. The atypically-developing EC learners' performance on the DELV was compared to that of the typically-developing WC learners, as well as to their performance on the ARW.

In chapter 2, an overview is given of the relevant literature pertaining to dialectal variation, its implications for the clinical context, and the adaptation and translation of language assessment instruments. Chapter 3 presents an exposition of the development and purposes of the original DELV, as well as its adaptation for use in the South African context and its translation into Afrikaans. Chapter 4 presents the methodology followed in the present study. In chapter 5, the data is presented and discussed in terms of the two research aims. Chapter 6 offers a brief discussion of the findings and their implications.

²The term "black" is used here in a non-pejorative sense to refer to a particular ethnic group.

CHAPTER 2

LITERATURE REVIEW

Language assessment instruments are often inappropriate in testing speakers of various non-standard dialects as they are generally developed for use with speakers of the standard dialect where speakers are usually from a particular geographical location and particular social class. Wolfram (1983:21), referring to language assessment instruments in general, states that “the recurring concern in language assessment is whether these instruments actually reveal what they are designed to measure.” This statement suggests that these types of instruments often pose various linguistic and sociolinguistic difficulties in determining whether a learner is language disordered or merely presents with a difference in language, i.e. a non-standard variety or a variety different from the one upon which the instrument was standardised. This may lead to a misdiagnosis of a mere language difference as a language delay/disorder. Thus, for example, when speakers of minority varieties are tested against the norm, they may be diagnosed as having a disorder, when in fact the low scores are due to their minority variety. On the other hand, and equally detrimental, they may not receive the intervention which they do in fact require because their deviations from the norms are assumed to be due to the nature of their dialect (De Villiers, De Villiers, Roeper, Seymour, & Zurer Pearson 2004). Sections 2.1 to 2.3 offer a brief exposition of some of the literature pertaining to these problems, and section 2.4 discusses some of the solutions which research has suggested in both the global and South African context.

2.1 Language variation in the clinical context: Some terminology

Language variation may be characterised by the various dialects that one may find within a specific population group (Wardhaugh 2006). Dialects are characterized into two main groups, namely social dialects and geographical

dialects. A social dialect is a form of language use associated with a particular social class within a society (Matthews 2007). For example, a Cape coloured speaker may say something such as *Hulle het daai ou met die gun geskiet* (They shot that guy with the gun), while a white Afrikaans speaking farmer would rather say *Hulle het daardie man met die geweer geskiet*. A geographical dialect, on the other hand, is a form of language use associated with the geographical location the speaker is exposed to. For example, a learner from the USA may say *I would like some soda please*, whereas a South African learner may say *I would like some cooldrink please*.

Language is used amongst mankind to communicate via means of voice or writing (Matthews 2007). When discussing language variation, it is important to distinguish between the terms “language” and “dialect”. The term “language” refers to a single linguistic norm or otherwise to a group of related norms, whereas a dialect is a particular variety of a language, characterized by certain phonological and/or grammatical features which differ from other dialects of the same language. The term "dialect" is often used interchangeably to refer to a language variety (Wardhaugh 2006). In the above examples, the Cape Coloured speaker and white Afrikaans farmer may be said to speak two different varieties, although either one may also be able to speak the other variety.

A language is a code used by speakers within a community in order to communicate with each other. The occurrence of varieties of language is commonly due to an individual's way of using language in various contexts (Wardhaugh 2006). A language variety is a “set of linguistic items with similar distribution” (Hudson in Wardhaugh 2006:25). A variety is thus characterized by particular linguistic items which exist within the variety and across speakers of that variety. These differ from, or are absent from, other varieties of the same language, where each language variety has a particular social distribution (Wardhaugh 2006).

Varieties of a language are more often than not influenced by the cultures and backgrounds which speakers come from. One's culture relates to one's view of the world, one's value system, one's behaviour and/or language rules and possibly the customs, all used by a certain group of people (cf. Taylor & Payne 1983). Culture and ethnicity may be but are not necessarily linked. Members of a particular cultural group may or may not be of the same ethnic group and those of the same ethnic group may not always be of the same cultural group. Culture is influenced by age, gender, geographical region, social and economic status and the amount of formal education an individual may have (Taylor & Payne 1983). For these reasons, and as we shall see later, culture may have an impact on language assessment procedures.

Dialectal variation, which as explained above, often goes hand-in-hand with cultural and/or ethnic variation, leads to particular issues in the area of language assessment. In the USA, for example, in earlier decades, language practitioners sometimes argued that speakers of non-standard dialects should not be treated at all, or in other cases, that their dialects should be treated as a communication disorder (ASHA 1983). Such opinions may at times have been influenced by socio-historical factors which played a role in the development of the non-standard varieties, such as African American English. In this regard, the American Speech-Language-Hearing Association (ASHA) has taken the stance that every variety of a language is as appropriate as the Standard variety of this language (ASHA 1983).

In the present context, the term "assessment" refers to the process which an examiner follows in order to gain information to be evaluated in order to compile an accurate view of the learner and his/her skills. The term "testing" refers to the use of a procedure which has been developed in order to rate a learner's performance on a specific skill (Taylor & Payne 1983).

When dealing in the field of language assessment, the terms “deficit” and “difference” must also be clearly distinguished. The term “deficit” is used to refer to an altered form of a language, and as such is often used as a synonym for “disorder”. For example, what may be regarded as a legitimate feature of African American English (AAE) may be regarded as a deficit of a non-AAE speaker. In Mainstream American English (MAE), for example, a learner may use a sentence such as *John is a boy*. In AAE, a learner may use *John ___ a boy*. This latter type of construction is appropriate and grammatically correct for an AAE speaker, but not for a MAE speaker. The term “difference”, then, refers simply to variation in terms of dialect or variety of the language (Seymour, Bland-Stewart & Green 1998). These two phenomena (i.e. difference and deficit), may be confused by the less-informed SLP, as s/he erroneously classifies a difference as a disorder, due to his/her lack of knowledge about the dialects concerned, as well as his/her lack of understanding of the implications of dialectal differences. An example of the deficit-difference dilemma arises when a learner’s use of language is appropriate in one dialect, but not in another, as with the AAE vs. MAE example discussed above.

2.2 Language variation in South Africa

Historical linguists investigating the origins of Afrikaans mostly agree that it developed from the Early Modern Dutch spoken in the Cape in the early 1700s, known as “Cape Dutch” (cf. Raidt 1989; Ponelis 1993; Roberge 1993). Afrikaans was established as the first language of both white and coloured individuals in the Cape by the early 1800s. By the late 1800s, Afrikaans was firmly established into the multilingual society of South Africa (cf. Ponelis 1993). According to census data reported by Statistics South Africa (STATSSA 2009), Afrikaans is the first language of 39.8% of homes in the Western Cape (Van der Merwe & Van Niekerk 1994). At least 46% of all Afrikaans speakers

live in the Western Cape and Northern Cape provinces, whereas 10.3% of Afrikaans speakers live in the Eastern Cape.

With this diverse geographical distribution comes distribution in terms of social class and ethnic group, and a number of non-standard varieties of Afrikaans. One of these is the before-mentioned Kaapse Afrikaans or simply "Kaaps", spoken by the learners who participated in the present study. Kaapse Afrikaans differs from standard Afrikaans and other varieties in a number of ways. On the phonological level, for example, the [iə] diphthong is raised to the [i:] vowel in words like *weet* (to know), which is pronounced [vi:t] in Kaapse Afrikaans, and [viət] in standard Afrikaans (Van Rensburg 1990). On the syntactic level, Kaapse Afrikaans can be distinguished by the use of constructions such as the *met...saam* (with...) construction, as in *Hy bly met my saam* (He lives with me) which would be regarded as ungrammatical in standard Afrikaans (Claasen & Van Rensburg 1983). The grammatical form of this sentence would be *Hy bly saam met my*. Finally, Kaapse Afrikaans differs from other varieties on the lexical level, by using many borrowed words from English, such as that in the *gun* example in section 2.1 above. Indeed, Dyers (2007) suggests that Kaapse Afrikaans is defined by its mixture of English and Afrikaans. In terms of the present study, then, the SLP must be aware that a coloured learner saying *Ek gebruik daai bat met my ball saam* (I use that bat together with my ball) is using a non-standard dialect, whereas a white learner using the same construction may be exhibiting a language disorder.

2.3 The implications of linguistic and cultural variation for child language assessment

Research in the USA has revealed a number of clinical implications of language variation. Interest in this area began as a result of concerns of discrimination against minority groups who spoke non-mainstream dialects, such as AAE (cf. Wolfram 1983, Vaughn-Cooke 1983, ASHA 1983).

As pointed out by Taylor and Payne (1983), biased language testing may result in placement of learners from culturally and linguistically diverse backgrounds in special education schools, or they may be seen as language disordered when in fact they are not. An examiner must remember that a learner's performance on assessment tools is influenced by the learner's dialect, values, their view of the world, upbringing and social behaviour rules. When these variations in learners are not taken into account, it may lead to faulty management of the learner in future and incorrect goal setting for intervention (Taylor & Payne 1983).

Bias is one of the fundamental concerns within the area of language assessments. This may be the case even within objective assessments such as observations and the gathering of spontaneous speech samples. Taylor and Payne (1983) suggest that there are four main types of bias, namely (i) situational bias, (ii) directional bias, (iii) value bias, and (iv) linguistic bias. Situational bias involves observing the pragmatic functioning of language. This behaviour includes any social interaction between communication partners during self-play as well as self-communication. The examiner has the responsibility to elicit and record the language produced in a structure of various communication rules. This is the case where differences may occur between the learner and examiner (Taylor & Payne 1983). For example, an examiner may misread a learner's response to a question with silence, as inappropriate, whereas for the learner, this response may be appropriate and influenced by his or her cultural background. This type of difference or misunderstanding may result in flawed assessment of the learner's skills.

Directional bias is defined as being influential on a learner's response due to the instructions provided and/or the way in which these are presented. Assessment procedures usually occur in a similar setting to a classroom or play activity. Most learners are familiar with this type of activity (Taylor & Payne 1983). However, there are some learners for whom this type of activity

is not consistent with their educational or play set-up. This is influenced by the various child rearing activities in each culture. The characteristics of the instructions, such as their content, syntactic complexity and length, may be a cause of bias. For example, the use of multiple choice questions or a syntactically complex sentence which requires the learner to decode the meaning of the question prior to answering it, may be problematic for some learners.

Value bias may occur when a learner is expected to indicate what s/he thinks may occur in a specific situation. These types of questions may assess ethnic responses rather than the learner's linguistic abilities. Another source of value bias may involve the use of timed testing. This is a source of bias as some cultures place more importance on contemplation than do others. Thus, if timed, a learner may not be provided the appropriate opportunity to contemplate his/her answers before answering the question. Linguistic bias occurs as a result of the utilization of an assessment tool which assesses a given language which is in fact not the learner's first language. In this case, bias may occur when an examiner presumes that an assessment instrument should be altered due to a dialect (Taylor & Payne 1983).

Taylor and Payne (1983) suggest five main guidelines which need to be followed in order to prevent bias toward cultural and dialectal variations, namely (i) materials must be selected so that they are not discriminating towards a specific race or culture; (ii) the assessment must be administered in the language in which the child is most proficient; (iii) the assessment instrument must accurately examine the learners' abilities rather than their lack of abilities; (iv) the specific purpose of the material must be evaluated by professionals; and (v) the test must be administered by a trained professional.

2.4 Solutions for the clinical context

2.4.1 Research in the global context

Research in the USA has led to a number of possible solutions to the problems caused by dialectal variation in the clinical setting. A number of the relevant studies will be discussed here.

2.4.1.1 *Testing non-contrastive features*

For a speaker to have sufficient linguistic skills to communicate adequately, he or she must have knowledge of vocabulary items, their grammatical relationships and their categories. These skills exist at a more complex level than the language skills tested by a traditional assessment instrument (Wolfram 1983). These are also skills which may vary according to the dialect of language. Generally, language assessment instruments do not assess the entire scope of language skills, but rather a certain level within the language system. Often the manner in which aspects of language are tested leads to restrictions on the number of skills tested within a particular instrument. Research has indicated that greater differences are exhibited between standard and non-standard dialects when tested on a superficial level (Wolfram 1983). Such research therefore suggests that language is a complex phenomenon that is affected by differences in dialect, which should be taken into account. For example, in a sentence completion test item such as *Here is a dog. Here are two __*, the standard English response would be *Here are two dogs*, whereas an acceptable Vernacular Black English (or AAE) response would be *Here are two dog* (Wolfram 1983). If the tester is aware of the dialectal norms of Vernacular Black English speakers, this response would be considered an appropriate one and would be marked as a correct response.

Vaughn-Cooke (1983) suggests that an essential step in creating accurate and unbiased assessment instruments is to determine which aspects of linguistic variation represent the diversity and which cause dialectal bias. Thus, the focus of unbiased test items would be on non-contrastive features, which are features that are shared by multiple dialects and are least influenced by context variation. Therefore, if we can find exclusively non-contrastive features for testing each domain of language, we may succeed in the development of an appropriate assessment of non-standard dialects by eliminating bias against minority linguistic varieties. These types of features are elements which are identical in both standard and non-standard forms of a language and are least influenced by context variation. These could be elements such as conjunctions, demonstratives and prepositions which have no evidence of being different in standard and non-standard forms of language (cf. Seymour, Bland-Stewart & Green 1998).

2.4.1.2 Taking sociolinguistic factors into account

There are a number of sociolinguistic factors which may influence a learner's performance during language assessment. Sociolinguistic problems occur when assessment instruments cannot be applied across cultural groups, as they are limited to the group of speakers upon whom they were standardised. This leads to a further problem as it is difficult to interpret test results against a normative population which differs from the test population. In order to interpret test results of a minority group appropriately, the tester must have a thorough understanding of the linguistic variety that s/he is testing.

Sociolinguistic issues may also come to the forefront in the manner in which test items are presented, possibly influencing the type and amount of information gained. For example, directions should be presented in such manner as to eliminate any possibility of misinterpretation by a speaker of a non-standard dialect. Presenting tasks which require cloze responses such as

a *yes* or *no* response, is one possible means of eliminating difficulties in scoring responses, as there are only a limited number of possible responses. It is also important to recognize that a learner's background experience is an influencing factor on test item responses, especially when context-dependent test items are used. Context-dependent test items mean that a child is required to have some sort of background knowledge and context of an event in order to interpret the item presented to them. Thus, it is vital to take into account the various influencing factors when creating an assessment tool (Wolfram 1983).

Research in the Australian context has indicated that the same problems are arising with the assessment of Non-standard English or Aboriginal English. Some of the difficulties found are as follows: (i) there may be a mismatch between the child, the examiner and the assessment tool, (ii) reduced understanding of this Non-Standard dialect and the communication style that goes along with it, (iii) the different world views associated with Aboriginals and non-Aboriginal Australians which have an effect on their language use (Gould 2008). Gould (2008) indicates that assessment instruments, whether standardized or non-standardized, are influenced by cultural aspects, either from the learner or from the examiner herself.

2.4.1.3 Considering dynamic assessment

Ukrainetz, Harpell, Walsh and Coyle (2000) conducted research in relation to dynamic assessment of young learners. This type of assessment relies on observations of learners' responses to learning situations, rather than traditional assessment methods. This includes information on how the child responds to tasks, the error sequences which occur and the learners' ability to correct themselves when an error occurs. This type of assessment involves observing the learners' responses to intervention, how they adapt their behaviour to the situation and the extent of the effort by the examiner to cause

this change. Therefore, the assessment includes a time period of intervention where the environment is structured to improve learning behaviors. This type of assessment was used as these researchers found that low-income learners from minority groups usually present with low scores on traditional testing. This type of testing is unbiased toward minority groups as learning is an opportunity for all, despite the cultural community a learner comes from.

Pena (in Ukrainetz et al. 2000) demonstrated how dynamic assessment is unbiased toward learners from minority groups by conducting a study of Puerto Rican and African American preschoolers. These learners were identified by parents and/or teachers as either typically or atypically language developing. Both typically and atypically developing groups of learners achieved poor scores on a naming test. These learners then received learning experiences in this regard and were thereafter retested. Post-test scores demonstrated that typically developing learners performed better than atypically developing learners irrespective of the results of the first assessment (Ukrainetz et al. 2000). These results indicate that learners are often not exposed to testing situations and therefore this affects their responses on formal standardized tests.

Research in the global context has shown that there are multiple problems which exist when assessing learners of varying linguistic backgrounds. Examiners should have adequate knowledge of the dialect and culture being assessed, be appropriate in their interactions with the learners and take into account varying responses of the learners. Assessment instruments may need to be adapted to varying degrees, by looking at scoring, presentation and format of the instrument used with these learners from diverse backgrounds.

2.4.2 Research in the SA context

Imperative in developing a language assessment instrument is to take into account the various characteristics of the learner being assessed (dialect, culture and socio-economic background), as well as the assessment instrument itself (cultural, linguistic and age appropriateness thereof) (Penn 1998). Individual learners participating in language assessment have specific characteristics which define who they are and influence their linguistic development. These characteristics include both cultural and socio-demographic variables. South Africa is a culturally, ethnically, and linguistically diverse society. The cultural and linguistic diversity presents certain challenges for SLPs in the assessment and remediation of child language, and for SLP researchers developing tests for this purpose. The problems are exacerbated by the dialectal variation within particular languages, which is widespread across geographical and social boundaries.

Many challenges face the developers of language assessment instruments within the South African context. These challenges include all of the implications mentioned in section 2.3, as well as (i) financial constraints, (ii) human resource constraints, and (iii) test-inherent difficulties due to the unique linguistic and multicultural situation. A number of studies have been conducted in efforts to address these issues in the South African clinical context, and their findings are discussed below.

2.4.2.1 *Financial constraints*

The development of new tests within the South African context holds significant financial implications, due to the extent of linguistic diversity in the country (Alant & Beukes 1986). Developing tests for every language, and standardizing these tests for all speakers of every dialect in each language, seems an almost impossible task. This is the reason why researchers rather

look at the adaptation of existing tests, as it is a more viable option, with reduced financial implications.

2.4.2.2 Standardisation issues

In addition to the above issue, the test settings which South African SLPs have to deal with are one of the major challenges in test development. Existing tests are based on sample groups, who are normally majority groups of standard language speakers, restricting the generalizability of the norms to minority groups (Klop & Tuomi 2007). In the case of these minority groups, SLPs often have little information on the characteristics, rules and functions of their varieties (Alant & Beukes 1986; Pakendorf & Alant 1997). On the other hand, if a test is standardised on a minority group, it will have limited applicability across other groups. SLPs are often not mother tongue speakers of the language in which they are testing (Penn 1998), and this may further hinder accurate scoring and diagnosis.

At present the vast majority of language tests used in South Africa are standardised on either American or British populations. These are not appropriate for effective assessment in South Africa, as the learners differ dialectally as well as culturally from the standardisation population (Van Dulm & Southwood 2008). A language assessment tool which can be applied across dialect and cultural groups must be based on a thorough understanding of language features which can be used to test deeper-lying dialect-neutral language skills.

2.4.2.3 Cultural bias

A related issue concerns with the cultural bias (Alant & Beukes 1986) toward certain groups of learners within assessment instruments. Culture and life experiences are two interactive factors which include different values and

different social practises and attitudes toward literacy in the up-bringing of each learner (Klop & Tuomi 2007). Here the emphasis on education, use of toys and books to teach language and cognitive skills may vary from culture to culture. For example, in some cultures, language is only used for communication and not heuristic functions (Penn 1998). This is true of many South African cultures, especially those located in rural areas. Such culture-specific practices cause each learner to acquire their linguistic skills in different manners depending on their experiences, which later affects their responses in formal language assessments.

Socio-demographic variables impact on a learner's performance in norm-referenced tests and even possibly in spontaneous speech production depending on their linguistic exposure (Klop & Tuomi 2007) as well as their familiarity with test material (Solarsh & Alant 2006). The demands of a western education system and those of rural Africa are at two opposite extremes, as they have different emphasis on the exposure of a learner to formal education (Solarsh & Alant 2006). This means that each learner will have varying educational experiences, causing their linguistic experiences to vary accordingly. For example, a learner who lives in a rural farming community might have less exposure to formal education than a learner that lives in a city or town. This does not necessarily mean that rural learners will have a delay in the development of their language skills, but rather that their skills and responses to tasks may differ. Thus we need to consider the ways in which we elicit responses in language testing, what we expect from the learner as well as how we score the learner's response. When developing an assessment tool, it is therefore vital to take into consideration the diversity of the learners who come from various dialectal, cultural and socio-economic backgrounds as it influences their linguistic experiences and later their linguistic skills. These factors must be taken into account when devising a test in order to ensure applicability to all groups of learners.

When looking at specific assessment tools it is important that the tool is culturally and linguistically appropriate for the group on which it is standardized as well as the group it is used to test. This involves evaluating the pictures and concepts associated with the test and making sure that all items are culturally and linguistically appropriate. It is vital to take into consideration the particular linguistic forms as well as the significance of specific items within the communities to be tested (Alant & Beukes 1986). This is important as certain topics may, for example, be taboo in some cultures, but may be appropriate for others.

Labov (1977 in Solarsh & Alant 2006) indicated that in terms of the presentation of items, administration as well as scoring techniques, the tester needs to have a thorough understanding of the cultural norms of the learner being tested. This may include societal norms as well as the way in which language is used in the community. Knowledge of these techniques is required in order for the SLP to be equipped to elicit the most representative possible answers from a learner of a minority group, and to appropriately assess the responses of the learners. Another influencing factor on the learner's response is the ethnicity of the tester. Learners are often found to provide more lengthy responses when faced with a tester of the same ethnicity as them, as it improves the familiarity of the test situation. Therefore it is often viable to train up non-professionals to perform testing in order to achieve better responses from the learners, as suggested by Labov (1977 in Solarsh & Alant 2006). Probing may also be used as a technique by testers in order to elicit spontaneous speech samples as well as the target structures and content required by the test item. This may even include the use of neutral probes such as *umm*, which indicates to the learner that the tester requires more, but that the previous answer was not necessarily incorrect (Solarsh & Alant 2006).

Similar problems to the cultural bias and socio-demographic variables mentioned above also occur within the South African context when assessing learners' linguistic skills. Testers must therefore have a good understanding of the dialectal influences on the learner they are working with. For example, in articulation tests there are differences in linguistic forms depending on the dialect spoken, and knowledge of these forms plays an important role when scoring the learner. The tester should also be informed of the culture of the learner and the implications this may have on their development and responses. For example, it may be culturally biased against a learner from a rural area to use a test item which includes sea animals, as these learners may not necessarily have been exposed to this type of animal in their community.

2.4.2.4 Issues in test adaptation

A concern in terms of test adaptation is to ensure that the main aims of the test are not affected in the process. This may occur, for example, when items are adapted in a word list, when cultural adaptation of pictorial stimuli occurs, or when there is reordering of the presentation of items. This may be counteracted for instance by changing the pictorial stimuli to be less context-dependant such as using a picture of a child with a cat or dog, rather than in the context of sea animals. The test responses which are regarded as (in) correct and/or (un)acceptable may also need to be reviewed in light of the dialect and culture of those to be tested. It is essential to take into account alternative culturally appropriate responses, and those which may include code-switching (Penn 1998). Thus, the scoring of responses may need to be adapted (Van Dulm & Southwood 2008). The inclusion of culturally-appropriate responses in scoring for South African learners should also be addressed. Some cultures may use code-switching between English and Afrikaans and others may have a variation in their responses which may be appropriate for South African learners, but not American or British learners. For example, *Sy het met die ball gespeel* (She played with the ball).

As noted by Solarsh and Alant (2006), validity and reliability must be taken into account with test development. Validity and reliability of a test can only be achieved with effective holistic translation where the appropriate adaptation of instructions, test items and responses are carried out. When translating test instructions, it is essential that simple sentences are used, that metaphors and colloquialisms are avoided and that linguistic categories such as pronouns and passive tense are avoided. It is sometimes difficult to follow these guidelines in certain languages, especially when testing language and at times, requiring that these very categories be tested. The process of translation is a complex one which, according to (Alant & Solarsh 2006), should be guided by the following six steps: (1) The translator should be bilingual and have sufficient knowledge of the concepts presented in test manuals and record forms. (2) Translation by an individual with no previous knowledge of the test should occur from the target language back to the original language. (3) This translation should then occur back to the target language until no further errors occur. (4) The translation should then be analysed by a committee of researchers from various regions and target dialects. (5) A series of pilot tests should be done in order to make further changes of items which did not elicit appropriate responses. (6) Field testing should be conducted, whilst still being aware of possible inaccuracies.

2.4.2.5 Literacy issues

In South Africa, relatively little research has been conducted to assess the literacy and language skills of learners from different cultural groups at school entry level. Klop and Tuomi (2007), however, reported that poor performance amongst disadvantaged grade 3 learners on literacy assessments in South Africa may be ascribed to (i) large numbers of learners in a classroom, (ii) lack of resources, (iii) lack of appropriately trained educators, (iv) various socio-economic factors, as well as (v) lowered school entry level language skills. Learners are often educated in a language which is not their

mother tongue, even though they may be bilingual or multilingual speakers. Learners' lack of proficiency in the language of instruction may be a major influence on their education levels (Klop & Tuomi 2007). Due to lowered school entry language skills, research has proven that often these learners may not catch up these language skills but rather this delay has a greater influence on all other educational learning subjects.

The above discussion pertains to the literature related to the clinical issues associated with dialectal variation, namely financial constraints, standardisation issues, cultural bias, issues in test adaptation and literacy issues. Chapter 3 below gives an exposition of the DELV, the adaption thereof and how these adaptations attempt to address the issues.

CHAPTER 3

DIAGNOSTIC EVALUATION OF LANGUAGE VARIATION

One alternative approach to language assessment discussed in section 2.4.1 involves the dynamic assessment of learners' language. However, a number of the studies reviewed in chapter 2 suggest another alternative, namely the assessment of non-contrastive aspects of language, i.e. aspects which do not differ across dialects, and which can therefore be assessed without discriminating against speakers of non-standard dialects and from different cultural groups. This chapter focuses on the DELV, which was developed for this purpose in the USA, as well as its adaptation for the SA context and its translation into Afrikaans.

The challenges which linguistically and culturally diverse populations bring to language assessment were discussed in Chapter 2. These include (i) test items which are biased toward a specific group of learners, (ii) context-dependant test items, (iii) test items targeting linguistic features which vary depending on dialect, and (iv) examiners who lack awareness of the effect of linguistic and cultural diversity on the testing situation, and/or knowledge of the dialects spoken by the test population. Seymour, Roeper and De Villiers (2005) address these factors in the development of the DELV. They state that SLP's can use the original DELV in the USA context "to identify a learner as having a speech or language disorder, regardless of the variety of English the learner speaks" (Seymour et al. 2005). The DELV is unbiased in terms of dialect, as it uses test items which target features which are shared by dialects and takes into account the cultural appropriateness of the test items.

It is vital to take linguistic bias into account when developing appropriate means of assessment for learners from various dialectal groups. The issue of dialect neutrality is addressed by the DELV both through the individual items as well as in the test as a whole. The principle that the researchers followed in

the development of the DELV was to construct items based on the fundamental structures of universal grammar which are common amongst USA dialects of English (Seymour et al. 2005). The items within each of the four language domains tested follow this principle. For example, when a learner is required to recognize the missing information in a pragmatics task (cf. section 3.4.2 below), this is a skill which all learners of all dialects need to master in the course of normal language development. Thus universal language ability is assessed through the scoring of a learner's use of functional language, rather than eliciting specific target productions.

3.1 The use of non-contrastive features

Using common features of language varieties, also known as non-contrastive features; means that the structures targeted by the test items are commonly used across all dialects (cf. Van Dulm & Southwood 2008). These items therefore do not show bias toward a specific dialect. Seymour et al (2005) have conducted research on the use of non-contrastive features in the assessment of language skills and found it to be successful. The researchers compared speakers of African American English (AAE) and Mainstream American English (MAE) and found that the use of linguistic patterns which do not contrast between the two dialects (i.e. non-contrastive features) was successful and more revealing than the use of contrastive features in identifying language disorders (Seymour, Bland-Stewart & Green 1998). Seymour et al. (1998) showed that all features associated with one dialect may not have equal frequency of occurrence in another, thereby causing potential bias.

One such feature which leads to a non-contrastive test item for syntax is double Wh-Questions, such as *This boy eats different things in different ways. He eats ice-cream with a fork and grapes with his fingers. How does the boy eat what?* Such double Wh-Questions involve exhaustivity, meaning that they require full and exhaustive responses, such as *The boy eats ice-cream with a fork and*

grapes with his fingers, unlike most questions which have multiple appropriate responses (Roeper 2004). By asking a double Wh-question, the test item is asking two questions at once and assessing the learner's ability to pair the objects appropriately. Results for such Wh-Question items in the DELV indicate that the construction is dialect-neutral, as the results are the same for both AAE and MAE varieties of English (Roeper 2004).

One non-contrastive semantic skill which has been shown to elicit similar responses from speakers of both AAE and MAE is that of fast mapping (De Villiers 2004). Fast mapping is the process whereby learners are able to guess the meaning of a new word via its syntactic context. Verbs are generally chosen for fast mapping items as they are dependent on linguistic context for meaning. They exhibit less variation among diverse cultures than nouns do, and language disordered learners seem to have weak vocabulary skills when it comes to verbs. Research has proven that even after one exposure learners are able to learn a new verb (cf. De Villiers 2004). For fast mapping the learner is shown three pictures in a sequence and is provided with a description of the event. The learner is then required to point to the people or objects named in the sentence provided. For example, the event description may be *The boy is throwing the ball*. The learner is then required to respond to the following statement *Which one was the thrower?* by pointing to one of the pictures.

3.2 Attention to cultural norms

The items in the DELV were selected in order to be neutral in terms of dialect as well as the social norms of the various communities for which it was developed. The pictorial stimuli of the DELV were also controlled in this regard, and were specifically designed to be multiculturally appropriate. For example, there are no exotic animals or references to holidays, and the pictured characters are of a range of ethnicities (Seymour & Zurer Pearson

2004). The DELV takes the cultural norms of the various groups to be tested into account, in that it provides a number of appropriate responses for any particular item, giving the examiner these options in the form of answer tables in the manual.

3.3 Allowance for socio-economic status

The DELV makes allowance for the effect of the socio-economic status (SES) of the parent/primary caregiver on the learners' language development. Learners' scores may be adjusted in terms of parental education level, which is taken to be a good indicator of SES. Four levels of parental education are distinguished, namely (i) 11 years or less of schooling, (ii) 12 years of school (high school), (iii) 13-15 years of school, and (iv) 16 or more years of education, and scores may be corrected to allow for this effect (Seymour, Roeper & De Villiers 2004).

3.4 The composition of the DELV

There are four main domains in the DELV assessment instrument, namely the Syntax, Pragmatics, Semantics and Phonology Domains. These will be discussed more specifically below.

3.4.1 Syntax Domain

When assessing syntax, it is important that the test items do not involve features which vary between dialects, but rather focus on features consistent between the dialects. This offers prospective dialect-neutral diagnosis of syntactic disorders.

The Syntax Domain of the DELV has three subsections, (i) Wh-Questions, (ii) Passive items and (iii) Article Items. In Wh-Question items, the learner is

shown a picture, then s/he is told something about the picture, and then s/he is required to answer a question about the picture. For example, the stimulus may be *Here are children playing with toys. Who is playing with what?* The learner is then required to respond appropriately to the question, by saying *The girl is playing with a doll and the boy is playing with a train.*

Passive items test a learner's understanding of passive sentence structures. For these items, the learner is shown three pictures and is required to point to the one picture which matches the stimulus. For example, the child is presented with pictures showing (i) an elephant pushing against a wall, (ii) an elephant being pushed by a man, and (iii) an elephant by himself. The learner is then given the statement *The elephant was pushed*, and must then point to the correct picture.

In the third section of the Syntax Domain, knowledge of articles is tested by eliciting responses containing either *a* or *the*. In these items, the learner is read a stimulus sentence and is then required to answer a question. For example, *Think of a baseball player. What does he have?* This statement should elicit a response such as *A bat* or *A ball*, but not *The bat* or *The ball*.

3.4.2 Pragmatics Domain

Pragmatics involves the use of language in communication and discourse. The items used in the DELV for assessing pragmatics generally focus on functional language skills which are important for early reading and writing development. Research has proven that communicative role taking tasks may be used as an unbiased manner to test pragmatics (De Villiers 2004). These tasks require the learner to understand what speech act another person is producing, by taking on their perspective. Research has revealed that these types of tasks are sensitive to learners' understanding of communicative role taking in pragmatics and are unbiased toward non-standard speakers.

The Pragmatics Domain consists of three subsections, namely (i) Communicative Role Taking, (ii) Short Narrative Items, and (iii) Question asking items.

In Communicative Role Taking, the learner is tested on his/her understanding of what should be said in a specific communication situation and which speech act is required. In these items, the learner is shown two pictures and is required to answer a question about what one of the characters in the picture is saying. For example, the learner may be shown a picture of a girl looking at a cake inside the fridge, followed by a picture of the girl speaking to her mother while pointing at the fridge. She is then asked *Look at what's happening here. Look at the girl. What is the girl asking her mother?* An appropriate response would be *Please can I have some cake?*

In the Short Narrative section of the Pragmatics Domain, items are aimed at measuring the learner's abilities to link events in time, to contrast characters, and to make reference to the mental state of the characters, through telling a simple story in response to a series of pictures and answering two questions. The pictures depict (i) A big brother stealing his little brother's toy train from him, (ii) The big brother hiding the train under the bed and then leaving the room, (iii) The little brother finding the train underneath the bed, (iv) The little brother putting the toy train into the toy box, (v) The big brother coming back into the bedroom thinking he should look for the train, and (vi) The big brother looking under the bed but unable to find the train. The child is scored according to his ability to refer to the two separate characters (e.g. *big brother* and *little brother*) and to use time sequencing words (e.g. *then, and then, before, while* or *until*). The learner is then asked to respond to what is happening in picture (v) (e.g. *The big brother is thinking about the train*), and to answer a question which asks why the big brother is looking for the train underneath the bed (e.g. *He thinks it is under the bed*).

In the Question Asking section, items aim to assess the learner's ability to ask questions in order to obtain specific information. The learner is shown a picture where there is something missing, such as a car with a passenger without a driver. The learner is required to ask a question in order to find out what is missing, such as *Who is driving the car?* and is then shown the answer.

3.4.3 Semantics Domain

Vocabulary tests are generally used when assessing semantics skills. In the case of culturally and dialectally diverse communities, it is difficult to find specific vocabulary items that are equally available in the input for every learner. This is evident as learners grow up in different environments and have different influences on their vocabulary development. The Semantics Domain has five subsections, namely (i) Verb Contrast Items, (ii) Preposition Contrast Items, (iii) Quantifier Items, (iv) Fast Mapping of common words, and (v) Fast Mapping of new words.

In the Verb Contrast section, the learner is tested on his/her knowledge of the association between verbs which have the same meaning. Here the learner is shown a picture and is required to finish a sentence with a verb associated with the picture. For example, shown a picture depicting two children both pulling on a train, and given the stimulus *They're not putting the train together, they're...*, the child is expected to respond with *... fighting over it.*

In the Preposition Contrast subsection, items assess the learner's understanding and use of various prepositions. The learner is shown a picture and is required to complete two sentences with prepositions. For example, shown a picture of a boy climbing up a ladder to fetch a cat which is stuck in the tree, and given the stimulus *He's not climbing with the cat, he's climbing...*, the child is expected to respond with *...to the cat.*

In the section targeting Quantifier Items, the learner is tested on his/her understanding of the meaning of the modifier *every*. There are two types of Quantifier Items. In the first type, the learner is shown three pictures and must answer questions about them. For example, a picture shows three cowboys on horses and one standing watching the others, and the child is asked *Is every man riding a horse?* In the second item type, the learner is shown two pictures and is required to point to the picture being spoken about. For example, the learner is presented with a statement *The man watched every boy throw a ball*, and must select the correct picture where one depicts a man throwing a ball to some boys and the other depicts the boys throwing balls at the man.

In the sections targeting the Fast Mapping of common words and the Fast Mapping of new words, the learner's ability to determine the meanings of words from the context within a sentence is assessed, as described in section 3.1 above. In these sections, the learner is shown three pictures in a sequence and is provided with a description of the event. The learner is then required to point to the people or objects named in the sentence provided. For example, the learner is presented with three pictures: (i) A man with a ball and apparatus, and a girl standing with river of water between them, (ii) The man puts the ball onto the apparatus to send it across the river to the girl, and (iii) The girl receives the ball on top of the apparatus. They are then presented with the event description *The girl is suggesting the man to send the ball*. The learner is then required to respond to the question *Which one was the suggester?*, by pointing to one of the pictures.

3.4.4 Phonology Domain

The fourth domain is the Phonology Domain, comprising a single section. This domain assesses the learner's production of consonant clusters within simple sentences in initial, medial and final positions in the words.

The learner is required to imitate a simple sentence such as *I see tall grass*, targeting the gr-cluster. Only clusters in initial and medial position in words were targeted as these are seemingly dialect-neutral (Seymour 2004).

3.5 Adaptation and translation of the DELV for use within the South African context

The DELV was adapted and translated into Afrikaans in order to address the clinical issues set out in chapter 2, and so to provide a dialect-neutral child language assessment instrument for South African children. These changes are discussed below in 3.5.1 and 3.5.2.

3.5.1 Adaptation to allow for cultural norms

The original DELV required a number of adaptations in order to be more culturally appropriate for use with South African learners. The South African culture is completely different to that of the USA population which the DELV was based on. For example, in the original DELV, there is a test item which makes use of a picture of a learner holding a milk carton. This type of item is inappropriate for the South African context, as most learners would never have been exposed to milk cartons. However in the newer, adapted version of the DELV, the milk carton has been changed to a coca-cola can, which is more culturally appropriate, as all South African learners would know what that is. Test items therefore need to be adapted to be culturally appropriate for South African learners, and should not be biased toward learners from a specific cultural background. Test items unfamiliar to South African learners may need to be adapted in order to reduce the negative impact they have on the scores obtained and the diagnosis of learners from a particular culture. The adaptations made to the original DELV in order to generate both the South African English and the Afrikaans versions, the DELV-SAE and DELV-A, respectively, are discussed below.

3.5.1.1. Changes made for cultural reasons to generate the DELV-SAE and -AP

The changes made to the original DELV in order to generate the preliminary Afrikaans version (DELV-AP), which was piloted using the Western Cape sample (cf. section 4.1.1), are briefly set out below.

In the Syntax domain, the picture stimuli and wording of items 2, 5 and 7 in the Wh-Question section were changed, as was the wording of items 22, 25 and 27 in the Article section. In item 2, the learner is presented with 3 pictures: (i) The mother is leaving the house, (ii) The mother is returning to the house with a cake, and (iii) The daughter, who cannot see the cake, is asking the mother what is in the shopping bag. The learner is told *This mother snuck out one night when her little girl was asleep and bought a surprise birthday cake. The next day the little girl saw the bag from the store and asked, "What did you buy?" The mom wanted to keep the surprise until later so she said, "Just some paper towels".* The learner is asked *What did the mom say she bought?* In the third picture, there is a roll of paper towel in the mother's speech bubble, and the learner is required to respond to the question with *paper towels*. The roll of paper towel was replaced with a picture of fruit, as paper towel is not commonly used in all South African homes. Furthermore, the wording of the appropriate response was changed from *paper towels* to *fruit* in English and *vrugte* in Afrikaans.

In item 5, the learner is presented with four pictures: (i) A clown is approaching two boys and is tickling one of them with a feather, (ii) The boy sneezes and blows the clown's hat off, (iii) The boys are going to the shop, and (iv) They are drinking some milk out of a carton. The learner is told *These brothers went to the circus. A clown came and tickled the little boy on the nose with a feather. He sneezed very hard and the clown's wig blew right off! After the circus, the brothers went to buy some milk. The little boy drank his milk with a straw, but the big brother drank his straight from the carton.* The learner is the asked

How did the boy who sneezed drink the milk? The expected response is *with a straw*. The cartons of milk were substituted with cans of cooldrink, as milk is no longer bought in small cartons in South Africa, and South African learners rarely buy themselves milk to drink. The wording of the appropriate response was therefore also changed from *milk* to *cooldrink* in English and *koeldrank* in Afrikaans.

In Item 7, the learner is presented with 3 pictures: (i) The boy is riding his bicycle and the sun is shining brightly, (ii) The boy gets some lemonade from a lady at a stall, and (iii) He is sitting against a tree drinking his lemonade. The learner is told *This boy was riding his bike, and he got really hot and thirsty. He decided to get some cold lemonade that he could splash on his face. He wanted to cool himself down under a shady tree. The lemonade was really cold and refreshing.* The learner was then asked *Where did the boy buy the lemonade to splash on his face?* The learner was expected to respond with *at the stall*. In the pictures, the lemonade was substituted with water, as “lemonade” refers to a specific soft drink in South Africa, thus the word *lemonade* was changed to the English *water* and Afrikaans *water*. The stall was changed to a back door, as such lemonade stands are unfamiliar in the South African context. The boy no longer bought his drink and therefore the possible and acceptable answers expected from the learners were changed from *bought* to English *got*, and Afrikaans *gekry*. Furthermore, *at the store; at the lemonade stand* was changed to English *at the door, from his mom*, and Afrikaans *by die agterdeur, by sy ma*.

In Syntax item 22, the child has to respond to the item *David got a pickle out of a jar, but he didn't close the jar afterward, and a fly got in. What did he not put back on?* with an article and a noun. In the list of responses, the word *pickle* was changed to *biscuit* in English and *koekie* in Afrikaans, as pickles are not commonly eaten by South African learners and are referred to as “gherkins”.

In Syntax item 25, in the stimulus *I'll bet you have something hanging on the wall of your room. What is it?*, the word *room* was changed to *house* in English and *huis* in Afrikaans, as many South African learners do not have their own bedrooms, but rather share a room or live in a single-room dwelling. Other possible responses, common to the South African context, were also included for this item, namely *waslap* (face cloth), *certificate* (sertifikaat), *umbrella* (sambreel), and *hanger* (hanger).

Finally, in Syntax item 27, the learner was required to respond to *Think of a baseball player. What does he have?* with an article and a noun. The term *baseball player* was changed to *cricket player* in English and *krieketspeler* in Afrikaans, as baseball is not a common sport in South Africa, whereas cricket is. The expected responses also changed from *baseball* to *cricket ball* (krieketbal).

In the Pragmatics domain, there were changes made to the pictures in trial item A, items 2, 12 and 15, and to the wording of trial item A and items 2 and 11. In trial Item A, two pictures are presented to the learner. The first is a picture of a postman giving a small girl a letter and the second the girl is telling her mother something. The learner is then asked *Look at what's happening here. Look at the girl. What is the girl telling her mother?* The word *mail* on the mail bag was substituted with the logo of the South African Post Office, so as to make the picture familiar and consistent for both the English and Afrikaans versions of the DELV. The wording of the item changed from *mail* to English *post* and Afrikaans *pos*.

In Pragmatics item 2, the learner is presented with a picture of two boys playing baseball outside and a boy speaking to his father. The learner is then presented with the statement and question *Look at what's happening here. Look at the boy. What is the boy asking his father?* The baseball bat was changed to a cricket bat and the mitt to a glove, as baseball is an unfamiliar sport in South

Africa. Thus the wording changed from *ball player* to *cricket player* (krieketspeler) and *baseball* was changed to *cricket* (krieket).

In item 12, where the learner is shown a picture of a girl fixing a toy and told *The girl is fixing the toy somehow. Ask me the right question and I'll show you the answer.* In this case, the girl is using glue to repair the toy car. The label *Pritt* was used to replace the pictured word *GLUE* in the original picture, as it is the most common brand name for glue in South Africa and is consistent in both English and Afrikaans.

In item 15, a boy is running toward an ice-cream stand and is told *Ask me the right question, and I'll show you the answer.* The learner is required to respond with; *Where is the boy running to?* The word *popsicle* on the ice-cream stall was removed, as it is not a commonly used South African word, and it therefore becomes consistent in both English and Afrikaans.

In the Semantics domain, there were changes made to the pictures in items 30 - 32 and the wording of items 3 and 30 - 32. In item 3, the learner is presented with a picture of a mother plaiting her daughter's hair, she is then presented with the stimulus *The mother's not combing her hair, she's ...* and is required to respond with *braiding it* or *brushing it*. The words *braiding it* and *brushing it* were replaced with *plaiting* (vleg) and *plaits* (vlegsels), respectively, as they are more commonly used in South African English and Afrikaans.

In items 30 - 32, the learner is presented with three action pictures and three object pictures. In the action pictures, a female postal worker is giving a letter to a boy. The learner is asked *Which one was the hander? Which one got handed? Which one was handing?* and is required to respond by pointing to the relevant picture. The postal worker's hair was shortened, as female postal workers are uncommon in the South African context, and the word *mail* on the mail bag was substituted with the logo of the South African Post Office, causing the

picture to be consistent for both the English and Afrikaans versions. The wording was therefore changed from *postal worker* to *postman* (posman), as it is the more commonly used term in South Africa.

3.5.1.2 Changes made for cultural reasons to generate the DELV-A

After the DELV-AP was piloted on the WC learners, further changes were made to generate the final DELV-A, which was administered to the EC learners (cf. Section 4.1.2). These changes, set out below, were based on the experiences of the testers in the testing situation, and were made in consultation with a team of practising South African SLPs, as well as the developers of the original DELV. None of the changes implied a possible difference in the overall performance of the WC learners (i.e. the overall scores were not deemed to have been significantly affected by performance on any of these items), and so the comparison undertaken in the present study between learners tested by the DELV-AP and those tested by the DELV-A is considered valid.³ The further changes to the test yielded the DELV-A, which is the final Afrikaans version of the DELV used to test the EC learners in the present study.

In the Syntax Domain there were changes made to items 2, 4, 5, 6, 7, 25, 27 and 28. In item 2, the picture of multiple fruits was changed to bread, as this may potentially lead to inappropriate responses such as *'n piesang, 'n appel ...* (A banana, an apple etc.). Therefore the appropriate responses were changed from *vrugte, kos* (fruit, food) to *brood, 'n brood, net brood* (bread, a bread, just bread).

³ In terms of the validity of comparing the performance of the WC learners on the DELV-AP to that of the EC learners on the DELV-A, note that the changes made between the two versions may have disadvantaged the WC learners, potentially lowering their scores. However, as the results show, the WC learners consistently outperformed the EC learners. The implication therefore is that the gap between the performance of the two groups would, if anything, have been widened had the same version of the DELV been used.

In item 4, the original wording was *Die seuntjie het 'n kat met 'n gebreekte been op 'n tafel sien lê. Hy kry toe 'n serf en maak die kat se been met die serf reg. Waarmee het die seuntjie die kat wat op die tafel gelê het, reggemaak?* (The boy saw a cat lying on the table with a broken leg. He took a scarf and fixed the cats leg with the scarf. How did the boy help the cat that's lying on the table?). The final sentence was changed to the more commonly used construction *Wat het die seuntjie die kat wat op die tafel gelê het, mee reggemaak?*

In item 5, as discussed above, the words *baie hard* (very hard) were included as additional responses under item (b), in relation to how hard the boy sneezed. In item 6, the learner is presented with a picture of a girl eating some food. They are presented with the stimulus *Hierdie meisie het buite gespeel. Skielik word sy honger. Sy besluit om kos by die snoepie te koop en dit op die strand te gaan eet. Sy vra vir 'n lepel, want sy hou altyd daarvoor om haar hamburger met 'n lepel te eet. Toe gaan sy strand toe. Waar het die meisie die hamburger gekoop om met 'n lepel te eet?* (The girl was playing outside. Suddenly she got hungry. She decided to get some food at a tuckshop and go eat it at the beach. She asked for spoon, because she always likes to eat her hamburger with a spoon. Then she went to the beach. Where did the girl buy the hamburger to eat with a spoon?). The wording was changed from *snoepie* (tuckshop) to *winkel* (shop) and therefore the responses in item (a) were also changed.

In item 7, as discussed above, the wording of the item was changed from *koelteboom* (shady tree) to *boom* (tree) and therefore the appropriate responses in item (a) were also changed and the response *in die koelte* (in the shade) was also added to (b). In item 25, as discussed above, the wording of the item was changed from *by die huis* (by the house) to *in die huis* (in the house). In item 27 as discussed above, additional responses were added in order to allow for loan words between English and Afrikaans. The changes occurred in 27(a), such as *'n bat* (a bat) and *'n bal* (a ball) and in 27(c), the response *kolf* (bat) was changed to *bat*.

Lastly in item 28, *Dink aan 'n polisieman. Wat het hy?* (Think of a policeman. What does he have?). Item 28(a) additional responses were added in order to allow for loan words between English and Afrikaans, such as *'n gun* (a gun), and in 28(c) *geweer* (gun) was changed to *gun*.

In the Pragmatics Domain, there were changes made to items 2, 3, 4, 10, 11, 12, 15, 16 and 17. In item 2, as discussed above, the wording was changed from *Kyk na hierdie seuntjie. Wat sê die seuntjie vir sy pa?* (Look at this boy. What did the boy say to his father?) to *Kyk na die seuntjie. Wat vra die seuntjie vir sy pa?* (Look at the boy. What did the boy ask his father?)

In item 3, the learner is presented with a picture where a girl is looking at a cake in the fridge and then asking her mother something. The wording was changed from *Kyk na hierdie meisie.* (Look at this girl) to *Kyk na die meisie.* (Look at the girl.)

In item 4, the learner is presented with a picture of a boy feeding his dog and his father speaking to him. The wording was changed from *Kyk na hierdie seuntjie.* (Look at this boy) to *Kyk na die seuntjie.* (Look at the boy).

In pragmatics item 10 the learner is presented with a picture of a girl swimming and in the second picture the learner is shown the answer. The learner is presented with the stimulus *Die meisie het iewers gaan swem. Vra vir my die regte vraag, dan wys ek vir jou die antwoord.* (The girl is swimming somewhere. Ask me the right question and I'll show you the answer). In 10(b), the wording in the responses was changed from *Wat het sy in geswem?* (What did she swim in?) to *Wat swem sy in?; Waarin swem sy?* (What is she swimming in?).

In item 11, the learner is presented with a picture of a girl who is angry. S/he is then presented with the stimulus *Die meisie is om een of ander rede kwaad. Vra*

vir my die regte vraag, dan wys ek vir jou die antwoord. (The girl is angry for some reason. Ask me the right question, and I'll show you the answer). In 11(a) an additional response was added with *Waarom is sy kwaad?* (Why is she angry?), and 11(b)'s additional response is *Waaroor is die meisie kwaad?* (What is she angry about?).

In item 12, as discussed above, the word order of the item was changed from *Die meisie maak op een of ander manier die speelding reg.* (The girl is fixing the toy in some or other way) to *Die meisie maak die speelding op een of ander manier reg.* As discussed above, in item 15(a), additional responses were added. These were *Waarnatoe hardloop hy?*, *Waarnatoe gaan hy?* (Where is he running to? Where is he going to?).

In item 16, the learner is presented with a picture of a boy who is crying and is asked *Vra vir my die regte vraag, dan wys ek vir jou die antwoord.* (Ask me the right question and I'll show you the answer). Additional responses were added into (a) and (b). These included; 16(a), *Waarom is hy hartseer?* (Why is he upset?) and 16(b) *Waaroor is hy kwaad?; Wat huil hy oor?* (Why is he angry?; Why is he crying?).

Lastly, in item 17, the learner was presented with a picture of a family eating different foods and the stimulus *Hier is vier mense en vier dinge om te eet. Elkeen eet een van die kosse. Vra vir my die regte vraag, dan wys ek vir jou die antwoord.* (Here are four people and four things to eat. Everyone is eating one of the foods. Ask me the right question and I'll show you the answer). The wording was changed from *Elkeen eet een van die kosse* (Everyone is eating one of the foods) to *Elkeen eet een van die goed* (Everyone is eating one of the things).

In the Semantics Domain there were changes made to items 3, 4, 11, 12, 13, 14, 16, 26-29, 41-45, and 46-50. In place of the word *borsel* (brush) is *kam* (comb) in

item 3, as discussed above. This change occurred as the aim of the item is to elicit a different verb to *borsel* which is presented in the target stimulus.

In item 4, the learner is presented with a picture of a mother plaiting her daughter's hair. The stimulus wording was changed from *Die ma pla haar nie...* (The mother isn't bothering her...) to *Die ma staan nie in haar pad nie...* (The mother isn't standing in her way...).

In items 11 and 12, the learner is presented with a picture of a girl sitting under a lifeguard chair on the beach. The wording was changed from *Sy kyk nie na die radio nie sy luister...* (She isn't looking at the radio, she's listening...) and *Sy skuif nie die stoel nie, sy sit...* (She doesn't move the chair, she sits...) to *Sy staan nie op die stoel nie, sy sit...* (She doesn't stand on the chair, she sits...) and *Sy speel nie met die bal nie, sy kyk...* (She doesn't play with the ball, she looks...) respectively, in order to focus more explicitly on the target prepositions.

In items 13 and 14, the learner was presented with a picture of a boy climbing a ladder to fetch a cat out of a tree. In 13(b) the changes included the wording of *kry/gaan haal die kat* (Going to get the cat) being omitted. In item 14(c), additional response *snags* (in the night) was included.

In item 16, the learner was presented with a picture of a girl eating her food while sitting next to the TV. In 16(a), the response *aan die kant van die TV* (next to the TV) was omitted.

In items 26-29, the learner was presented with a series of pictures, where a boy is pouring some juice, and the stimulus *Die seun skink die sap in* (The boy pours the juice). The picture stimulus and wording of the item was changed to *Die seun gooi die bal* (The boy throws the ball) and therefore the questions were

all changed respectively. These changes occurred as the translation of the original items did not elicit the appropriate required responses.

In items 41-45, novel items, the learner is presented with a series of pictures, where the man is sending the ball to the girl, and the stimulus *Die meisie san die appel na die hanswors*. (The girl is “sanning” the apple to the clown), with a series of questions following the stimulus. The wording was changed from *die vrou* (the lady) to *die meisie* (the girl) so as to better match the pictorial stimulus.

Lastly, in items 46-50, novel items, the learner was presented with a series of pictures, where the man is sending a ball to the girl on a certain apparatus, and the stimulus *Die meisie koeg die man om die bal te stuur*. (The girl is “koeging” the man to send the ball), with a series of questions following the stimulus. The wording of the statement was changed from *Die meisie soeg die man om die bal te stuur* (The girl soegs the man to send the ball) to *Die meisie koeg die man om die bal te stuur* (The girl koegs the man to send the ball) in order to avoid confusion with the real word *koek* (cake) and therefore the questions were all changed respectively.

3.5.2 Translation into Afrikaans

The DELV was translated into Afrikaans in order to provide SLPs with a dialect-neutral language assessment instrument. In the translation, it was vital to avoid item wording which may result in different performance by speakers of non-standard dialects. For example, when testing Afrikaans speaking learners, an appropriate response may include the use of a loanword from English, such as *bat* or *ball*. These responses should be regarded as acceptable when scoring the learner. These items which required particular attention in the translation are discussed below.

Often the direct translation of test items from English to Afrikaans does not cause the items to test their original aim. Van Dulm and Southwood (2008) showed how this area of the DELV aims to assess the comprehension of passive construction, however in the process of translation the items no longer tests this construction. The items are therefore adapted in such a way to assess the Afrikaans passive construction, contrasting *is* (is) with *het* (have).

In Syntax item 12, the learner is presented with the pictures and stimulus *The plant was dropping by the boy*. The direct translation of this stimulus would no longer lead to the assessment of passive construction and therefore the pictures and stimulus were completely changed. The learner is now presented with 3 pictures, of an open window, a boy falling against a window and a broken window, and has to select the picture matching the stimulus *Die man het deur die venster geslaan* (The man hit through the window) in order to make the item more appropriate.

In Syntax item 14, the learner is presented with the pictures and stimulus *The dog was being walked*. The direct translation of this stimulus would no longer lead to the assessment of passive construction and therefore the pictures and stimulus were completely changed. The learner is now presented with 3 pictures of a baby being fed, feeding herself and feeding her doll, has to select the picture matching the stimulus *Die baba is gevoer* (The baby is fed) in order to make the item more appropriate

In Syntax item 18, the learner is presented with the picture and stimulus *The horse got jumped*. The direct translation of this stimulus would no longer lead to the assessment of passive construction and therefore the pictures and stimulus were completely changed. The learner is now presented with 3 pictures; of a girl bathing, about to get into the bath and finished bathing, and has to match the picture to the stimulus. *Die meise is gebad* (The girl is bathed), in order to make it more appropriate.

The construction tested by Syntax Item 19 *The ball was rolling by the boy*, cannot be assessed by the exact Afrikaans translation *Die bal het verby die seuntjie gerol*. As an alternative, the structure was changed from *het gerol* to *is gerol*. This is the Afrikaans equivalent of the difference between *was rolling* and *was rolled*. Here the learner is presented with 3 pictures of; a ball already rolled, a ball standing still and a ball being rolled.

In Pragmatics item 11, as discussed above, the wording was changed from *mad* to *kwaad* (angry), because in South African English *mad* more generally means “crazy”.

In Semantics item 9 and 10, in the DELV-AP, the wording and pictures were completely changed in order to assess specific prepositional phrases in Afrikaans, which would not be assessed by simply translating the items. In Item 9, the item was changed from *She's not taking off her coat, she's... (putting on her coat)* to *Die juffrou skryf nie op die bord nie, sy...vee dit af* (The teacher isn't writing on the board, she... is cleaning it). In item 10, the item was changed from *She's not undressing, she's... (dressing)* to *Die juffrou sit nie, sy...staan* (The teacher isn't sitting, she...is standing). Had the item simply been directly translated, it would require a non-prepositional response such as *aantrek* (dress) and *uittrek* (undress).

In the Phonology domain, there were changes made to both the pictures and wording in all items, in order to test the same range and type of clusters tested in the original DELV. The following words are used in this domain in the DELV-AP, and remained the same in the DELV-A: (1) *kasteel* (castle), (2) *krap* (crab), (3) *smal* (narrow), (4) *skree* (scream), (5) *stoof* (stove), (6) *vrot* (rotten), (7) *pragtig* (pretty), (8) *trui* (jersey), (9) *aantrek* (dress), (10) *afrol* (roll down), (11) *gestry* (fought), (12) *geskil* (peeled), (13) *vlakke* (plain), (14) *wrak* (wreck), (15) *skerp* (sharp), (16) *groen* (green), (17) *sebra* (zebra), (18) *skop* (kick),

(19) *brug* (bridge), (20) *speel* (play), (21) *splinter* (splinter), (22) *glas* (glass), (23) *skraap* (scrape), (24) *gras* (grass), and (25) *plant* (plant).

The above-mentioned overview of the changes and adaptations to the DELV provides a descriptive discussion of how the DELV-A was developed. The DELV-AP and DELV-A were used to assess the Western Cape and Eastern Cape learners respectively, as discussed below in Chapter 4.

CHAPTER 4

METHODOLOGY

This chapter sets out the methodology followed in the present study, which aims to compare typically developing speakers from rural areas in the Western Cape to atypically developing speakers in the Eastern Cape in terms of their performance on the DELV. Specifically, the study set out to compare (i) the performance of the WC learners on the DELV-AP to that of the EC learners on the DELV-A, and (ii) the performance of the atypically developing EC learners on the DELV to that on the ARW. The ARW is a formal Afrikaans language test used to assess receptive (semantic) skills. The ARW was developed for and standardised on a South African population of White Afrikaans speakers. These learners came from a specific geographical region and therefore the ARW may be biased toward this population (Buitendag 1994).

The data collection procedures and the participants are described in section 4.1. Section 4.2 gives an exposition of the data analysis procedures.

4.1 Data Collection Procedures

The present study was informed by data from two sources, namely a Western Cape School (WC) in Stellenbosch, and an Eastern Cape School (EC) in Graaff-Reinet.

4.1.1 Data Collection Procedures: Western Cape School

The first data set was collected in 2008 and was used here as secondary data. Forty-eight speakers of Kaapse Afrikaans (cf. Introduction) between the ages of six and nine years from WC were tested by final year SLP students, from the University of Stellenbosch, on the DELV-AP. Participants were identified

by their class teachers and parents as having typically developing language skills according to community norms. However, Klop and Tuomi (2007) have studied learners in this same community, and indicated that learners from lower socio-economic groups generally perform poorly on language tests such as the ARW, possibly as a result of their difference in language skills. Research has indicated that this is a general trend, that the socioeconomic status of the family in which the child is raised may affect the child's language development (cf. Hoff 2003; Walker, Greenwood, Hart & Carta 1994). Although this is the case for tests such as the ARW, the DELV was developed in order to eliminate this bias toward learners who may show a difference in their language skills. The 2008 study thus aimed at evaluating the appropriateness and efficacy of the DELV-AP in identifying typically developing learners from various socio-economic backgrounds as typically developing (cf. Van Dulm & Southwood 2008). Permission to collect data at WC was requested from the Western Cape Department of Education (WCDOE) (cf. Appendix A), as well as from the school headmaster, and permission was granted prior to commencing testing (cf. Appendix B). Information documents, consent forms and case history questionnaires were sent home with each learner for their parents/caregivers to complete. Participants for the study were selected on the basis of the case history information.

The selection criteria for the participants from the Western Cape School were as follows: Afrikaans speaking; from a monolingual household; no history of speech-language or hearing problems; no previous referral to SLP, occupational therapist, physiotherapist, or psychologist; no signs of neurological impairments, such as brain injury, cerebral palsy, Attention Deficit Disorder; and normal physical development. These criteria were selected to ensure that each learner was developing normally according to their parents. The class teachers also identified each learner as typically-

developing in terms of language, and no participant was receiving any special support within the school setting.

4.1.2 Data Collection Procedures: Eastern Cape School

The second set of data was collected in 2009, as primary data by the author. Permission to collect data in Graaff-Reinet was requested (cf. Appendix C), and granted by Mr. E.M. Kani, District Director of the Eastern Cape Education Department (cf. Appendix D). Thereafter, permission was received from the headmaster, Mr. Everson of the Eastern Cape School, to conduct assessments at their school (cf. Appendix E). Twenty speakers of non-standard Afrikaans, between the ages of six and nine years from EC were tested by the author, an SLP in community service in the Graaff-Reinet area, on the DELV-A and the ARW. A number of potential participants were identified by their teachers as requiring intervention by an SLP. A screening protocol was conducted on each potential participant in order to determine whether they did indeed require intervention. The screening protocol included assessment of the learner's basic knowledge of vocabulary and prepositions (receptive and expressive), his/her book knowledge and alphabet knowledge, and his/her story-telling ability. The screening protocol appears in Appendix F.⁴ On the basis of the results of the screening protocol, 26 learners were identified as requiring language therapy⁵. The parent(s) of every potential participant was sent a letter explaining the nature of the study, the confidentiality of the information to be gathered, and that at any time they or their learner may opt out of the study without providing a reason (cf. Appendix G). Every parent was required to complete a form granting informed consent (cf. Appendix H).

⁴ It is important to note, that the screener which was used to identify the atypically language developing learners in the Eastern Cape was necessary in order to supplement the teachers and/or parents suspicions of the learners' atypical language development. In retrospect, a better screening tool should have been used in the identification of therapy candidates. The majority of the skills tested in the screening protocol are appropriate for preschool aged children rather than school going children and are thus mostly inappropriate. Yet the learners all had difficulties with these skills. This could lead one to question their cognitive and/or academic skills.

⁵Following assessment with the DELV and ARW, all of these learners received group language therapy for a period of 3 months.

Each parent was then provided with a case history questionnaire which they were required to complete (cf. Appendix I). The case history form included information about the learners' development, language use, specialists consulted, and parents' education level and work information. From the 26 case history forms returned and appropriately completed, 20 learners were randomly selected to participate into the study. First, the ARW was carried out on each learner, followed by the DELV-A assessment. The DELV-A was carried out on each of the 20 participants individually, and took a time period of between 25 to 45 minutes to be administered to each learner. Every assessment session was audio recorded, with the knowledge and consent of the learner as well as the parent, for later transcription and scoring.

4.1.3 Complete Sample Group

For each of the 20 EC learners, an age-matched peer was identified in the WC sample of 2008, yielding a total of 40 participants for the present study. The ages of these 40 participants ranged from 6 to 9 years: four 6-year-olds, eight 7-year-olds, sixteen 8-year-olds and twelve 9-year-olds. 23 participants were male and 17 were female. The learners from the WC group were all of Coloured ethnicity, whereas the learners from the EC group came from both Black and Coloured ethnic groups. All participants (also the Black learners) were first language speakers of Afrikaans. All learners lived in an area with lower socioeconomic status. Only 3 of the WC parents and 2 of the EC parents have passed Grade 12, and none have any post school education. The WC parents are mostly employed as domestic workers, farm workers or factory workers, whereas the EC parents work mostly as domestic workers or gardeners or are pensioners.

4.2 Data Analysis

Each participant's audio recording was played back and the responses transcribed and entered onto the DELV score sheet. The score sheet analysis for each participant was then completed, converting the raw scores to scaled scores, percentiles and age equivalents (cf. an example in Appendix J). The ARW responses were recorded on the score sheet immediately during the assessment session and later the raw scores were converted to standard scores and age equivalents (cf. an example in Appendix K).

The DELV results were then examined individually and compared across the 20 EC participants in order to ascertain (i) whether these atypically developing learners indeed appeared as such according to the DELV, and (ii) whether their performance on the semantics domain on the DELV was comparable to that on the ARW in terms of age equivalence. Finally, the EC results on the DELV were compared to those of the 20 typically developing WC learners. Statistical analyses were undertaken in order to determine whether there was a significant difference between the two groups in terms of their performance on the DELV-A. The Mann-Whitney scale was used for this purpose. There are two null hypotheses in this study. The first null hypothesis states that there will be a significant difference between the scores of the typically developing WC participants and those of the language impaired EC participants on the DELV. The second null hypothesis states that there will be a correlation between the EC participants' performance on the DELV-A to that of the ARW. The results of the testing, and of the statistical analyses, are discussed in chapter 5.

CHAPTER 5

RESULTS AND DISCUSSION

The primary aim of the present study was to determine whether the DELV-A is effective at identifying language delayed learners in the population of rural speakers of non-standard Afrikaans by means of comparing the performance of the typically developing (WC) learners to that of the atypically developing (EC) learners on the test. A second aim was to compare the performance of the atypically developing EC learners on the Semantics Domain of the DELV to that on the ARW. This was done through observing the learner's responses on different items and subsections so as to ascertain (i) whether the DELV does indeed reliably distinguish between typically and atypically developing learners, and (ii) whether the DELV indicates atypical development in the area of semantics in the same way as does the ARW.

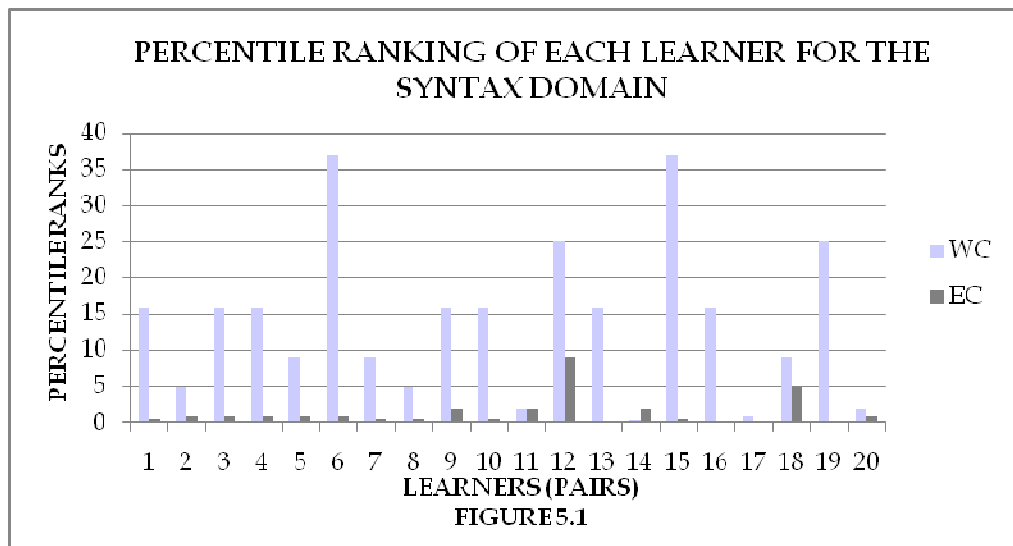
In the normative data of the original DELV, percentile ranks are used to indicate the position in which each learner stands in relation to other learners. The mean standard score of 100 falls on the 50th percentile ranking (De Villiers et al. 2003:61). Percentile ranks provide the most useful information in the present context, and so the analysis below focuses on these. The analysis and figures in sections 5.1 to 5.5 compare the WC learners to the EC learners in terms of percentile rankings. When comparing the Semantics Domain of the DELV to the ARW amongst the EC learners in section 5.6, the age equivalent scores are used, as this was the only relevant common score between the two instruments.

5.1 Syntax Domain

The Syntax Domain consists of three subsections, namely Wh-questions, Passives and Articles (cf. section 3.4.1). The raw scores obtained by each participant for each subsection are provided in Appendix L.

5.1.1 Results for Syntax Domain: Percentile Ranks

As shown with the percentile ranks in Figure 5.1 below, for the Syntax domain, all 40 learners achieved below the 50th percentile. In the original DELV standardization population, an average score would be revealed by a 50th percentile ranking, while above average performance would be indicated by a percentile ranking above the 50th percentile. For the original DELV standardization population, a score below the 50th percentile indicates below average performance for typically developing learners of the same age, but does not necessarily indicate a delay or disorder in syntax skills. Although this may be the case for learners from the same population, the learners tested in the present study were from a South African population and therefore their scores cannot be analyzed according to the DELV normative data. The percentile rankings of the WC and EC learners are simply compared for purposes of the present study⁶.



The aim of the present analysis is to determine whether South African learners who function normally linguistically within their own context (i.e. WC learners) perform better on the DELV than learners who do not

⁶ Standardization of the DELV-SAE and the DELV-A is currently underway by the Stellenbosch University researchers.

function normally linguistically within their own context (i.e. EC learners). Learners' raw scores were compared across the two sample groups on each subsection, and the results are presented in Table 5.1 below. These results indicate, firstly, that the WC learners outperformed the EC learners, and secondly, that learners had difficulties particularly in the Article items subsection and achieved the best scores in the Wh-Question items.

Table 5.1 ANALYSIS OF RAW SCORES FOR THE SYNTAX DOMAIN			
	Learners below 50% raw score		
	WC	EC	Total
Wh-Question Items	0	8	8
Passive Items	1	4	5
Article Items	2	14	16
Domain Total	1	12	13

When comparing same age-peers between the WC and EC participants, the results were as follows: (i) Two learners achieved equal scores (i.e. one EC learner equaled the performance of his/her WC peer), (ii) 18 learners from WC achieved a score above that of their EC same-age peer, and (iii) 1 learner from EC achieved a score above his/her WC peer.

5.1.2 Significance of the Results for the Syntax Domain

There was a statistically significant difference between the scores of the WC participants and those of the EC participants on the Syntax Domain ($p < 0.01$), as presented in Figure 5.2 below. The null hypothesis, which states that there will be a significant difference between the scores of the two groups of participants, is thus borne out by the data obtained for the Syntax Domain. The DELV-A is therefore shown to accurately distinguish between typically developing and language impaired learners in the population tested here, on the Syntax Domain.

STATISTICAL ANALYSIS OF WC AND EC ON THE SYNTAX DOMAIN

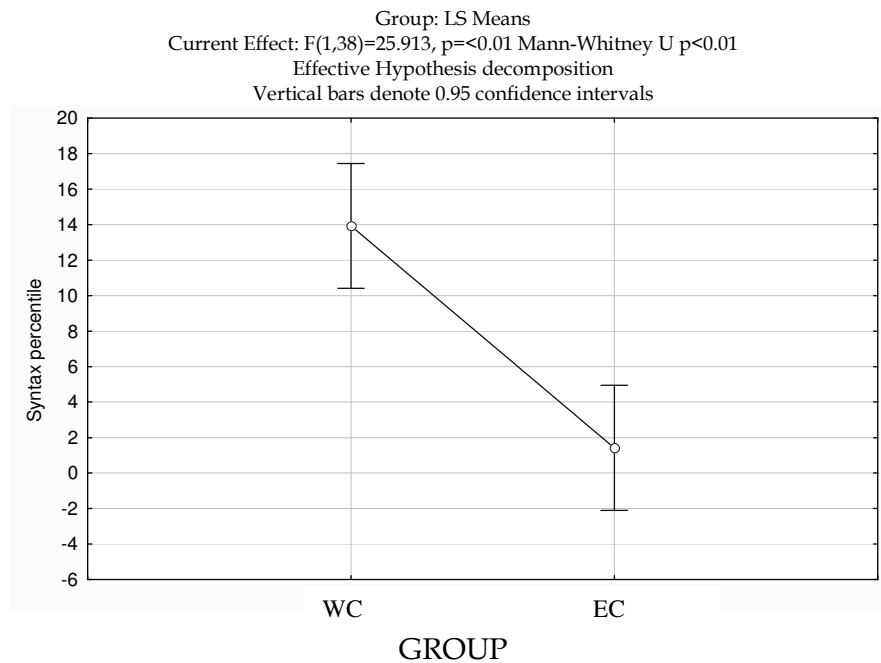


FIGURE 5.2

The below-average performance of the typically developing (WC) learners may possibly be due to their socioeconomic status (cf. the discussion of the effect of low SES on test performance in section 3.3, and cf. Southwood, forthcoming). However, in terms of the aim of the present study, note that their scores are significantly higher than those of the atypically developing (EC) population, indicating that the syntax domain of the DELV-A reliably shows whether a learner is typically or atypically developing, irrespective of their SES.

5.1.3 Error Analysis of responses given in the Syntax Domain

In the syntax domain, the most common errors for EC learners occurred in: (i) Wh-Questions, items 3 and 9; (ii) Passive construction of sentences, 13, 18 and 19, and (iii) Article items, 21-26. While a number of test-internal factors are discussed below as possible reasons for the errors on these items, it must

be noted that errors such as these are to be expected from these learners in terms of their language deficit, as well as from the younger typically-developing WC learners. Only a typically-developing 10-year-old would be expected to give an error-free performance.

For Wh-Question 3, the learner is shown a picture of a mother watching a cooking program on the TV and baking a cake. The SLP reads a statement and asks a question: *Hierdie ma het nie geweet hoe om 'n koek te bak nie. Sy het 'n TV-program oor kosmaak gekyk en geleer hoe om 'n lekker koek met poedingsmengsel te maak. Hoe het die ma geleer wat om te bak?* (This mom did not know how to bake a cake. She watched a TV program about making a cake and learnt how to make a nice cake with pudding mix. How did the mom learn what to bake?). The most common error for this item was the response *'n koek* (a cake). Such errors may in some cases be attributed to poor listening skills associated with the child attempting to answer the question prior to the examiner finishing the question. Such a problem should be avoided by emphasizing the instructions prior to beginning this task (i.e. if children are explicitly instructed to first listen to the whole utterance made by the examiner before selecting a picture).

In Wh-Question 9, the stimulus is *Hierdie seuntjie eet verskillende goed op verskillende maniere. Hy eet roomys met 'n vurk en duiwe met sy vingers. Hoe eet die seun wat?* (This boy eats different things in different ways. He eats ice-cream with a fork and grapes with his fingers. How does the boy eat what?). The learner is presented with a picture of a boy eating ice-cream with a fork and grapes with his fingers. The EC learners had difficulties pairing both groups to each other appropriately, most likely directly as a result of their language difficulties.

The most common errors for the EC learners in the Passive Construction items occurred in items 13, 18 and 19. In these items, the learner is presented with

three pictures per item, with the action occurring in past, present and future, and they are then required to point to the picture to which the statement made by the examiner refers. In item 13, the statement is *Die seuntjie was besig om geslaan te word* (The boy was being hit). In item 18, the statement is *Die meisie is gebad* (The girl is bathing). In item 19, the statement is *Die bal is deur die hark gerol* (The ball is rolled by the rake). These errors may once again be ascribed to the learner's language delay.

The most common errors in the Article items occurred in items 21-26. In these items, the learner is presented with a statement which requires a response containing a noun and an article, either *die* (the) or *'n* (a). There are no picture stimuli associated with these tasks. For example, *Christal wou 'n piesang eet, maar sy moes eers iets daarvan afhaal. Wat het sy afgehaal?* (Christal wanted to eat a banana, but she first had to take something off it. What did she take off it?). The majority of the learners responded with just a noun, not accompanied by an article, which is most likely a reflection of their language delay.

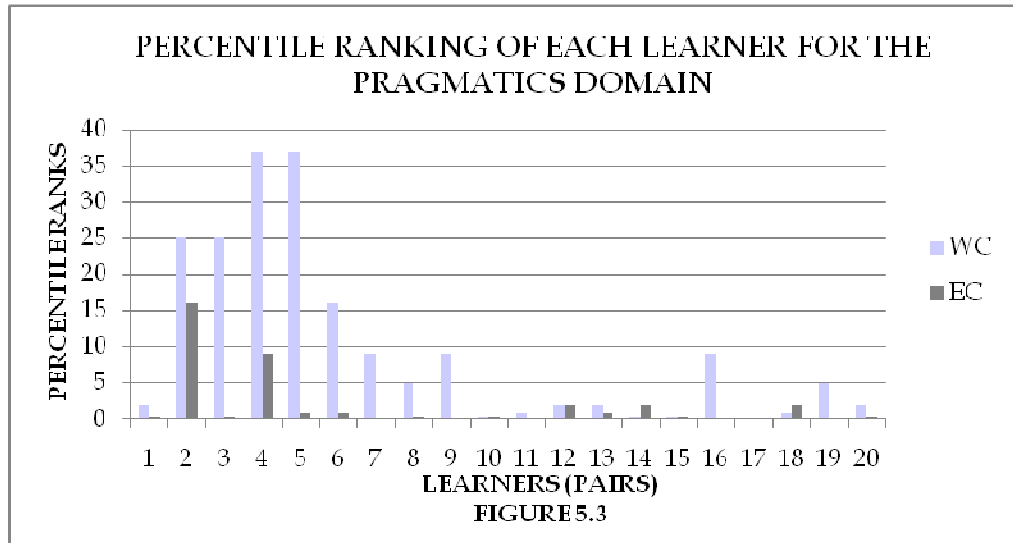
As discussed above in section 5.1.1, learner EC14 (atypically developing) achieved a higher score in the Syntax Domain than did learner WC 14 (typically developing), 8 years 10 months and 8 years 11 months respectively. The EC learner achieved higher scores in both the Wh-Questions and Articles subsections. The WC learner achieved lower scores in these subsections when compared to his/her age-equivalent learners. This may indicate that this learner has specific difficulties in these areas of language, despite presenting with language skills which appear generally age-appropriate.

5.2 Pragmatics Domain

The Pragmatics Domain comprises three subsections, namely Communicative Role Taking, Short Narratives and Question Asking Items (cf. section 3.4.2). The raw scores obtained on each subsection are provided in Appendix M.

5.2.1 Results for the Pragmatics Domain: Percentile Ranks

As shown with the percentile ranks in Figure 5.3 below, for the results of the Pragmatics domain, all 40 learners achieved below the 50th percentile.



Recall that the analysis in the present study aimed to determine whether the typically developing WC learners performed significantly better than the atypically developing EC learners. These learners were compared across the two sample groups on each subsection, and the results of the raw scores are presented in Table 5.2 below.

Learners of the same age were compared across the two sample groups, and the results were as follows: (i) Four learners achieved equal scores (i.e. two learners from EC performed the same as their WC peers), (ii) 14 learners from WC achieved a score above their EC peers, and (iii) two learners from EC achieved a score above their WC peers.

Table 5.2 ANALYSIS OF RAW SCORES FOR THE PRAGMATICS DOMAIN			
	Learners below 50%		
	WC	EC	Total
Communicative Role Taking Items	2	6	8
Short Narratives Items	11	16	27
Question Asking Items	2	8	10
Domain Total	4	13	17

5.2.2 Significance of the Results for the Pragmatics Domain

There was a statistically significant difference between the scores of the WC participants and those of the EC participants on the Pragmatics Domain of the DELV-A ($p < 0.01$) as presented in figure 5.4. The null hypothesis, which states that there will be a significant difference between the scores of the two groups of participants, is thus borne out by the data obtained for the Pragmatics domain.

The below-average performance of the typically developing (WC) learners may once again possibly be due to their socioeconomic status. However, note that their scores are significantly higher than those of the atypically developing (EC) population, indicating that this domain of the DELV-A reliably shows whether a learner is typically or atypically developing irrespective of their SES.

STATISTICAL ANALYSIS OF WC AND EC ON THE PRAGMATICS DOMAIN

Group: LS Means
Current Effect: $F(1,38)=7.0902$, $p=0.01$ Mann-Whitney U $p<0.01$
Effective Hypothesis decomposition
Vertical bars denote 0.95 confidence intervals

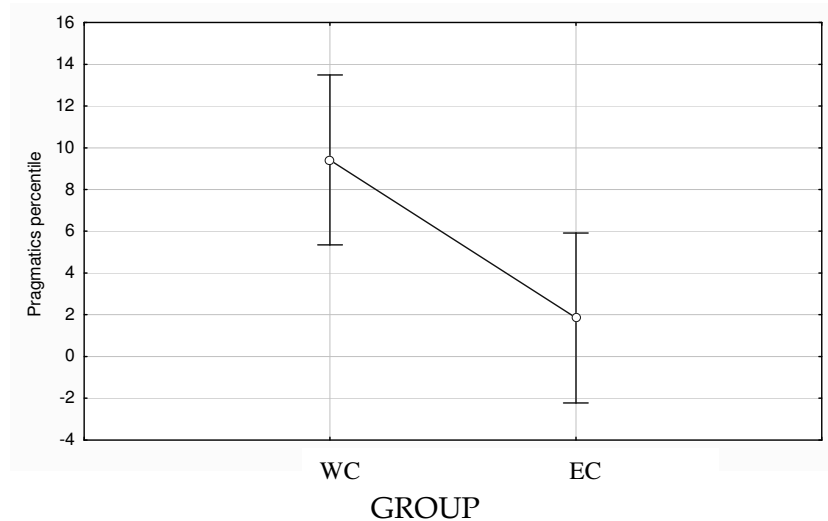


FIGURE 5.4

5.2.3 Error Analysis of responses given in the Pragmatics Domain

In this domain, the most common errors for all learners occurred in: (i) Communicative Role Taking, item 2; (ii) Short Narratives, item 7 and (iii) Question Asking, items 12 and 17.

In Communicative Role Taking, the learner is required to respond to a question by the SLP in response to a picture of an occurring event. In item 2, the learner is presented with a picture of a boy looking out of the window at his friend playing cricket, and asked *Wat vra die seuntjie vir sy pa?* (What is the boy asking his father?). Most of the EC learners' incorrect responses included a response in relation to the tap in the pictured kitchen (at which it is conceivable that the boy is looking) or an inappropriate response. These errors are taken to reflect both the stage of language development of the

learners, as well as their age in terms of their ability to pay attention to the details of the picture.

In the short narratives subsection, both learner groups showed difficulties with item 7, which is the item that presents with the most common errors. In this subsection, the learner is required to tell the SLP a story in relation to a series of pictures and is then asked 2 questions. For item 7, the SLP asks the learner; *Vertel vir my wat het in hierdie prentjie gebeur* (Tell me what is happening in this picture). The expected response is anything related to the learner dreaming or wondering about the train in the story. Most of the learners had no response to this question or they provided a response in relation to the boy playing with the train. These inappropriate responses indicate an inability to speak about the mental state of a character i.e. What is in the pictured boy's mind?, and are once again a reflection of the learners' stage of development. The ability to speak of another's possible thoughts/feelings is a late-developing skill (cf. Astington & Baird 2005) whose study of deaf learners revealed their vocabulary skills to be a predictor of their difficulties in recognizing various cognitive states).

The most common errors occurred in the Question asking subsection for items 12 and 17. In this subsection, the learner was presented with a picture with parts of it missing and was required to ask the appropriate question before the examiner revealed the missing parts.

In the case of item 12, the expected response to a picture showing a girl fixing a toy car with something is *Hoe maak sy die speeding reg?* (How is she fixing the toy?). Most of the learners responded with a statement instead of a question. This may be as a direct result of these skills only being possessed by the older learners' and therefore the younger learners have difficulties in asking appropriate questions.

In the case of item 17, the expected response to a picture showing four people, each eating something different, is an appropriate double Wh-question, namely *Wie eet wat?* (Who eats what?). All the learners seemed confused with this picture and hesitated before they answered it, using mainly single Wh-questions. While De Villiers (2004) indicates that African American learners are able to produce double Wh-questions approximately by the age of 8 years, errors on this item are still within the norm until approximately 9 years of age according to the DELV's age equivalence tables.

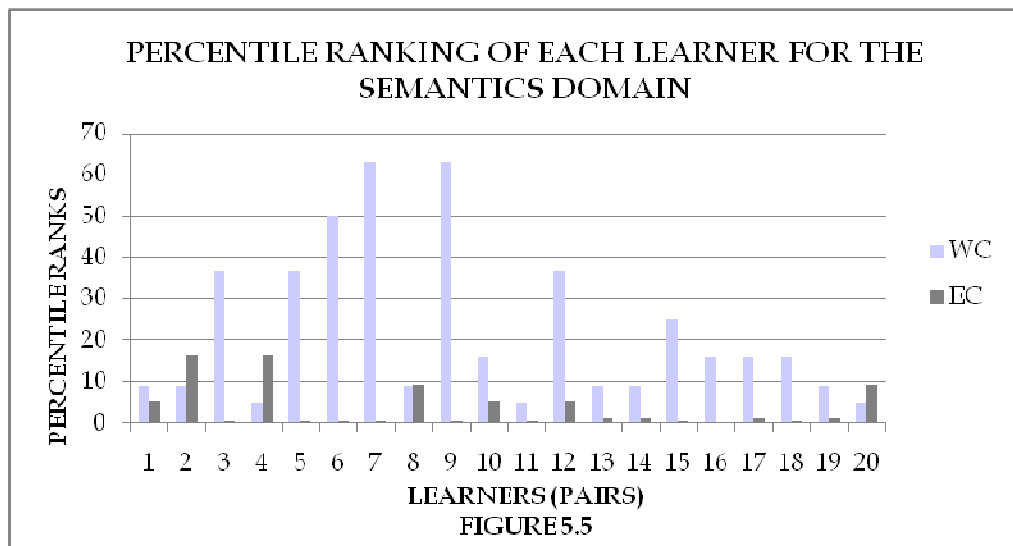
As mentioned above in section 5.2.1, learners EC14 and EC18 (atypically developing) achieved higher scores in the Pragmatics Domain than learners WC14 and WC18 (typically developing), 8 years 10 months, 9 years 3 months and 8 years 11 months, 9 years 6 months respectively. In both learner pairs, the EC learners achieved higher scores in the short narrative subsection. These two WC learners achieved appropriate scores in this subsection when compared to their age-equivalent peers, whereas the two EC learners achieved higher scores than their age-equivalent peers. This may indicate that the EC learners had superior skills in this particular area, despite presenting with an overall language delay.

5.3 Semantics Domain

The Semantics Domain consists of five subsections, namely Verb Contrast Items, Preposition Contrast Items, Quantifier Items, Fast Mapping of Real Verb Items and Fast Mapping of Novel verb items (cf. section 3.4.3). The raw scores obtained by each participant for each subsection are provided in Appendix N.

5.3.1 Results for the Semantics Domain: Percentile Ranks

As shown with the Percentile Ranks in Figure 5.5 below, for the results of the Semantics Domain, three learners achieved on or above the 50th percentile and 37 learners achieved below the 50th percentile.



The analysis of the present study is to determine whether the typically developing WC learners perform appropriately when compared to the atypically developing EC learners. The two sample groups were compared on each subsection, and the results are presented in Table 5.3 below.

	Learners below 50% for raw scores		
	WC	EC	Total
Verb Contrast Items	2	11	13
Preposition Contrast	0	7	7
Quantifier Items	2	6	8
Fast Mapping Real Verb	4	10	14
Fast Mapping Novel Verb	9	9	18
Domain Total	0	13	13

Learners of the same age were compared across the two sample groups, the results were as follows: (i) One learner pair achieved equal scores, (ii) 16 learners from WC achieved a score above their EC peer, and (iii) three learners from EC achieved a score above their WC peer. In order to address this aspect of the research question, we must look at whether there are any significant differences between the scores achieved by the two sample groups.

5.3.2 Significance of the Results for the Semantics Domain

There was a statistically significant difference between the scores of the WC participants and those of the EC participants on the Semantics Domain of the DELV-A ($p < 0.01$) as presented in figure 5.6 below. The null hypothesis, which states that there will be a significant difference between the scores of the two groups of participants, is thus borne out by the data obtained for the Semantics Domain.

These results indicate that there is a significant difference between the WC and EC populations in terms of their performance on the Semantics Domain of the DELV. Note that the typically developing learners (WC) have scores below average, possibly due to their socioeconomic status. However, their scores are higher than the atypically developing (EC) population, indicating that this domain of the DELV-A is able to show whether a learner is typically or atypically developing despite their SES.

STATISTICAL ANALYSIS OF WC AND EC ON THE SEMANTICS DOMAIN

Group: LS Means
Current Effect: $F(1,38)=17.962$, $p<0.01$ Mann-Whitney U $p<0.01$
Effective Hypothesis decomposition
Vertical bars denote 0.95 confidence intervals

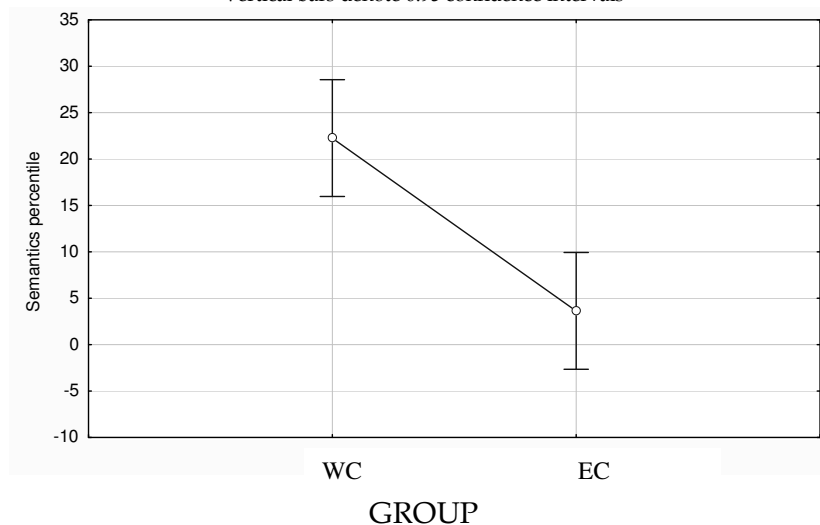


FIGURE 5.6

5.3.3 Error Analysis of the responses given in the Semantics Domain

In this domain, the most common errors occurred in: (i) Verb Contrast, items 4, 5 and 8; (ii) Quantifiers, items 18 and 24; (iii) Fast Mapping Real Verbs, items 27 and 33; and (iv) Fast Mapping Novel Verb, items 37, 39, 44, 45, 46, 49 and 50.

In the Verb Contrast Item Subsection, the most common errors occurred in items 4, 5 and 8. In items 4, 5 and 8, the learner was required to complete a statement associated with a picture.

In item 4, the learner is presented with a picture of a mother standing behind her daughter, plaiting her hair, and the statement *Die ma staan nie in haar pad nie, sy...* (The mother isn't standing in her way, she's...). Most of the learners responded with either *sit* or other inappropriate responses, when the response

should be either *bly uit haar pad* (stay out of her way) or *staan agter haar* (stands behind her).

In item 5, the picture was of a baby who had some bread in his hands, and the statement was *Die baba sny nie die brood nie, hy...* (The baby isn't cutting the bread, he's...). With this particular item, most of the learners provided answers such as *eet* (eat) or *eet dit* (eat it), which is incorrect as the answer should be *breek dit* (breaks it) or *skeur dit* (tears it).

In item 8, the picture was of two children fighting over a toy train, and the statement was *Hulle deel nie die trein nie, hulle...* (They aren't sharing the train, they're...). Most of the incorrect responses included *baklei* (fight) or *breek dit* (break it), where an acceptable response would be *baklei daaroor* (fight over it) or *is selfsugtig* (are selfish). These responses linguistically only required a contrastive verb, but also required a somewhat higher level of thinking. These errors therefore most likely reflect the age and stage of language and cognitive development of the learners.

Quantifier items 18 and 24 proved to have the most common errors. In item 18, the learner is presented with a picture of dogs eating bones and a rabbit eating a carrot. The learner is asked *Eet elke hond 'n been?* (Is every dog eating a bone?), and s/he is required to respond with *yes* or *no*.

In item 24, the learner is presented with two pictures slightly different to each other. The first, is a picture of a man playing a piano with 3 babies watching him and the second, is a picture of 3 babies playing a piano and the man watching them. The learner is required to choose the correct picture in response to the statement *Die man kyk vir elke baba. Hy speel klavier.* (The man is looking at every baby. He plays piano.) The errors on these items once again appear to reflect the learners' age and stage of language development.

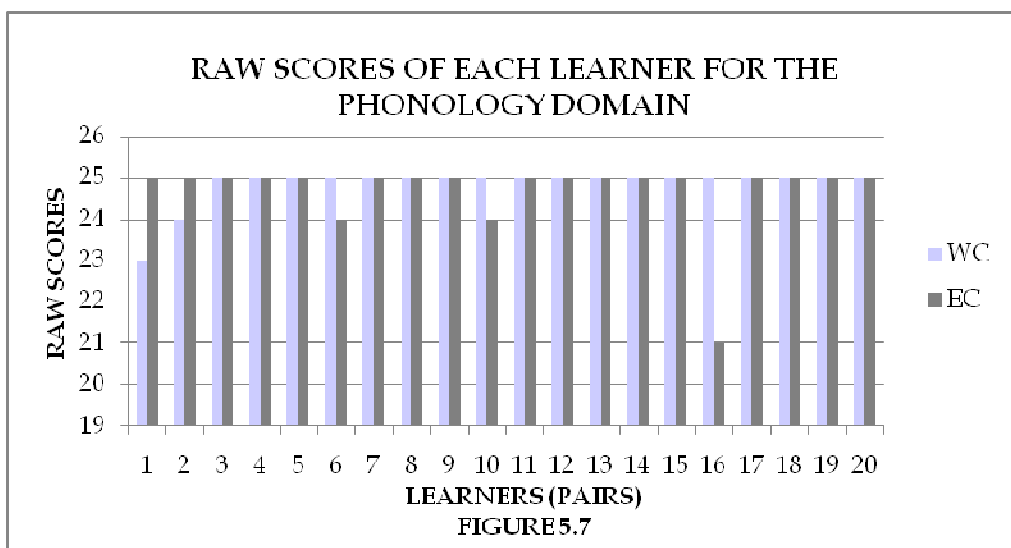
In the Fast mapping subsections, the learner is provided with three action pictures and four pictures of objects appearing in the action pictures, as well as some information about the picture. The learner is expected to point to one of the object pictures in order to answer the question. In item 27, the pictures are of a boy throwing a ball. The statement is *Die seun gooi die bal* (The boy is throwing the ball) and the question is *Watter een is gegooi?* (Which one was thrown?). In this case, most of the learners were unable to answer this question correctly, and instead of answering *bal* (ball), the majority answered *baba* (baby), referring to the baby sitting in the corner of the picture. In item 33, the pictures are of a policeman asking a woman to stop her car. The statement was *Die polisieman vra die vrou om die kar te stop* (The policeman asked the women to stop the car) and the question is *Watter een het die polisieman vir die vrou gevra om te stop?* (Which one did the policeman ask the woman to stop?). The learners mostly responded by pointing the women. In items 37, 39, 44, 45, 46, 49 and 50, they were required to do the same, except that the words were novel items instead of real verbs. The learners had difficulties with this section and many of the learners appeared to just guess the answers. The fast mapping strategy enables learners to assume a relationship between a word and its referent, even after one experience (Pinker 1982 in Owens 2001). Verbs are largely mapped based on the morphological ending of the word (Behrend, Harris & Cartwright 1995 in Owens 2001). To generalize this behaviour the learner must be able to detach the verb from the agent and generalize it to other actions (Forbes & Poulin-Du Bois 1997 in Owens 2001). In this case, the learners seem to have difficulties generalizing the agent to another action. These skills develop at a later age and the difficulties experienced by the learners in the present study are considered age appropriate.

As mentioned above in section 5.3.1, learners EC 2, EC 4 and EC 20 (atypically developing) achieved higher scores in the Semantics Domain than learners WC 2, WC 4 and WC 20 (typically developing). These learners were 6 years

8 months, 7 years 5 months, 9 years 7 months and 6 years 8 months, 7 years 7 months, 9 years 7 months, respectively. EC 2 achieved higher scores in the prepositions, quantifier and fast mapping subsections. EC 4 achieved higher scores in the quantifier 1 and fast mapping of novel verbs subsections. EC 20 achieved higher scores in quantifier 2 and fast mapping of novel verbs subsections. This may indicate that the EC learners possess superior skills in these areas when compared to their peers, despite presenting with an overall language delay.

5.4 Phonology Domain

As shown in Figure 5.7 below, for the Phonology domain, five learners achieved a score of less than 100%. The raw scores obtained by the learners for the phonology domain are provided in Appendix O. Learners of the same age were compared across the two sample groups, the results were as follows: (i) 15 learner pairs achieved equal scores, (ii) three learners from WC achieved a score above their EC peers, and (iii) two learners from EC achieved a score above their WC peers. These results have no significant impact on the present study, as the focus is on language skills rather than phonological skills.

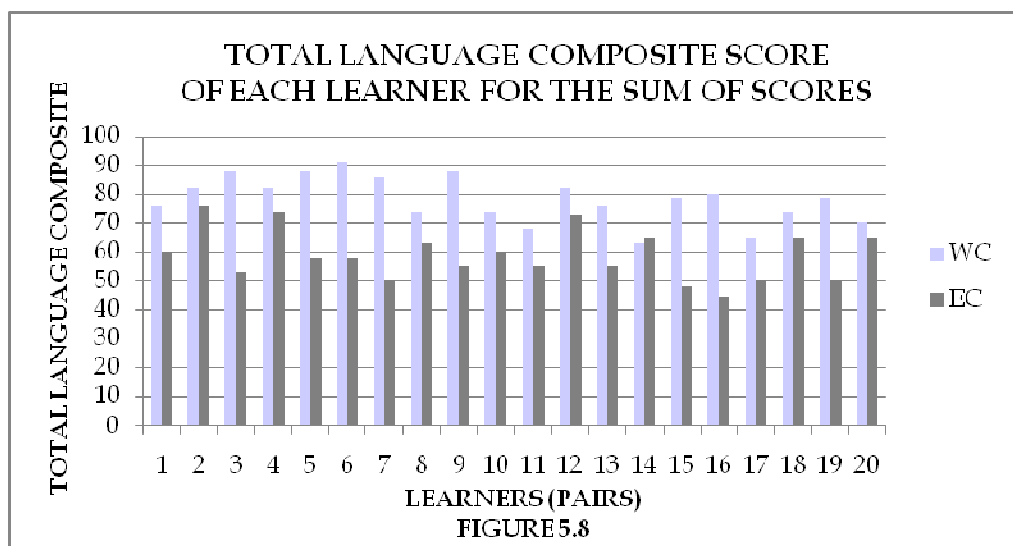


5.5 Overall Performance

The Total Language Composite score is a measure of language ability based on performance in the syntax, pragmatics, and semantics domains that determines a child's overall language performance in relation to his or her peers and is used to make decisions about the presence or absence of a language disorder (Seymour et.al 2005:51). The raw scores obtained by the present learners for each domain are provided in Appendix P.

5.5.1 Results for the Overall performance: Composite language score

"The severity of a language disorder is determined by the deviation of a child's scores from the mean of 100" (De Villiers et al. 2003). This score is on a normalized standard score scale which has a mean of 100 and ranges from 40 to 160, with a standard deviation of 15. The results in figure 5.8 below show that five learners fell within 1 standard deviation of the mean, thus obtaining a total language score of between 85 and 115, none of which were from EC. This indicates that five of the WC learners showed skills at or above the norm for learners of the same age group in the American test population, and the remaining 35 learners in the present study showed skills below this USA average.



The aim of the present study is to determine whether the typically developing WC perform accordingly when compared to the atypically developing EC, across all domains. Table 5.4 shows the difference between the two groups in terms of how many learners were 1, 2 and 3 standard deviations below the mean.

Table 5.4 ANALYSIS OF THE SUM OF SCALED SCORES			
	WC	EC	Total
1 Standard Deviation below the mean	12	3	15
2 Standard Deviations below the mean	3	11	14
3 Standard Deviations below the mean	0	6	6

The results in table 5.4 show that the majority of the WC learners were only 1 standard deviation below the mean, while the majority of the EC learners were 2 or 3 standard deviations below the norm. The statistical significance of these results is discussed below.

5.5.2 Significance of the Results for the Overall Performance

There was a statistically significant difference between the scores of the WC participants and those of the EC participants in terms of the Sum of Scaled Scores on the DELV-A ($p < 0.01$) as presented in figure 5.9 below. The null hypothesis, which states that there will be a significant difference between the scores of the two groups of participants, is thus borne out by the data obtained for the Sum of Scaled Scores.

STATISTICAL ANALYSIS OF WC AND EC FOR THE SUM OF SCALED SCORES

Group: LS Means
Current Effect: $F(1,38)=24.498$, $p<0.01$ Mann-Whitney U $p<0.01$
Effective Hypothesis decomposition
Vertical bars denote 0.95 confidence intervals

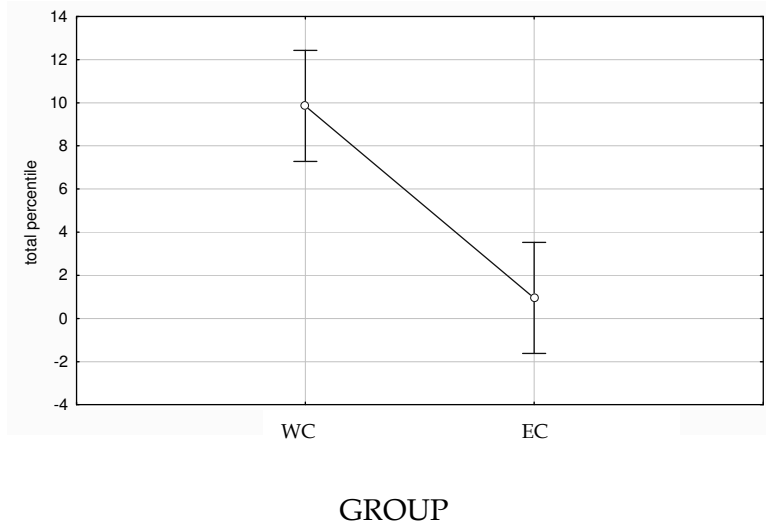


FIGURE 5.9

These results indicate that there is a significant difference between the WC and EC populations in terms of their overall performance on the three language domains of the DELV-A.

The typically developing (WC) learners obtained scores below the USA average, possibly due to their socioeconomic status, but more likely largely due to the fact that the USA norms cannot be generalized to this population. However, note that their scores are significantly higher than those of the atypically developing (EC) population, indicating that the total language composite score of the DELV-A yields an accurate distinction between typically and atypically developing learners in the test population.

5.6 The ARW vs the DELV amongst the EC learners

The performance of the EC learners on the ARW was compared to that on the DELV-A Semantics Domain on the basis of the age equivalence scores. This analysis indicates that there was no significant correlation between the scores of the participants on the DELV and the ARW ($r = 0.10$, $p = 0.67$). The results of this analysis are presented in terms of the age equivalent scores in Table 5.5 below, and reflected by the scatter plot in Figure 5.10.

TABLE 5.5: AGE EQUIVALENT (AE) RESULTS FOR EASTERN CAPE LEARNERS: DELV (SEMANTICS DOMAIN) VERSUS ARW																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CHRON AGE	6:7	6:8	7:2	7:5	7:6	7:1	8:2	8:2	8:3	8:4	8:5	8:7	8:8	8:1	9:0	9:1	9:2	9:3	9:9	9:1
DELV AE	4:0	5:2	<4:0	5:5	<4:0	<4:0	<4:0	5:5	<4:0	4:11	<4:0	4:8	4:2	4:2	<4:0	<4:0	4:2	4:0	4:4	6:0
AE DELAY	2:7	1:6	+3:2	2:0	+3:6	+3:1	+4:2	2:9	+4:3	3:5	+3:5	3:11	4:6	3:11	+5:0	+5:1	5:0	5:3	5:5	3:1
	-1SD	-1SD	-2SD	-1SD	-2SD	-2SD	-2SD	-1SD	-2SD	-1SD	-2SD	-1SD	-2SD	-2SD	-2SD	-3SD	-2SD	-2SD	-2SD	-1SD
ARW AE	4:4	4:3	4:0	4:4	4:4	4:10	5:10	5:2	3:10	3:11	3:11	4:9	3:11	4:4	5:2	4:6	4:10	5:3	4:0	5:11
AE DELAY	2:3	2:5	3:2	3:1	3:2	2:3	2:4	3:0	4:5	4:5	4:6	3:10	4:9	3:9	3:10	4:7	4:4	4:0	5:9	3:2
	-1SD	-2SD	-1SD	-2SD	-2SD	-2SD	-2SD	-2SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD	-3SD

COMPARISON OF EC LEARNERS ON THE DELV-A SEMANTICS DOMAIN AND THE ARW

ARW age eq(months):DELV age eq(months): $r=0.2256$, $p=0.3388$

Spearman $r=0.10$, $p=0.67$

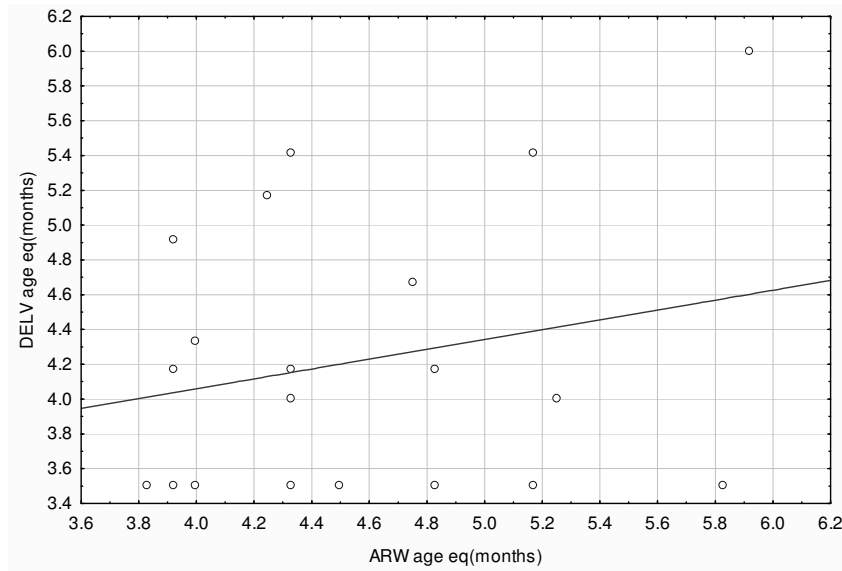


FIGURE 5.10

The results show that the performance of the typically developing WC learners on the DELV Semantics Domain is average, as the average percentile rank is 22.25. These results are appropriate as they are less than 1 standard deviation below the USA normative population. This percentile is less than 1 deviation below the mean and therefore their scores are within the normal range (although below the mean of 50). The atypically developing EC learners, on the other hand, are shown to be language delayed, as their average percentile ranking is 3.62, which is between 1 and 2 standard deviations below the norm. These results therefore indicate that the Semantics Domain of the DELV-A reveals an appropriate discrepancy between typical and atypical language development.

The average age equivalent score of the EC learners on the DELV-A is 4:2 and for the ARW 4:6. All of the EC learners were diagnosed as language delayed

on the DELV-A as well as with the ARW. However, as mentioned above, statistical analysis revealed (i) no correlation between the two assessment instruments, and (ii) that the DELV-A showed the majority of the learners to be more delayed than the ARW did. The question is whether these results could possibly be explained by the fact that the ARW is known to be biased against minority populations, whereas the DELV-A was developed specifically to avoid such bias and is more sensitive toward minority populations, possibly providing a more accurate assessment of the participants' semantic abilities. The ARW is specifically a vocabulary test. These types of assessment instruments are known to be inappropriate for many speakers of non-mainstream dialects. This is the case as the items are generally context-specific, therefore learners from low SES families have been shown to fare poorly. In the case of the DELV, it does not assess merely vocabulary, but rather semantic processing and may therefore be more suitable than the ARW in the context of these participants and provide a more accurate picture of the learners language abilities. However, it is not possible, on the basis of the present results alone, to come to any firm conclusion in this regard. The results show simply that the null hypothesis (cf. Section 4.2), which states that there will be a correlation between the DELV-A and ARW results for the EC participants, is not supported.

CHAPTER 6

CONCLUSION

The main aim of the present study was to determine whether the typically developing WC learners would outperform the atypically developing EC learners on the DELV-A. The results indicate this to be the case, and so it may be concluded that the DELV-A is capable of distinguishing language delay/disorder from normal language development among speakers of non-standard Afrikaans from lower SES backgrounds. It would appear that the DELV-A is indeed appropriate to assess children's language skills in a dialect-neutral manner.

A second aim of the study was to determine the correlation, if any, between the performance of the atypically developing EC participants on the DELV-A Semantics Domain and the ARW. The results indicated no correlation, with the DELV-A indicating greater delays than the ARW in most cases. This may be an indication that the DELV-A is, for this population of speakers of a non-standard dialect from a lower SES background, more sensitive to problems in this area than is the ARW. Further testing may inform this question further.

Although the present results offer support for the DELV-A as a dialect-neutral child language assessment instrument, it must be noted that it is still to be standardised on the South African population. Only then can the developers provide guidelines for appropriate allowance to be made for children from lower SES backgrounds. The results of the present study have implications for the further research which will be entailed in the standardisation of the DELV-A - these results should be compared to those from a group of higher SES learners, as well as speakers of the standard dialect, and of other non-standard dialects. In this regard, the relatively small sample size in the present study must be noted, and further testing on larger populations is necessary.

The development of the DELV-A (as well as the DELV-SAE and its envisaged translations into other languages with time) as a dialect-neutral child language assessment instrument promises to have a significant impact on the ability of South African SLPs to obtain valid and reliable test results when assessing learners with language difficulties. Such unbiased testing may also have a positive impact on treatment practices, as we come closer to the ideal in which all and only children with a language disorder receive the treatment they need.

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**APPENDIX A: LETTER REQUESTING PERMISSION TO COMPLETE
STUDY WITHIN THE WESTERN CAPE DEPARTMENT OF EDUCATION**

12 October 2007

Dr. R.S. Cornelissen
Western Cape Education Department
Private Bag X9114
Cape Town
8000

Re: Research in Western Cape Schools

**Towards a dialect-neutral assessment instrument for the language skills of
South African English- and Afrikaans-speaking children**

Dear Dr Cornelissen

I hereby request permission from the Western Cape Education Department to perform the above-mentioned research project in schools in the Western Cape. Briefly, the project entails administering a language test (the Diagnostic Evaluation of Language Variation) to 5- to 10-year-old Afrikaans- and English-speaking children. This test was developed by an American research team to differentiate between language pathology (which requires speech-language therapy) and (normal) language difference between various populations. The test is currently used with great success by American speech-language therapists; the present project aims to establish whether or not it also differentiates successfully between language-impaired and typically developing South African children of various language backgrounds, and to adapt it for this purpose where necessary.

I have contacted the headmasters of a number of primary schools in Stellenbosch and Somerset West in order to ascertain whether they would give permission (in principle) for the study to be conducted in their schools. Several headmasters have reacted positively, and therefore I would like to go ahead with obtaining official permission from the Department of Education. Please be so kind as to inform me of the correct procedure.

I enclose a document giving details on the research project, as well as a copy of the letter which was sent to the headmasters. Should you have any queries, please do not hesitate to contact me. I look forward to hearing from you.

Yours sincerely

Dr Ondene van Dulm

**APPENDIX B: LETTER GRANTING PERMISSION TO COMPLETE
STUDY WITHIN THE WESTERN CAPE DEPARTMENT OF
EDUCATION**

Dr Ondene van Dulm
Department of General Linguistics
University of Stellenbosch
Private Bag X1
MATIELAND
7602

Dear Dr O. van Dulm

**RESEARCH PROPOSAL: TOWARDS A DIALECT-NEUTRAL
ASSESSMENT INSTRUMENT FOR THE LANGUAGE SKILLS OF
SOUTH AFRICAN ENGLISH- AND AFRIKAANS-SPEAKING
CHILDREN.**

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

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **14th April 2008 to 26th September 2009.**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December 2008).

7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the Principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as submitted to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

**The Director: Education Research
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000**

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen

For: **HEAD: EDUCATION**

DATE: 03rd December 2007

**APPENDIX C: LETTER REQUESTING PERMISSION TO COMPLETE
STUDY WITHIN THE EASTERN CAPE DEPARTMENT OF
EDUCATION**

20 May 2009

Eastern Cape Education Department and Health Department

**Re: Research in Eastern Cape Schools, clinics and hospitals
Towards a dialect-neutral assessment instrument for the language skills of
South African English- and Afrikaans-speaking children**

To whom it may concern

I hereby request permission from the Eastern Cape Education Department to perform the above-mentioned research project in schools in the Eastern Cape. Briefly, the project entails administering a language test (the Diagnostic Evaluation of Language Variation) to 4- to 10-year-old Afrikaans- and English-speaking children. This test was developed by an American research team to differentiate between language pathology (which requires speech-language therapy) and (normal) language difference between various populations. The test is currently used with great success by American speech-language therapists; the present project aims to establish whether or not it also differentiates successfully between language-impaired and typically developing South African children of various language backgrounds, and to adapt it for this purpose where necessary.

I would like to contact caregivers of patients at Midland Hospital, as well as schools and clinics in Graaff-Reinet, in order to ascertain whether they would give permission for the study to be conducted. I would therefore like to go ahead with obtaining official permission from the Department of Education

and Department of Health. Please be so kind as to inform me of the correct procedure.

I enclose a document giving details on the research project. Should you have any queries, please do not hesitate to contact me on _____. I look forward to hearing from you.

Yours sincerely

Kim Marsh (Community Service Speech-Language Therapist)
On behalf of Dr Ondene van Dulm and Dr Frenette Southwood
(Stellenbosch University lecturers, Department of Linguistics)

**APPENDIX D: LETTER GRANTING PERMISSION TO COMPLETE
STUDY WITHIN THE EASTERN CAPE DEPARTMENT OF
EDUCATION**

PROVINCE OF THE EASTERN CAPE

Office Of The District Director

Graaff-Reinet

Department Of Education



Private Bag X726, Graaff-Reinet 6280, South Africa

ENQUIRIES: E.M. Kani Tel. No.: 049-8072200 Fax. No.: 049-8072254

To: Ms. Kim Marsh
 Stellenbosch University
 Cape Town
 2009-07-01

**SUBJECT: Request for permission to perform the Research towards a
dialect- neutral assessment instrument for the Language skills of South
Africa English & Afrikaans speaking children**

The above matter has reference.

Having met with the Management, the above matter was discussed at length and a decision taken. The Management has agreed to approve your application to conduct the above mentioned research.

This approval however is not without conditions. The conditions are as follows:-

The Research will be confined to the following schools:-[School names (4 in total) removed to maintain anonymity]

Parent's permission to use learners in the research should be secured by you. The Principals and rules guiding a research project should be observed.

The programme of teaching & learning should not be disturbed. The Research should not go beyond 30 September 2009 as the schools will be busy with exams during the last term of the year.

The Department should be privileged and receive a copy of the Research.

Wishing you good luck in your research.

Thank you

Signed

E.M. KANI

DISTRICT DIRECTOR

**APPENDIX E: LETTER GRANTING PERMISSION TO COMPLETE
STUDY AT THE EASTERN CAPE SCHOOL**

(school particulars blocked out to maintain anonymity)



20 July 2009

Attention: Ms. Kim Marsh

Stellenbosch University
Cape Town

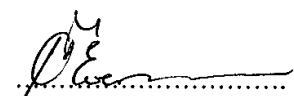
Dear Kim

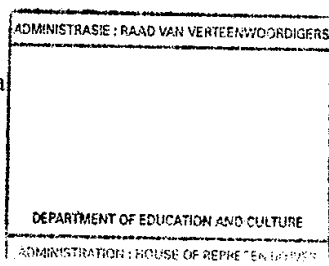
RE: Request for permission to perform the Research towards a dialect neutral assessment instrument for Language skills of South African English and Afrikaans speaking children.

I hereby wish to inform you that permission is granted to you to perform your research endeavor at our school.

Wishing you the best in your research.

Yours respectfully


A.M. EVERSON - Principa



APPENDIX F: SCREENING PROTOCOL (EC)

<u>EASTERN CAPE LANGUAGE SCREENING PROTOCOL</u>		
		RESPONSE: X/√
1	<u>Prepositions: Receptive</u>	
	In/under/on/in front/behind/next to	
2	<u>Prepositions: Expressive</u>	
	In/under/on/in front/behind/next to	
3	<u>Book Knowledge</u>	
	Front/back of book	
	Read from left to right	
	Author	
	Title	
4	<u>Alphabet Knowledge: Receptive</u>	
	A / B / C / D / E	
5	<u>Alphabet Knowledge: Expressive</u>	
	A / B / C / D / E	
6	<u>Story Telling</u>	
	Character names	
	Story sequence	

APPENDIX G: INFORMATION DOCUMENT: NATURE OF THE STUDY

14 Julie 2009

Geagte Ouer

GRATIS TAAL EVALUERING VIR U KIND

Ons gaan 'n studie oor die taal van Suid-Afrikaanse kinders uitvoer. Deur gebruik te maak van 'n Suid-Afrikaanse aanpassing van 'n Amerikaanse toets wat poog om die evaluering oor die taal van kinders van verskillende taal en kulture agtergronde sonder om bevooroordeel te wees. Ons wil graag die toets op u kind uitvoer. Die toets handel oor prentjies en hoe om verbale sinne en takke in min of meer 45 minute te bemeester.

As u belangstel in die gratis taal evaluering, vul asseblief die vorm in. Die voltooiing van die vorm sal nie langer as 10 minute duur nie en moet asseblief by die 24ste Julie 2009 terug gestuur word. As u nie belangstel nie, stuur asseblief die vorm terug.

Let op die volgende:

1. Alle informasie oor u en u kind sal streng privaat gehou word.
2. Om deel te wees van die studie, sal geen geld van u vereis.
3. Selfs al gee u toestemming om deel van die studie te wees, kan u en u kind, jul enige tyd onttrek, sonder om 'n rede daarvoor te gee.

As u enige vrae of meer inligting oor die studie verlang, is u welkom om my by die volgende nommer te kontak, 082 640 8953. Ons sal u vrae met graagte beantwoord.

Ons sien uit om van u te hoor. Ons vertrou dat die informasie wat saam gestel is gedurende die studie, 'n positiewe bydrae tot die effektiewe assessering oor die taal van Suid-Afrikaanse kinders sal hê.

Die uwe

Kim Marsh

Gemeenskapdiens Spraak-taal en Gehoor Terapeut

Midelaandse Hospitaal, Graaff-Reinet

14 July 2009

Dear Parent

FREE LANGUAGE ASSESSMENT FOR YOUR CHILD

We are conducting a study on the language of South African children. We are working on a South African adaptation of an American test which aims to assess the language of children from a variety of linguistic and cultural backgrounds in an unbiased and accurate manner. We would like to perform the test on your child. The test involves pointing out pictures and verbally completing sentences and takes approximately 45 minutes to administer.

If you are interested in this free language assessment, please complete the enclosed form and return it. The completion of this form should take no longer than 10 minutes and should be returned by Friday 24th July 2009. If you are not interested, please return the blank form.

Please note the following:

1. All information about you and your child will be treated as strictly confidential.
2. Participation in the study does not involve any costs on your part
3. Even if you do consent, you and/or your child may at any stage opt to withdraw from the study, without having to provide a reason.

Should you have any questions or require further information, you are welcome to contact us on 0826408953. We will be happy to answer your questions.

We look forward to hearing from you. We trust that the information gathered during this study will eventually make a positive contribution toward the effective assessment and remediation of the language of South African children.

Yours Faithfully

Kim Marsh

Community Service Speech-Language and Hearing Therapist

Midland Hospital, Graaff-Reinet

APPENDIX H: LETTER OF CONSENT

TAALEVALUERING VAN SUID-AFRIKAANSE KINDERS

Projek deur Dept Algemene Taalwetenskap, Universiteit Stellenbosch

Drs Ondene van Dulm en Frenette Southwood

TOESTEMMINGSVORM

Hiermee gee ek, _____, (volle name en van) in my hoedanigheid as ouer/voog (skrap wat nie van toepassing is nie) toestemming dat _____ (kind se volle name en van) aan die taalevaluasie-projek mag deelneem. Verder verklaar ek (i) dat ek die inligting op hierdie vorm uit vrye wil verskaf het, (ii) dat ek in Afrikaans deur die navorsers ingelig is dat die inligting op hierdie vorm en die inligting wat deur die taaltoets oor die kind verkry word as streng vertroulik hanteer sal word, (iii) dat ek in Afrikaans deur die navorsers ingelig is dat ek onder geen verpligting is om enige vraag te beantwoord wat ek as ontoepaslik, te persoonlik en/of affronterend beskou nie, en (iv) dat ek in Afrikaans deur die navorsers ingelig is dat deelname aan hierdie studie ter enige tyd deur my en/of die kind gestaak mag word, sonder dat redes vir die staking verskaf hoef te word.

Handtekening van persoon wat die vorm invul

Datum

LANGUAGE ASSESSMENT OF SOUTH AFRICAN CHILDREN
Project of Dept of General Linguistics, Stellenbosch University
Project leaders: Drs Ondene van Dulm and Frenette Southwood

CONSENT FORM

I, _____, (full names and surname), in my capacity as parent/guardian (delet which is not applicable), hereby grant permission for _____ (child's full names and surname) to participate in the language assessment project. I further declare that (i) I have provided the information on this form of my own free will, (ii) I have been infromed in English by the researchers that the infromation on this form and any information orvided by the testing procedure will be treated as strictly confidential, (iii) I have been informed in English by the researchers that I am under no obligation to answer any question which I regard as inappropriate, too personal, and/or offensive, and (iv) I have been informed in English by the researchers that participants in this study may be terminated at any stage by me and/or without a reason being provided.

Signature of the person completing the form

Date

APPENDIX I: CASE HISTORY QUESTIONNAIRE

INLIGTINGSVORM

Vul asseblief die inligting in die voorsiene spasies in en, waar toepaslik, omring die gepaste antwoord. Enige vraag wat u as te persoonlik of ontoepaslik beskou, kan u onbeantwoord laat; dit sal nie u kind se potensiele deelname aan hierdie studie belemmer nie. Baie dankie vir u moeite.

Datum waarop die vorm ingevul is: _____

Inligting oor u (die persoon wat die vorm invul): Naam: _____

Verhouding tot die kind (bv. moeder, voog, oupa): _____

Telefoonnommer: _____

E-posadres (indien beskikbaar): _____

Moedertaal: _____

Inligting oor u huishouding:

Aantal volwassenes in u huishouding: __ Aantal kinders in u huishouding: __

Watter van die volgende tale praat die volwassenes met mekaar?

Afrikaans Engels Ander (spesifiseer: _____)

Watter van die volgende tale praat die kinders met mekaar?

Afrikaans Engels Ander (spesifiseer: _____)

Watter van die volgende tale praat die volwassenes met die kinders?

Afrikaans Engels Ander (spesifiseer: _____)

Watter van die volgende tale praat die kinders met die volwassenes?

Afrikaans Engels Ander (spesifiseer: _____)

Inligting oor die kind wat moontlik aan die studie gaan deelneem:

Naam: _____

Geboortedatum: _____

Aantal ouer broers: _____ Aantal jonger broers: _____

Aantal ouer susters: _____ Aantal jonger susters: _____

Moedertaal: _____

Ander taal/tale wat die kind redelik goed kan praat: _____

Ander inligting oor die kind wat moontlik aan die studie gaan deelneem:

Het die kind al ooit oorinfeksie/middeloorontsteking gehad? Ja Nee

Indien wel, ongeveer hoeveel keer? _____

Op ongeveer watter ouderdom het die kind begin kruip? _____

Op ongeveer watter ouderdom het die kind begin loop? _____

Is u/die kind se onderwyseres besorgd oor die kind se intellektuele ontwikkeling? Ja Nee

Ly die kind aan enige van die volgende?

Epilepsie? Ja Nee

Serebrale gestremdheid? Ja Nee

Enige breinbesering? Ja Nee

Enige fisiese gestremdheid? Ja Nee

Enige verstandelike gestremdheid? Ja Nee

Enige ander chroniese toestand? Ja Nee

(Indien wel, spesifiseer): _____

Inligting oor die taal en gehoor van die kind wat moontlik aan die studie gaan deelneem:

Hoe goed hoor die kind volgens die ouer(s): Goed Redelik Swak

Vermoed die klasonderwyseres dat die kind 'n gehoorprobleem het?

Ja Nee

Het die kind al ooit 'n gehoortoets gehad? Ja Nee

Indien wel, wat was die uitslag? _____

Op ongeveer watter ouderdom het die kind sy/haar eerste woord gesê? _____

Wat was hierdie eerste woorde (indien u kan onthou)? _____

Ongeveer hoeveel woorde het die kind op 18 maande gesê? _____

Inligting oor die kind se hoofversorgers:

	Vroulike hoofversorger	Manlike hoofversorger
Verhouding tot die kind (bv. ma/oupa/voog)		
Bly die persoon in dieselfde huis as die kind?		
Hoogste skool standerd geslaag		
Hoogste na skool se kwalifikasie verwerf		
Werk die persoon tans?		
Beroep		

Enige ander inligting wat u as relevant beskou:

INFORMATION FORM

Please fill in the information in the spaces provided and, where applicable, circle the appropriate answer. Any questions you consider too personal or inappropriate may be left unanswered; this will not affect your child's potential participation in this study. Thank you for your cooperation.

Date upon which form is completed: _____

Information about you (the person completing the form:

Name: _____

Relationship to child (e.g. mother, guardian, grandfather): _____

Telephone Number: _____

E-mail address (if available): _____

Mother-tongue: _____

Information about your household:

Number of adults in your household: _____

Number of children in your household: _____

Which of the following languages do adults speak to each other?

English Afrikaans Other (specify: _____)

Which of the following languages do the children speak to each other?

English Afrikaans Other (specify: _____)

Which of the following languages do adults speak to the children?

English Afrikaans Other (specify: _____)

Which of the following languages do the children speak to adults?

English Afrikaans Other (specify: _____)

Information about the child who may participate in the study:

Name: _____

Date of Birth: _____

Number of older brothers: _____ Number of younger brothers: _____

Number of older sisters: _____ Number of younger sisters: _____

Mother Tongue: _____

Other language(s) which the child can speak reasonably well: _____

Further information about the child who may participate in the study:

Has the child ever had ear infection/middle ear infections? Yes No

If yes, approximately how many times? _____

At about what age did the child begin to crawl? _____

At about what age did the child begin to walk? _____

Are you/the child's teacher concerned about the child's intellectual development? Yes No

Does the child suffer from any of the following?

Epilepsy? Yes No

Cerebral Palsy? Yes No

Any brain injury? Yes No

Any physical disability? Yes No

Any mental disability? Yes No

Any other chronic condition? Yes No

(If yes, specify): _____

Information about the language and hearing of the child who may participate in the study:

How well does the child hear, according to the parent(s):

Well Reasonably well Poorly

Does the teacher suspect that the child has a hearing problem? Yes No

Has the child ever had a hearing test? Yes No

If yes, what was the result? _____

At approximately what age did the child say his/her first words? _____

What were these first words (if you can remember)? _____

Approximately how many words did the child say at 18 months? _____

At approximately what age did the child begin to use 2-word utterances (e.g. more juice; Mommy gone)? _____

Are you concerned about your child's language development Yes No

If yes, why? _____

Would you consider the child's language development at present to be 'normal'? Yes No

If not, why not? _____

Can the child read? Yes No

Does the child get read to from storybooks? Yes No

If yes, how often? _____

Does the child enjoy it? Yes No

Has the child ever been referred to or treated by any of the following?

Occupational Therapist: Yes No

Physiotherapist: Yes No

Child Psychologist: Yes No

Ear, Nose and Throat Specialist: Yes No

Neurologist: Yes No

Audiologist: Yes No

Remedial Teacher: Yes No

Speech Therapist: Yes No

If yes, when and what for? _____

Information about the child's main caregivers:

	Female Caregiver	Male Caregiver
Relationship to the child (e.g. mother/grandfather/guardian)		
Does the person live in the same house as the child?		
Highest school grade passed		
Highest tertiary qualification earned		
Does the person work at present?		
Occupation		

Any other information which you consider important:

APPENDIX J: SAMPLE DELV-A SCORE SHEET (FRONT PAGE)



Voorlopige Aangepaste Afrikaanse Weergawe-3

	Jaar	Maand	Dag
Toetsdatum			
Geboortedatum			
Kronologiese Ouderdom	07	02	

Naam: _____ Geslag: M V

Skool: _____ Graad: _____

Eksamineerder: _____

Onderwyser(es): _____

Etnisiteit: BI Ind Kl Sw Ander _____

Taalvarieteit vlg. eksamineerder: Standaardafrikaans

Kaaps

Ander _____

Doelgebied	Routelling	Onaangepaste Geskaalde Telling	Aangepaste Geskaalde Telling	Kritieke Waarde vir Vertrouensinterval (95% Vlak)	Geskaalde Telling Vertrouensinterval	Persentiele rang	Persentiele rang Vertrouensinterval	Toets-ouderdoms-ekwivalent
Sintaksis	18	3	3	3	1 tot 6	1	0.1 tot 9	24.0
Pragmatiek	3	1	2	3	1 tot 4	0.4	0.1 tot 2	24.0
Semantiek	16	2	2	3	1 tot 5	0.4	0.1 tot 5	24.0

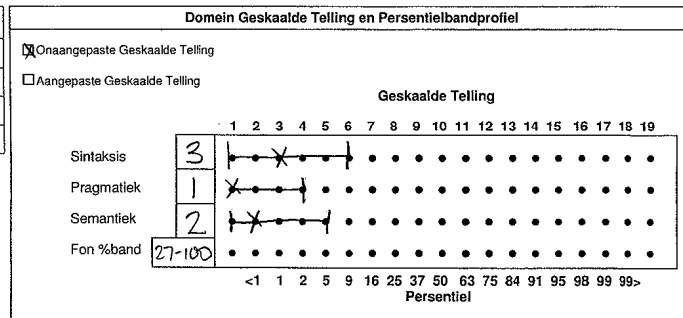
Doelgebied	Routelling	Persentielband
Fonologie	25	27-100

Quers se Opvoedingsvlak	1	2	3	4
*Bylaag B (Tabel B.2)				

Sint+Prag+Sem	<input checked="" type="checkbox"/> O <input type="checkbox"/> A Som van geskaalde tellings	Totale Saamgestelde Taaltelling	Saamgestelde Telling Vertrouensinterval (90% Vlak)	Persentiele rang	Persentiele rang Vertrouensinterval
	6	53	49 tot 67	0.1	20.1 tot 1

Doelgebied	<input type="checkbox"/> O <input type="checkbox"/> A Domein Geskaalde Tellings	Gemiddelde Geskaalde Telling	Verskil van Gemiddelde	Kritieke Waarde (.15 of .05)	Sterkpunt of Swakpunt (St) of (Sw)	Algemene Basismaatstaf
Sintaksis						
Pragmatiek						
Semantiek						

Som van Geskaalde Tellings*	
Aantal Domeine	+ 3
Gemiddelde Geskaalde Telling	
* Sintaksis, Pragmatiek en Semantiek	



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Diagnostic Evaluation of Language Variation (DELV).
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APPENDIX K: SAMPLE ARW SCORE SHEET

Katalogusnommer: 3411/1

AFRIKAANSE RESEPTIEWE WOORDESKATTOETS (ARW) ANTWOORDBLAD

VORM A

IDENTIFISERENDE BESONDERHEDE			
Naam _____	Verwysingsno. _____		
Skool _____	Huistaal _____		
Standaard _____ Klas _____	Geslag _____		
DATUM EN CHRONOLOGIESE OUDERDOM			
	Jaar	Maand	Dag
Toetsdatum			
Geboortedatum			
Chronologiese ouderdom	06	01	08
Chronologiese ouderdom afgerond	06	01	
* Indien die aantal dae 15 oorskry rond af na die volgende maand			
TOETSRESULTATE			
BEREKENING VAN ROUPUNT		NORMS EN HALFVERTROUENSINTERVALLENGTE	
Plafonitem <u>67</u>		Ouderdomsekwivalent <u>40</u>	
Minus foute <u>19</u>		Standaardtellingekwivalent <u>71</u>	
Roupunt <u>48</u>		Halfvertrouensintervallengte _____	
(Tel slegs foute tussen die hoogste basis en die laagste plafon)		vir 'n 95% vertrouenspeil. (Kyk in handleiding vir tabel met halfvertrouensintervallengtes).	
VERTROUENSINTERVAL VIR DIE WARE TELLING			
Dui die verkreë standaardtellingekwivalent aan met 'n vertikale lyn (), en die interval waarbinne die ware telling verwag kan word om 95 uit 100 keer te val, met hakies bv. [].			
OPMERKINGS			
.....			
.....			
.....			
TOETSAFNEMER _____			
SENTRUM _____			

GROEP: ONDERWYS

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Alle regte voorbehou



**APPENDIX L: SUMMARY AND CONVERSION OF SCORES FOR
SYNTAX DOMAIN**

RAW SCORES FOR SYNTAX DOMAIN (WESTERN CAPE LEARNERS)																				
Item	WC1	WC2	WC3	WC4	WC5	WC6	WC7	WC8	WC9	WC10	WC11	WC12	WC13	WC14	WC15	WC16	WC17	WC18	WC19	WC20
WH- QUESTION ITEMS																				
1	2	2	2	2	2	2	2	2	2	2	0	2	2	2	2	2	0	2	2	2
2	0	0	2	2	0	2	0	2	2	0	2	2	2	0	0	2	2	2	2	2
3	0	0	2	2	0	2	0	2	2	0	0	0	2	0	2	0	0	0	0	2
4	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	0	2	0	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2
6	2	2	2	0	2	2	2	0	2	2	2	2	2	0	2	2	2	2	2	2
7	2	2	2	2	2	2	2	2	2	2	2	2	0	0	2	2	2	2	2	2
8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	2	2	2
9	0	0	0	0	0	2	0	0	2	2	0	2	2	2	2	2	0	0	2	2
10	2	2	2	2	2	2	2	0	2	2	2	2	0	2	2	2	2	2	2	2
TOTAL (20)	12	14	16	16	12	20	12	14	20	16	14	18	16	12	18	18	12	16	18	20
PASSIVE ITEMS																				
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
12	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	1	1
13	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	1	0	0
14	1	1	0	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
16	0	1	0	0	0	0	1	1	0	1	0	1	0	0	1	1	1	1	1	1
17	1	0	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1	1	1
18	1	0	1	0	1	1	0	0	0	1	0	1	0	0	0	1	1	0	0	0
19	0	1	0	1	0	0	0	0	0	0	0	1	0	1	1	1	0	1	1	0
20	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
TOTAL (10)	7	7	6	7	6	7	8	6	3	8	5	7	7	5	9	9	7	8	8	7
ARTICLE ITEMS																				
21	0	0	0	1	1	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1
22	0	1	0	1	0	1	1	0	1	1	0	0	0	0	1	1	0	1	1	1
23	1	0	1	0	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0
24	1	0	1	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0
25	1	1	1	1	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	0
26	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	1	1	0
27	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	0
28	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0
TOTAL(8)	6	5	6	6	7	7	7	6	7	7	5	7	7	1	8	6	5	8	8	2
DOMAIN TOTAL (38)	25	26	28	29	25	34	27	26	30	31	24	32	30	18	35	33	24	32	34	29

SUMMARY AND CONVERSION OF SCORES FOR THE SYNTAX DOMAIN (WESTERN CAPE LEARNERS)									
<u>Learner</u>	<u>Chrono. Age</u>	<u>Wh- questions</u>	<u>Passives</u>	<u>articles</u>	<u>Total raw score</u>	<u>Unadjusted Scaled Score</u>	<u>Adjusted Scaled score</u>	<u>Percentile Rank</u>	<u>Age Equivalent</u>
WC 1	06:06	12	7	6	25	7		16	4:10
WC 2	06:08	14	7	5	26	7	7	5	5:0
WC 3	07:02	16	6	6	28	7	7	16	5:4
WC 4	07:07	16	7	6	29	7	7	16	5:7
WC 5	07:08	12	6	7	25	6	6	9	4:10
WC 6	07:10	20	7	7	34	9	9	37	7:0
WC 7	08:01	12	8	7	27	6	6	9	5:2
WC 8	08:01	14	6	6	26	5	5	5	5:0
WC 9	08:03	20	3	7	30	7	7	16	5:9
WC 10	08:04	16	8	7	31	7		16	6:1
WC 11	08:06	14	5	5	24	4	4	2	4:8
WC 12	08:08	18	7	7	32	8	8	25	6:5
WC 13	08:10	16	7	7	30	7		16	5:9
WC 14	08:11	12	5	1	18	2	2	0.4	<4:0
WC 15	09:01	18	9	8	35	9	9	37	7:6
WC 16	09:02	18	9	6	33	7	7	16	6:8
WC 17	09:03	12	7	5	24	3	3	1	4:8
WC 18	09:06	16	8	8	32	6	6	9	6:5
WC 19	09:06	18	8	8	34	8	8	25	7:0
WC 20	09:07	20	7	2	29	4	4	2	5:7

RAW SCORES FOR SYNTAX DOMAIN (EASTERN CAPE LEARNERS)																				
Item	EC 1	EC 2	EC 3	EC 4	EC 5	EC 6	EC 7	EC 8	EC 9	EC1 0	EC1 1	EC1 2	EC1 3	EC1 4	EC1 5	EC1 6	EC1 7	EC1 8	EC1 9	EC2 0
WH- QUESTION ITEMS																				
1	0	2	0	2	2	0	0	0	2	0	2	2	2	2	0	0	2	2	0	2
2	0	2	0	0	0	2	0	0	0	2	0	0	0	0	2	0	0	0	0	0
3	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	2	2	0
4	0	0	2	2	2	2	2	0	0	2	2	2	2	2	2	0	0	2	2	2
5	2	0	0	2	0	0	0	0	0	2	2	0	0	2	0	0	2	2	2	2
6	0	0	0	0	0	2	2	0	2	2	2	2	0	0	0	2	2	2	0	2
7	2	2	2	0	2	0	2	2	2	0	2	2	0	2	2	0	2	2	2	2
8	0	2	2	2	2	0	0	2	2	2	2	2	2	2	0	2	2	2	0	2
9	0	0	0	2	0	0	0	2	2	0	2	0	0	2	0	0	0	2	0	0
10	2	0	2	0	2	0	2	2	2	0	2	2	0	2	2	2	0	2	0	0
TOTAL (20)	6	8	8	10	10	8	8	8	12	10	16	14	6	14	8	6	10	18	8	12
PASSIVE ITEMS																				
11	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	0	0	0
13	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
16	1	1	1	0	1	1	0	0	1	1	0	1	0	1	0	1	1	1	1	1
17	1	0	1	1	0	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1
18	1	0	0	0	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1
19	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0
20	0	1	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1
TOTAL (10)	5	5	7	6	4	8	5	5	8	6	6	7	4	5	6	7	6	8	7	7
ARTICLE ITEMS																				
21	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	1
22	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
23	0	0	1	0	1	0	0	1	0	0	0	1	1	1	1	0	0	1	0	1
24	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0
25	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
26	0	0	0	1	0	1	1	0	0	0	0	1	0	0	0	1	0	1	0	1
27	0	1	1	1	0	0	1	1	1	1	0	1	1	0	1	1	0	0	1	1
28	0	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	1
TOTAL (8)	0	2	3	3	3	2	3	5	2	2	1	7	4	3	5	2	0	4	3	7
DOMAIN TOTAL (38)																				
DOMAI N TOTAL (38)	11	15	18	19	17	18	16	18	22	18	23	28	14	22	19	15	16	30	18	26

SUMMARY AND CONVERSION OF SCORES FOR THE SYNTAX DOMAIN									
Learner	Chrono. Age	Wh-questions	Passives	Articles	Total raw score	Unadjusted Scaled Score	Adjusted Scaled score	Percentile Rank	Age Equivalent
EC1	06:07	6	5	0	11	2	2	0.4	<4:0
EC2	06:08	8	5	2	15	3	3	1	<4:0
EC3	07:02	8	7	3	18	3	3	1	<4:0
EC4	07:05	10	6	3	19	3	3	1	<4:0
EC5	07:06	10	4	3	17	3	3	1	<4:0
EC6	07:10	8	8	2	18	3	3	1	<4:0
EC7	08:02	8	5	3	16	2	2	0.4	<4:0
EC8	08:02	8	5	5	18	2	2	0.4	<4:0
EC9	08:03	12	8	2	22	4	4	2	4:5
EC10	08:04	10	6	2	18	2	2	0.4	<4:0
EC11	08:05	16	6	1	23	4	4	2	4:7
EC12	08:07	14	7	7	28	6	6	9	5:4
EC13	08:08	6	4	4	14	1	1	0.1	<4:0
EC14	08:10	14	5	3	22	4	4	2	4:5
EC15	09:00	8	6	5	19	2	2	0.4	<4:0
EC16	09:01	6	7	2	15	1	1	0.1	<4:0
EC17	09:02	10	6	0	16	1	1	0.1	<4:0
EC18	09:03	18	8	4	30	5	5	5	5:9
EC19	09:09	8	7	3	18	1	1	0.1	<4:0
EC20	09:10	12	7	7	26	3	3	1	5:0

APPENDIX M: SUMMARY AND CONVERSION OF SCORES FOR PRAGMATICS DOMAIN

RAW SCORES FOR PRAGMATICS DOMAIN (WESTERN CAPE LEARNERS)																				
Item	WC1	WC2	WC3	WC4	WC5	WC6	WC7	WC8	WC9	WC10	WC11	WC12	WC13	WC14	WC15	WC16	WC17	WC18	WC19	WC20
COMMUNICATIVE ROLE-TAKING ITEMS																				
1	0	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	0	2	2	2
2	0	0	2	2	2	0	2	0	2	0	2	0	2	0	0	0	0	0	2	0
3	0	2	0	2	0	2	2	2	2	0	2	2	2	0	2	2	0	2	2	0
4	2	0	2	2	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2
TOTAL (8)	2	4	6	8	6	4	8	6	8	4	6	6	8	4	6	6	2	6	8	4
SHORT NARRATIVE ITEMS																				
5	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
6	1	1	1	1	0	1	1	1	1	0	0	1	1	0	1	1	1	0	0	1
7	0	0	2	2	2	1	0	0	0	0	0	0	0	0	2	2	0	1	1	2
8	0	0	2	1	2	1	0	0	0	0	0	0	0	0	2	1	2	2	1	2
TOTAL (7)	2	2	5	5	5	4	2	2	2	1	0	2	2	1	6	5	4	4	3	6
QUESTION ASKING ITEMS																				
9	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
11	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1
12	0	1	1	0	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0
14	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
15	0	1	0	0	1	1	1	1	0	0	0	1	0	1	1	1	1	0	1	1
16	0	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1	1
17	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
TOTAL (9)	4	9	7	6	8	7	6	7	6	5	5	6	4	5	9	8	6	6	7	7
DOMAIN TOTAL (24)																				
DOMAIN TOTAL (24)	8	15	18	19	19	15	16	15	16	10	11	14	14	10	21	19	12	16	18	17

SUMMARY AND CONVERSION OF SCORES FOR THE PRAGMATICS DOMAIN (WESTERN CAPE LEARNERS)									
Learner	Chrono. Age	Comm. role taking	Short narratives	Questions	Pragmatics raw score	Unadjusted Scaled Score	Adjusted Scaled score	Percentile Rank	Age Equivalent
WC 1	06:06	2	2	4	8	4		2	<3:0
WC 2	06:08	4	2	9	15	8	8	25	5:5
WC 3	07:02	6	5	7	18	8	8	25	6:2
WC 4	07:07	8	5	6	19	9	9	37	6:6
WC 5	07:08	6	5	8	19	9	9	37	6:6
WC 6	07:10	4	4	7	15	7	7	16	5:5
WC 7	08:01	8	2	6	16	6	7	9	5:8
WC 8	08:01	6	2	7	15	5	6	5	5:5
WC 9	08:03	8	2	6	16	6	7	9	5:8
WC 10	08:04	4	1	5	10	2		0.4	4:4
WC 11	08:06	6	0	5	11	3	4	1	4:7
WC 12	08:08	6	2	6	14	4	5	2	5:2
WC 13	08:10	8	2	4	14	4		2	5:2
WC 14	08:11	4	1	5	10	2	3	0.4	4:4
WC 15	09:01	6	6	9	21	2	3	0.4	7:6
WC 16	09:02	6	5	8	19	6	7	9	6:6
WC 17	09:03	2	4	6	12	1	2	0.1	4:9
WC 18	09:06	6	4	6	16	3	4	1	5:8
WC 19	09:06	8	3	7	18	5	6	5	6:2
WC 20	09:07	4	6	7	17	4	5	2	5:11

RAW SCORES FOR PRAGMATICS DOMAIN (EASTERN CAPE LEARNERS)																				
Item	EC1	EC2	EC3	EC4	EC5	EC6	EC7	EC8	EC9	EC10	EC11	EC12	EC13	EC14	EC15	EC16	EC17	EC18	EC19	EC20
COMMUNICATIVE ROLE-TAKING ITEMS																				
1	0	2	2	2	2	2	2	0	0	2	0	2	0	2	2	2	2	2	2	2
2	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	2	0	0	0	0
3	0	0	0	0	0	2	2	2	2	0	0	0	2	0	0	0	0	2	2	2
4	0	2	0	2	0	2	0	0	0	0	0	0	2	2	2	0	2	2	0	2
TOTAL (3)	0	4	2	4	2	6	4	4	2	2	0	4	6	4	4	4	4	6	4	6
SHORT NARRATIVE ITEMS																				
5	0	1	0	1	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0
6	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0
7	0	2	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0
8	1	2	1	1	1	0	0	1	0	0	1	2	1	2	0	2	0	2	1	0
TOTAL (7)	1	5	1	3	1	1	1	1	0	1	1	3	1	4	0	5	0	5	1	0
QUESTION ASKING ITEMS																				
9	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	1	1	1	1	1
10	1	0	0	1	1	1	0	1	0	1	0	1	1	1	0	0	1	0	1	1
11	1	1	0	0	1	0	0	1	1	1	0	1	1	1	0	0	1	1	1	1
12	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0	0	1	1	0	1
13	0	1	0	1	1	1	0	0	0	1	0	1	1	0	0	0	0	1	1	1
14	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0	0	1	1	1	1
15	0	1	0	1	1	0	0	1	1	0	0	1	0	0	0	0	0	1	1	1
16	0	1	0	1	1	0	0	1	1	1	0	1	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (9)	3	5	0	7	6	3	0	5	4	7	0	6	5	5	0	1	5	6	6	8
DOMAIN TOTAL (24)	4	14	3	14	9	10	5	10	6	10	1	13	12	13	4	10	9	17	11	14

SUMMARY AND CONVERSION OF SCORES FOR THE PRAGMATICS DOMAIN (EASTERN CAPE LEARNERS)									
<u>Learner</u>	<u>Chrono. Age</u>	<u>Comm. role taking</u>	<u>Short narratives</u>	<u>Questions</u>	<u>Pragmatics raw score</u>	<u>Unadjusted Scaled Score</u>	<u>Adjusted Scaled score</u>	<u>Percentile Rank</u>	<u>Age Equivalent</u>
EC1	06:07	0	1	3	4	2	3	0.4	<4:0
EC2	06:08	4	5	5	14	7	7	16	5:5
EC3	07:02	2	1	0	3	1	2	0.4	<4:0
EC4	07:05	4	3	7	14	6	6	9	5:2
EC5	07:06	2	1	6	9	3	4	1	4:0
EC6	07:10	6	1	3	10	3	4	1	4:4
EC7	08:02	4	1	0	5	1	2	0.1	<4:0
EC8	08:02	4	1	5	10	2	3	0.4	4:4
EC9	08:03	2	0	4	6	1	2	0.1	<4:0
EC10	08:04	2	1	7	10	2	3	0.4	4:4
EC11	08:05	0	1	0	1	1	2	0.1	<4:0
EC12	08:07	4	3	6	13	4	5	2	4:11
EC13	08:08	6	1	5	12	3	4	1	4:9
EC14	08:10	4	4	5	13	4	5	2	4:11
EC15	09:00	4	0	0	4	1	2	0.4	<4:0
EC16	09:01	4	5	1	10	1	1	0.1	<4:0
EC17	09:02	4	0	5	9	1	2	0.1	4:0
EC18	09:03	6	5	6	17	4	5	2	5:11
EC19	09:09	4	1	6	11	1	2	0.1	4:7
EC20	09:10	6	0	8	14	2	3	0.4	5:2

APPENDIX N: SUMMARY AND CONVERSION OF SCORES FOR SEMANTICS DOMAIN

RAW SCORES FOR SEMANTICS DOMAIN (WESTERN CAPE LEARNERS)																				
Item	WC 1	WC 2	WC 3	WC 4	WC 5	WC 6	WC 7	WC 8	WC 9	WC 10	WC 11	WC 12	WC 13	WC 14	WC 15	WC 16	WC 17	WC 18	WC 19	WC 20
VERB CONTRASTING ITEMS																				
1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
2	0	0	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1
3	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5	0	0	0	1	0	1	1	1	1	0	1	1	0	0	1	0	0	0	0	1
6	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1
7	0	0	1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	1	1	1
8	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	1	0	0
9	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
TOTAL (10)	5	4	7	6	7	9	8	8	7	7	7	7	2	7	9	7	7	8	6	8
PREPOSITION CONTRAST ITEMS																				
11	0	0	0	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	0	0	1	0	1	1	0	0	0	1	1	0	0	1	1	0	1	1	1
14	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
16	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0
TOTAL (6)	5	4	4	5	5	6	6	4	5	5	3	6	5	5	6	5	5	6	5	4
QUANTIFIER ITEMS																				
17	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1
18	1	1	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
19	0	1	1	0	0	1	1	1	1	0	1	1	0	0	1	0	1	1	1	1
20	1	1	0	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1
21	1	1	1	1	0	0	0	1	0	0	1	1	1	0	0	0	1	1	1	0
22	0	0	0	1	1	1	1	0	1	1	1	0	0	1	1	1	1	0	0	0
23	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	0	1	0	0	1	1	0	0	1	1	0	1	1	0	0	1	0	1	1	0
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL (9)	5	8	6	4	6	6	6	6	8	6	6	8	6	4	6	5	7	8	7	6

FAST MAPPING REAL VERB ITEMS																				
26	0	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1	0	1	1
27	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0
28	0	0	1	0	1	1	1	1	1	0	0	0	1	1	1	1	0	1	1	1
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	1	1	1	1	1	1	0	0	1	1	0	1	1	1	1	0	1	0	1	0
33	0	0	1	0	0	1	1	0	0	0	0	0	1	1	0	0	0	1	0	0
34	0	1	1	1	1	0	1	0	1	0	1	1	1	1	1	0	1	1	1	1
35	1	0	1	1	0	0	1	1	1	0	0	0	1	1	0	1	1	1	1	1
TOTAL (9)	4	5	9	6	6	7	8	4	8	4	3	5	7	8	6	6	6	6	6	6
FAST MAPPING NOVEL VERB ITEMS																				
36	0	0	1	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	0	1
37	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	1	1	0	0	0
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	1	0	1	0	0	1	1	0	1	1	1	0	1	0	1	0	1	0	0	0
40	1	0	0	0	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	0
41	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1
42	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0
45	1	1	0	0	0	1	0	1	1	0	0	1	1	0	1	0	0	0	1	0
46	0	0	0	0	1	0	1	0	1	1	0	0	1	0	0	1	0	0	0	0
47	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1
50	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0
TOTAL (12)	5	2	5	3	7	5	9	6	10	7	6	8	8	3	7	9	6	3	5	4
DOMAIN TOTAL (46)	24	23	31	24	31	33	37	28	38	29	25	34	28	27	34	32	31	31	29	28

SUMMARY AND CONVERSION OF SCORES FOR THE SEMANTICS DOMAIN (WESTERN CAPE LEARNERS)

<u>Learner</u>	<u>Chrono. Age</u>	<u>Verb contrast</u>	<u>Preposition</u>	<u>Quantifier 1</u>	<u>Quantifier 2</u>	<u>Fast mapping: real</u>	<u>Fast Mapping: Novel</u>	<u>Semantics Raw Score</u>	<u>Unadjusted Scaled Score</u>	<u>Adjusted Scaled score</u>	<u>Percentile Rank</u>	<u>Age Equivalent</u>
WC 1	06:06	5	5	2	3	4	5	24	6		9	4:6
WC 2	06:08	4	4	3	5	5	2	23	6	6	9	4:4
WC 3	07:02	7	4	3	3	9	5	31	9	10	37	6:5
WC 4	07:07	6	5	0	4	6	3	24	5	5	5	4:6
WC 5	07:08	7	5	1	5	6	7	31	9	10	37	6:5
WC 6	07:10	9	6	2	4	7	5	33	10	11	50	7:2
WC 7	08:01	8	6	2	4	8	9	37	11	12	63	9:3
WC 8	08:01	8	4	2	4	4	6	28	6	7	9	5:5
WC 9	08:03	7	5	3	5	8	10	38	11	12	63	>9:11
WC 10	08:04	7	5	1	5	4	7	29	7		16	5:8
WC 11	08:06	7	3	2	4	3	6	25	5	5	5	4:8
WC 12	08:08	7	6	3	5	5	8	34	9	10	37	7:9
WC 13	08:10	2	5	1	5	7	8	28	6		9	5:5
WC 14	08:11	7	5	0	4	8	3	27	6	6	9	5:2
WC 15	09:01	9	6	2	4	6	7	34	8	9	25	7:9
WC 16	09:02	7	5	0	5	6	9	32	7	7	16	6:8
WC 17	09:03	7	5	2	5	6	6	31	7	7	16	6:5
WC 18	09:06	8	6	3	5	6	3	31	7	7	16	6:5
WC 19	09:06	6	5	2	5	6	5	29	6	6	9	5:8
WC 20	09:07	8	4	3	3	6	4	28	5	5	5	5:5

RAW SCORES FOR SEMANTICS DOMAIN (EASTERN CAPE LEARNERS)																				
Item	EC1	EC2	EC3	EC4	EC5	EC6	EC7	EC8	EC9	EC10	EC11	EC12	EC13	EC14	EC15	EC16	EC17	EC18	EC19	EC20
VERB CONTRAST ITEMS																				
1	0	0	0	0	0	1	1	1	1	1	0	0	1	1	0	1	1	1	1	1
2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3	1	0	0	1	0	0	0	1	0	1	1	1	1	1	0	0	1	0	0	1
4	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1
5	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	1	1	0	1
6	0	1	1	0	0	0	1	1	0	1	0	1	0	1	0	1	0	0	0	1
7	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0
8	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
9	0	1	1	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0
10	1	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL (10)	2	4	3	4	1	1	4	7	3	7	3	5	4	5	2	3	4	5	3	7
PREPOSITION CONTRAST ITEMS																				
11	1	1	0	0	0	0	0	1	1	1	0	1	1	1	0	1	0	1	0	1
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1	1	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	1	1	0
14	0	1	1	1	0	0	1	1	1	1	0	1	0	1	0	0	0	0	1	1
15	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
16	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0	0	1	0	1	1
TOTAL (6)	3	5	1	4	1	1	2	3	4	4	1	5	4	3	1	2	3	3	4	4
QUANTIFIER ITEMS																				
17	1	0	0	1	1	1	0	1	0	1	0	1	1	0	1	0	0	0	1	1
18	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1
19	0	0	0	1	1	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0
20	0	1	0	1	0	1	0	1	0	1	1	0	1	0	0	0	0	1	1	1
21	0	0	1	1	0	1	1	1	0	0	1	1	0	1	1	1	1	1	0	1
22	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0
23	0	1	0	1	1	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1
24	1	1	1	1	1	1	1	0	1	0	0	0	0	1	0	1	0	0	1	0
25	1	0	0	1	1	1	1	1	0	1	0	1	1	1	0	0	1	1	1	1
TOTAL (9)	4	5	4	8	6	7	4	6	2	5	4	5	5	5	6	3	5	5	7	6

FAST MAPPING REAL VERB ITEMS																			
26	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1
27	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0
30	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0	1	1	1	1
31	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1
32	1	1	1	1	1	0	1	1	0	0	1	1	1	1	0	0	1	1	0
33	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
34	1	1	1	1	1	0	0	1	1	1	0	0	0	0	1	0	1	0	1
35	0	1	1	1	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
TOTAL (9)	5	6	6	7	5	4	4	5	4	3	4	4	4	4	3	2	5	5	5
FAST MAPPING NOVEL VERB ITEMS																			
36	1	0	0	1	0	0	0	1	1	0	0	1	1	1	1	0	0	0	1
37	1	0	0	1	0	1	0	1	1	1	0	1	1	1	1	0	1	0	1
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	1	0	0	0	0	0	1	1	1	0	1	0	0	1	0	1	1	1	0
40	1	1	1	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1
41	1	1	0	1	0	0	1	1	1	1	0	1	1	0	0	1	1	0	0
42	1	1	0	1	1	0	1	1	1	1	1	1	1	0	0	1	1	1	0
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
45	0	1	0	0	0	1	0	0	0	1	1	1	1	1	0	1	0	1	0
46	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	1	0	0	0
47	0	1	1	1	1	1	0	0	1	0	0	1	0	0	0	1	1	0	1
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
50	1	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1
TOTAL (12)	7	6	2	5	3	4	5	6	6	7	5	6	5	5	3	7	5	3	4
DOMAIN TOTAL(46)	21	26	16	28	16	17	19	27	19	26	17	25	22	22	15	17	22	21	23

SUMMARY AND CONVERSION OF SCORES FOR THE SEMANTICS DOMAIN (EASTERN CAPE LEARNERS)												
Learner	Chrono. Age	Verb contrast	Preposition	Quantifier 1	Quantifier 2	Fast mapping: real	Fast Mapping: Novel	Semantics Raw Score	Unadjusted Scaled Score	Adjusted Scaled score	Percentile Rank	Age Equivalent
EC1	06:07	2	3	2	2	5	7	21	5	5	5	4:0
EC2	06:08	4	5	1	4	6	6	26	7	7	16	5:2
EC3	07:02	3	1	1	3	6	2	16	2	2	0.4	<4:0
EC4	07:05	4	4	3	5	7	5	28	7	7	16	5:5
EC5	07:06	1	1	3	3	5	3	16	2	2	0.4	<4:0
EC6	07:10	1	1	2	5	4	4	17	2	2	0.4	<4:0
EC7	08:02	4	2	1	3	4	5	19	2	2	0.4	<4:0
EC8	08:02	7	3	2	4	5	6	27	6	6	9	5:5
EC9	08:03	3	4	1	1	4	6	19	2	2	0.4	<4:0
EC10	08:04	7	4	2	3	3	7	26	5	4	5	4:11
EC11	08:05	3	1	1	3	4	5	17	2	2	0.4	<4:0
EC12	08:07	5	5	3	2	4	6	25	5	5	5	4:8
EC13	08:08	4	4	2	3	4	5	22	3	3	1	4:2
EC14	08:10	5	3	1	4	4	5	22	3	3	1	4:2
EC15	09:00	2	1	3	3	3	3	15	1	1	0.4	<4:0
EC16	09:01	3	2	1	2	2	7	17	1	1	0.1	<4:0
EC17	09:02	4	3	1	4	5	5	22	3	3	1	4:2
EC18	09:03	5	3	1	4	5	3	21	2	2	0.4	4:0
EC19	09:09	3	4	2	5	5	4	23	3	3	1	4:4
EC20	09:10	7	4	2	4	6	6	29	6	6	9	6:0

**APPENDIX O: SUMMARY AND CONVERSION OF SCORES FOR THE
PHONOLOGY DOMAIN**

RAW SCORES FOR PHONOLOGY DOMAIN (WESTERN CAPE LEARNERS)																				
Item	WC1	WC2	WC3	WC4	WC5	WC6	WC7	WC8	WC9	WC10	WC11	WC12	WC13	WC14	WC15	WC16	WC17	WC18	WC19	WC20
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DOMAIN TOTAL (25)	23	24	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25

**SUMMARY AND CONVERSION OF SCORES FOR
THE PHONOLOGY DOMAIN (WESTERN CAPE
LEARNERS)**

Learner	Chrono. Age	Phonology raw score	Percentile Band
WC 1	06:06	23	25-28
WC 2	06:08	24	29-32
WC 3	07:02	25	27-100
WC 4	07:07	25	27-100
WC 5	07:08	25	27-100
WC 6	07:10	25	27-100
WC 7	08:01	25	26-100
WC 8	08:01	25	26-100
WC 9	08:03	25	26-100
WC 10	08:04	25	26-100
WC 11	08:06	25	26-100
WC 12	08:08	25	26-100
WC 13	08:10	25	26-100
WC 14	08:11	25	26-100
WC 15	09:01	25	26-100
WC 16	09:02	25	26-100
WC 17	09:03	25	26-100
WC 18	09:06	25	26-100
WC 19	09:06	25	26-100
WC 20	09:07	25	26-100

RAW SCORES FOR PHONOLOGY DOMAIN (EASTERN CAPE LEARNERS)																				
Item	EC1	EC2	EC3	EC4	EC5	EC6	EC7	EC8	EC9	EC10	EC11	EC12	EC13	EC14	EC15	EC16	EC17	EC18	EC19	EC20
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DOMAIN TOTAL (25)	25	25	25	25	25	24	25	25	25	24	25	25	25	25	25	21	25	25	25	25

SUMMARY AND CONVERSION OF SCORES FOR THE PHONOLOGY DOMAIN (EASTERN CAPE LEARNERS)			
<u>Learner</u>	<u>Chrono. Age</u>	<u>Phonology raw score</u>	<u>Percentile Band</u>
EC1	06:07	25	33-100
EC2	06:08	25	33-100
EC3	07:02	25	27-100
EC4	07:05	25	27-100
EC5	07:06	25	27-100
EC6	07:10	24	27-100
EC7	08:02	25	26-100
EC8	08:02	25	26-100
EC9	08:03	25	26-100
EC10	08:04	24	17-25
EC11	08:05	25	26-100
EC12	08:07	25	26-100
EC13	08:08	25	26-100
EC14	08:10	25	26-100
EC15	09:00	25	26-100
EC16	09:01	21	3
EC17	09:02	25	26-100
EC18	09:03	25	26-100
EC19	09:09	25	26-100
EC20	09:10	25	26-100

**APPENDIX P: SUMMARY AND CONVERSION OF SCORES FOR
OVERALL PERFORMANCE ON THE DELV**

RAW SCORES FOR THE SUM OF SCORES (WESTERN CAPE LEARNERS)																				
Item	WC 1	WC2	WC3	WC4	WC5	WC6	WC7	WC8	WC9	WC10	WC11	WC12	WC13	WC14	WC15	WC16	WC17	WC18	WC19	WC20
SYNTAX DOMAIN OUT OF 38	25	26	28	29	25	34	27	26	30	31	24	32	30	18	35	33	24	32	34	29
PRAGMATICS DOMAIN OUT OF 24	8	15	18	19	19	15	16	15	16	10	11	14	14	10	21	19	12	16	18	17
SEMANTICS DOMAIN OUT OF 46	24	23	31	24	31	33	37	28	38	29	25	34	28	27	34	32	31	31	29	28
PHONOLOGY DOMAIN OUT OF 25	23	24	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
TEST TOTAL OUT OF 133	80	88	102	97	100	107	105	94	109	95	85	105	97	80	115	109	92	104	106	99

SUMMARY AND CONVERSION OF SCORES FOR SUM OF SCALED SCORES (WESTERN CAPE LEARNERS)				
<u>Learner</u>	<u>Chrono. Age</u>	<u>Sum of scaled scores (Unadjusted)</u>	<u>Total lang composite</u>	<u>Percentile Rank</u>
WC 1	06:06	17	76	5
WC 2	06:08	21	82	12
WC 3	07:02	24	88	21
WC 4	07:07	21	82	12
WC 5	07:08	24	88	21
WC 6	07:10	26	91	27
WC 7	08:01	23	86	18
WC 8	08:01	15	74	4
WC 9	08:03	24	88	21
WC 10	08:04	16	74	4
WC 11	08:06	12	68	2
WC 12	08:08	21	82	12
WC 13	08:10	17	76	5
WC 14	08:11	10	63	1
WC 15	09:01	19	79	8
WC 16	09:02	20	80	9
WC 17	09:03	11	65	1
WC 18	09:06	16	74	4
WC 19	09:06	19	79	8
WC 20	09:07	13	70	2

RAW SCORES FOR THE SUM OF SCORES (EASTERN CAPE LEARNERS)																				
Item	EC1	EC2	EC3	EC4	EC5	EC6	EC7	EC8	EC9	EC10	EC11	EC12	EC13	EC14	EC15	EC16	EC17	EC18	EC19	EC20
SYNTAX DOMAIN OUT OF 38	11	15	18	19	17	18	16	18	22	18	23	28	14	22	19	15	16	30	18	26
PRAGMATICS DOMAIN OUT OF 24	4	14	3	14	9	10	5	10	6	10	1	13	12	13	4	10	9	17	11	14
SEMANTICS DOMAIN OUT OF 46	21	26	16	28	16	17	19	27	19	26	17	25	22	22	15	17	22	21	23	29
PHONOLOGY DOMAIN OUT OF 25	25	25	25	25	25	24	25	25	25	24	25	25	25	25	25	21	25	25	25	25
TEST TOTAL OUT OF 133	61	80	62	86	67	69	65	80	72	78	66	91	73	82	63	63	72	93	77	94

SUMMARY AND CONVERSION OF SCORES FOR SUM OF SCALED SCORES (EASTERN CAPE LEARNERS)				
<u>Learner</u>	<u>Chrono. Age</u>	<u>Sum of scaled scores (Unadjusted)</u>	<u>Total lang composite</u>	<u>Percentile Rank</u>
EC1	06:07	9	60	0.4
EC2	06:08	17	76	5
EC3	07:02	6	53	0.1
EC4	07:05	16	74	4
EC5	07:06	8	58	0.3
EC6	07:10	8	58	0.3
EC7	08:02	5	50	<0.1
EC8	08:02	10	63	1
EC9	08:03	7	55	0.1
EC10	08:04	9	60	0.4
EC11	08:05	7	55	0.1
EC12	08:07	15	73	4
EC13	08:08	7	55	0.1
EC14	08:10	11	65	1
EC15	09:00	4	48	<0.1
EC16	09:01	3	45	<0.1
EC17	09:02	5	50	<0.1
EC18	09:03	11	65	1
EC19	09:09	5	50	<0.1
EC20	09:10	11	65	1