

**MEDIUM OF INSTRUCTION AS DETERMINANT OF
STUDENT THROUGHPUT AT THE
VAAL UNIVERSITY OF TECHNOLOGY**

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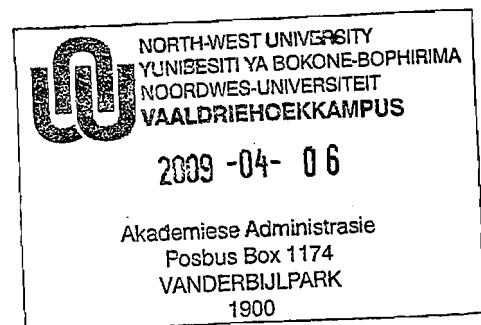
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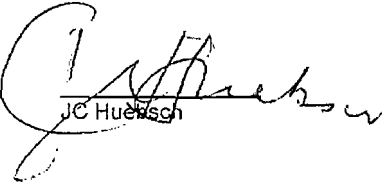
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CHECKING OF BIBLIOGRAPHY

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Yours sincerely

Prof CJH LESSING

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Dedicated to my father Jan Charles Huebsch.

SUMMARY

Keywords:

Academic performance; L1 speaker/learner/mother tongue speaker/ first language speaker; L2 speaker/ second language speaker; English second language; pass rate; results; influence; effect; L2 instruction.

This research study deals mainly with the influence of the medium of instruction on throughput at the Vaal University of Technology. The underlying hypothesis driving this research, is that learners at the Vaal University of Technology will tend to underachieve during their period of study, largely because the medium of instruction and assessment is not their first language, but a second or even a third language.

The assertion is that learners on tertiary level can only perform academically well if they have gained a certain level of competency in their mother tongue, to ease the difficult process of acquiring the second language English, which is the main medium of instruction at the VUT.

For most human beings language is the medium through which knowledge is transferred or negotiated. The success of this interaction is determined by the effectiveness of communication. Thus it would be fair to say, that if the means of communication is inappropriate, there will be little or no language transfer. Further, it seems logical that before any other considerations are made with regard to teaching and learning, the instrument which enables this interaction should first be in place.

The research aims are:

- To determine the influence of a second language as medium of instruction on academic performance.
- To establish the nature of the support system which might facilitate the advancement of learners not prepared for the academic demands of university.

- To determine what can be done to address the problem and provide possible recommendations for improved academic performance.

In order to attain the abovementioned research aims, a literature review and an empirical investigation were undertaken.

The literature study discussed the role which the medium of instruction has played in the history of South African Education. The South African Language Policy, before and after 1994, was then reviewed. Parent and learner choice in respect of the choice of medium of instruction was then considered. The findings of the empirical study have shown that the medium of instruction has a remarkable influence on learners' proficiency and eventual performance in their content subjects.

The empirical research was conducted by using a questionnaire in order to obtain data on relevant variables as indicated by the literature study, as well as identify barriers perceived by students that hamper their academic progress. Descriptive statistics, such as frequencies, were used to summarize the data. Marks from the compulsory language test at the institution were also taken into account in order to establish learners' English language proficiency. This data, together with students' marks, were interpreted in the empirical analysis.

The target population for this study consisted of L1 and L2 students who registered in 2004 and will have completed their studies in 2006, as well as students having completed in 2007. The population consisted of both female and male students from the Faculty of Visual Arts and Design.

In the last chapter, Chapter 6, conclusions from the literature review and empirical investigation were drawn. Recommendations for further research were provided which stressed the need for developing an appropriate training course for L2MI (Second Language Medium of Instruction) content subject teachers. Effective training in L2MI is one of the most important factors in improving the level of academic literacy in South African learners.

OPSOMMING

Sleutelwoorde:

Akademie se prestasie; Eerstetaalgebruiker/eerstetaalleerder/moedertaal-spreker; Engels Tweede Taal spreker/ Engels Tweede Taal; slaagsyfer; uitslae; invloed en uitkomst; Tweede taal onderrig.

Hierdie navorsingstudie fokus deurlopend op die invloed van die volgehoue onderrigmedium aan die Vaal Universiteit van Tegnologie. Die hipotese wat hierdie navorsing gemotiveer het, is dat die leerders aan die VUT tydens hulle studietermyn sal neig om te onderpresteer, grootliks omdat die medium van onderrig van instruksie en assessering nie in hulle eerste taal plaasvind nie, maar wel by wyse van 'n tweede of selfs 'n derde taal.

Die aanname word gemaak dat leerders op tersiêre vlak akademies goed kan presteer indien hulle 'n sekere mate van vaardigheid in hulle moedertaal bereik het om die moeilike proses te kan baasraak t.o.v die aanleer van Engels as 'n tweede taal, wat die hoofmedium van onderrig is aan die Vaal Universiteit van Tegnologie.

Vir die meeste mense is taal die medium waardeur kennis oorgedra of verhandel word. Die sukses van hierdie interaksie word deur die effektiwiteit van kommunikasie bepaal. Dit sou redelik wees om te beweer dat indien die kommunikasiemiddele ontoereikend is, daar geen of min kennisoordraging sal plaasvind nie. Dit kom ook logies voor, dat voordat enige oorwegings geskenk word t.o.v onderrig en leer, die instrument wat interaksie moontlik maak, heel eerste in plek moet wees.

Die navorsingsdoeleindes is:

- om vas te stel wat die invloed is van 'n tweede taal as instruksiemedium op akademiese vordering;
- die aard van die ondersteuningsstelsel wat die vordering, van daardie leerders wat nie gereed is vir die akademiese eise van 'n universiteit nie, te bepaal, en

- om te bepaal wat daar gedoen kan word om die probleem aan te spreek en moontlike aanbevelings voor te stel vir die verbetering van akademiese prestasie.

Ten einde hierdie akademiese navorsingdoelwitte aan te spreek, is 'n literatuuroorsig en 'n empiriese ondersoek gedoen.

Die literatuurstudie het die rol wat die medium van onderrig in die geskiedenis van die Suid-Afrikaanse Opvoeding en Onderwys gespeel het, bespreek. Die Suid-Afrikaanse Taalbeleid voor en na 1994, is dan bespreek. Oorweging is dan geskenk aan ouer- en leerderkeuses t.o.v die keuse van 'n onderrigmedium. Die bevindings van die empiriese navorsing het getoon dat die medium van onderrig 'n merkbare invloed het op leerdervaardigheid en uiteindelijke prestasie in hulle inhoudsvakke.

Die empiriese studie is gedoen deur gebruik te maak van 'n vraelys en so data te versamel t.o.v relevante veranderlikes soos deur die literatuurstudie uitgewys, asook om versperrings soos deur leerders gesien wat hulle akademiese vordering kortwiek. Beskrywende statistiek, soos frekwensietabelle is gebruik om die data op te som. Punte van die vereiste taaltoets aan die universiteit is ook in ag geneem om die leerders se taalvaardigheid in Engels vas te stel.

Die teikenpopulasie vir hierdie studie het bestaan uit eerstetaal- en tweedetaalleerders wat in 2004 geregistreer het en hulle studies in 2006 voltooi het, asook leerders wat in 2007 gepromoveer het. Die populasie het bestaan uit beide vroulike en manlike leerders uit die Fakulteit van Beeldende Kunste en Grafiese Ontwerp.

In die laaste hoofstuk, Hoofstuk 6, is gevolgtrekkings uit die literatuurstudie en empiriese navorsing gemaak. Aanbevelings vir verdere navorsing is gemaak wat die nodigheid beklemtoon om 'n relevante opleidingskursus vir Tweedetaal Medium van Onderrig vir vakgerigte onderwysers te ontwikkel. Effektiewe opleiding in Tweedetaal Medium van Onderrig is een van die belangrikste faktore om die akademiese bevoegdheid van Suid-Afrikaanse leerders te ontwikkel.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

The academic achievement of students who receive instruction in a language other than their mother-tongue has long been a major educational problem. Research by Barry (2002:108) shows that the language of instruction and achievement is directly linked and that low levels of competence in English affect the performance of learners in South Africa (Reese, 2000:18).

It was observed at the Vaal University of Technology (VUT), where this research was conducted, that these learners typically do not perform academically well across the curriculum. The medium of instruction at the VUT is English, and for most students, English is their second language. According to October (2002:6), the choice of language medium is a debate which is at the heart of educational reform. Diedericks (1997:1) describes English, in the South African context, as the common medium of communication because it is widely used in the media. An issue pertinent to the achievement of language minorities is the relationship between language proficiency and academic achievement. The definition of an English Language Learner (ELL) according to the Education Alliance at Brown University is a person who is in the process of acquiring English and has a first language other than English. Synonyms commonly found in literature include language minority students, limited English proficient (LEP), English as a second language (ESL), and culturally and linguistically diverse (CLD) learners (Education Alliance, Brown University, 2002).

For the purpose of this study, language minority students refer to those students for whom English is not their first language (L1), but a second (L2) or even a third language (L3), and who have a limited English proficiency (Lemmer, 1992:47). According to Linqanti (1999:1), language minority students are students from homes where the primary language spoken is not English. Language minority learners in multicultural institutions are not only

learning a second language to add to their repertoire of languages spoken, they are also called upon to partially or entirely use the L2 as a language of learning. Thus, language minority learners face a dual challenge: learning an L2 while at the same time having to use this language which they are in the process of acquiring to access academic content (Lemmer, 1992:47). Language minority students are a national resource to be nurtured and encouraged to attain their maximum level of achievement, just like any other children in an educational system (Council of Chief State School Officials, 1990:51).

It is necessary at the outset of this study, to define clearly what is meant by “first”, “second” and “third” language speakers, within the context of this research. According to Smith (2005:3) first language (L1) speakers are those who acquire a language – in this case English – spontaneously as a young child (i.e. it is their primary language). Second language (L2) speakers are those who acquire a language through formal study at school, and this learning process is supported by extended exposure to the language in daily life (i.e., it is an additional language). It is not their home language, but it is the language of instruction at school or educational institution and it is also heard and used by learners in the wider community. Thus, it can also be acquired outside of the classroom environment. A third language (L3) refers to a foreign language that is learned purely within the educational milieu, and for which there is little scope for practise and development outside of the school.

Kapp (1998:22) claims that the medium of instruction is a major factor impeding students' progress at the institution. In a study that she conducted she found that learners experienced a sense of frustration and alienation from what is termed “the culture of learning”, and had a real sense of feeling powerless in the classroom. Although many factors may play a role in determining a learner's level of academic success, recent theory in the field of SLA (Second Language Acquisition) suggests that a language medium could be a deciding factor in whether a learner does well or poorly academically. Young (1995:66) expresses the same concerns when he says, that English is

in high demand as a language for learning in schooling throughout South Africa. Those studying English as a first or second language spend up to 12 years learning it as a medium of instruction for at least eight of these years, in the case of second language learners. Why, then, do we have the demonstrably low levels of proficiency displayed by most ESL (English Second Language) learners after such lengthy school exposure to English?

For most human beings language is the medium through which information is transferred or negotiated. The success of this interaction is determined by the effectiveness of communication. Thus it would be fair to say, that if the means of communication is inappropriate, there will be little or no language transfer. Further, it seems logical that before any other considerations are made with regard to teaching and learning, the instrument which enables this interaction should first be in place. Cummins' (1991:172 – 173) psycholinguistic theory suggests, that if academic development of "language minority students is the goal, then students must be encouraged to acquire a conceptual foundation in their L1 to facilitate the acquisition of English academic skills. Also, academic skills in both L1 and L2 should be promoted through providing opportunities for students to use written and oral language actively for meaningful communication".

Some believe that learners' command of English is totally inadequate to deliver results and that they often fail school examinations purely because of their poor proficiency in English (Bosman, 2000:5; Roseberry-McKibbin & Brice, 2000:5; Sarinjeive 1999:132). Their poor performance results in poor academic achievement and learners not meeting national standards: from Grade One throughout all the important academic transitional phases, namely the Foundation, Intermediate and Senior Phases, up to Grade Twelve (SA, 2004:15).

Learners' poor proficiency in English is generally viewed as one of the contributing factors to the unsatisfactory matriculation results of South Africa's Black learners (Bosman, 2000:21). The sudden change from a learner's first language to a second language can be an important contributing factor to learner's poor academic performance. There is a false but pervasive belief

that children should “get into English” as soon as possible or they will be retarded in learning (Saville-Troike, 1991: 5 – 6). This statement, which referred originally to the USA, could just as well refer to certain beliefs we have regarding our own educational system here in South Africa. More and more primary schools are introducing English as a second language, as the language of learning (or medium of instruction) from ever-earlier ages. This is done in the belief that it will improve the learners’ fluency in English and promote good overall academic achievement.

Unfortunately, this may be far from the truth. It is possible that, by using a second language from too early on, the development of learners’ mother-tongue is stunted, impeding the development of their cognitive or academic abilities, promoting negative attitudes towards the L1, and resulting in poor academic performance (Bell, 2006:2). It is therefore, not surprising that the overall majority of language minority learners run a greater risk of underachievement and school dropout (Ovando, 2000:1).

Even on the tertiary level, students’ academic performance is influenced by their poor command of the English language. In a research survey at the University of Transkei by Mugoya (1991:11), 73 percent of learners interviewed, said that they “...fail to respond in the classroom because they are afraid to make mistakes in English”. South African tertiary students are currently faced with the scenario where they find themselves in classes where the language of instruction is different from their mother-tongue.

Raijmakers (1998:22) noted that during a period of ten years, 90% of the registered learners at the Vaal University of Technology had been speaking English as a second language. This has a significantly negative impact on the academic success of the learners. A primary challenge in educational institutions where there is cultural diversity, seems to be to meet the needs of learners from linguistically diverse backgrounds who have a limited English proficiency. Lemmer (1992:38 – 39) shares this view and adds that, while language minority students may be labelled by their lack of English-speaking skills, they are in fact a very diverse group. They frequently differ, not only in outwardly evident characteristics such as ethnicity, age, gender and language

background, but also in their communicative needs, their levels of proficiency in a second language, their attitudes towards it as well as their cognitive styles.

Miller (1998:167) says that the disturbing phenomenon of under-performance indicated by high failure rates at many South African universities is a major concern not only for academic development practitioners but also for the process of transformation that is currently taking place within higher education. According to Sarinjeive (1999:132), because of the high failure rate, it is incumbent upon lecturers to re-visit the issue related to the medium of instruction. Because of the prevalence of these problems in many universities in South Africa, it is time to provide for the basic English needs of students – such as writing, speaking and reading - at university level and within the mainstream teaching programme. Lewelling (1991:5) remarks, that for second language students to achieve their full potential, a strong commitment must be made to their educational needs and futures.

In an attempt to address the language issues at the institution, the VUT has established the EDL (English Development and Language) programme which addresses the academic literacy development of all first-year learners. The aim of the *Read On* programme, which is offered to all first-year learners, is to diagnose, instruct, provide practice and reinforcement of reading and language competencies.

The following research questions arise:

- What is the influence of a second language as medium of instruction regarding academic performance?
- What is the nature of the support system facilitating the advancement of learners, who are not prepared for the academic demands of university?
- What could be done to address the problem and which possible recommendations for improved academic performance of learners, can be provided?

1.2 RESEARCH AIMS AND OBJECTIVES

The purpose of this study, is to investigate possible reasons why learners do not perform academically well by receiving instruction in English (second language).

Specific objectives to be addressed, are the following:

- To determine the influence of a second language as medium of instruction regarding academic performance.
- To establish the nature of the support system which might facilitate the advancement of learners not prepared for the academic demands of university.
- To determine what can be done to address the problem and provide possible recommendations for improved academic performance.

1.3 HYPOTHESIS

The underlying hypothesis driving this research, is that learners at the Vaal University of Technology will tend to underachieve during their period of study, largely because the medium of instruction and assessment is not their first language, but a second or even a third language.

1.4 METHOD OF INVESTIGATION

1.4.1 Literature study

The researcher has mainly used primary sources retrieved from the Data Processing Department at the VUT. A search on EBSCO-host as well as a KGPV search has been done to find relevant reference sources. The following keywords have been used:

academic performance; L1 speaker/learner/mother-tongue speaker/ first language speaker; L2 speaker/ second language speaker; English second language; pass rate; results; influence; effect; L2 instruction.

1.4.2 Empirical research

1.4.2.1 Research approach and research design

Researchers differentiate between qualitative and quantitative research. Locke (1998:123) describes quantitative research as descriptive, correlative and predictive, experimental and quasi-experimental and single-subject. Qualitative research is described as being interpretative and critical.

This study made use of quantitative methods, because it appears to be the best method to achieve the aim of this study. The researcher used data obtained from the data information department at the VUT, as well as the results of questionnaires to obtain evidence of the throughput rate at the VUT.

A structured questionnaire was designed, based on the literature study, in order to obtain data on relevant variables as indicated by the literature study, as well as to identify barriers perceived by students which hamper their academic progress. Descriptive statistics, such as frequencies, were used to summarize the data.

Marks from the compulsory language test written at the institution were also taken into account in order to establish learners' English language proficiency. This data, together with students' marks, were used in the empirical analysis.

1.4.2.2 Experimental design

It is important to note that there is a variety of variables that can contribute to academic performance. Bearing this in mind the data was analysed by means of a multiple regression analysis to determine the best predictors of academic progress.

1.4.2.3 Target population

The target population for this study consisted of L1 and L2 students who registered in 2004 and completed their studies in 2006, as well as students who completed in 2007. The population consisted of both female and male students from the Faculty of Visual Arts and Design at the VUT.

1.4.2.4 Sampling

For the purpose of this study, no sampling was done and the whole population was included (N = 52). The academic results of the L1 and L2 learners from the Faculty of Visual Arts and Design at the VUT over a consecutive period of three years were compared, so as to ascertain whether L1 learners have performed better in their final results than have the L2 learners. All the final-year students from 2007 were included as well.

1.4.2.5 Data collection

It is essential to determine the instrumentation of the study, that is, what methods of gathering research are available – and suitable – to the proposed study (Locke, 1998:40).

Questionnaires, results of the language tests and existing data obtained from student records (2003 – 2006), were used in this study.

1.4.2.6 Data analysis

Descriptive statistics and multiple regression analysis will be done to analyse the data available. The Statistic Package for Social Scientists (SPSS) and STATISTICA were used to process the raw data.

1.4.3 Ethical aspects

Application for ethical approval will be done at the North-West University according to the prescribed form. Permission was also obtained from the VUT to use the data and all participants will remain anonymous. Feedback on results will be given to the relevant department(s). Data obtained, will not be used for purposes other than this study.

1.4.4 Procedure

Step 1: Literature study

Step 2: A questionnaire was developed, based on the literature study, in order to obtain data on other biographical variables, identified by

the literature study, which may have an influence on learner performance. Included in the questionnaire was a section on aspects perceived by learners to be barriers in their academic performance. After pilot-testing, the questionnaire was distributed among students who completed in 2007. Descriptive statistics were used to summarise the biographical data.

Step 3: The final marks of L1 and L2 students who registered in 2004 and completed their studies in 2006, as well as students completing in 2007, were analysed.

Step 4: Marks from the compulsory language test at the institution were analyzed in order to establish learners' English language proficiency.

Step 5: Multiple regression analysis was used to determine the best predictors of academic performance and the place of language within those predictors and to interpret the data.

Step 6: Conclusion and recommendations.

1.5 CONTRIBUTION TO FOCUS AREA

The study could contribute to the research focus area in creating a better understanding of the impact of second language as medium of instruction in tertiary education.

1.6 PROVISIONAL CHAPTER DIVISION

Chapter 1: Introduction and background to the study

Chapter 2: Medium of instruction in South Africa

Chapter 3: The influence of L2 instruction on the academic performance of L1 learners

Chapter 4: Research design and methodology

Chapter 5: Results and findings

1.7 RELATED RESEARCH

In this study the researcher has taken note of several literature studies which have already been undertaken on the topic of discussion.

Reese (2000:18) has shown that low levels of competence in English affect the performance of learners in South Africa. In a study on matriculation results by Bosman (2000:21), learners' poor proficiency in English is generally viewed as one of the contributing factors to the current unsatisfactory matriculation results of South Africa's Black learners. In a similar study by October (2002:6), the effect of medium of instruction on Matriculation examination results in the Western Cape Secondary Schools, was also addressed.

This research primarily focused on the effect of the medium of instruction on tertiary students' academic performance.

CHAPTER TWO

MEDIUM OF INSTRUCTION IN SOUTH AFRICA

2.1 INTRODUCTION

In the previous chapter, the problem statement and substantiation were discussed. The research aims and objectives were then stated. Then the method of investigation, as well as the provisional chapter division, was given.

In this chapter, the role which the medium of instruction has played in the history of South African Education, will be discussed. The South African Language Policy, before and after 1994, will then be reviewed. Parent and learner choice in respect of the choice of medium of instruction will also be discussed.

Since the early 1980's much research has been done in South Africa and elsewhere in Africa, around the effect of English medium of instruction on learners whose mother-tongue is not English. The questions expressed by these researchers range from why parents put their children into English medium schools (Rubagumya, 2003) to language policy and implementation in classroom contexts (Brock-Utne & Holmarsdottir, 2001) to the reasons for high failure rates. Many of these studies have also argued for the use of mother-tongue instruction in order to ensure that effective learning takes place in the classroom (Brock-Utne, Desai, Quorro, 2003; Mac Donald & Burroughs, 1991).

One of the primarily dominant features in the academic area is the choice of which medium of instruction best suits the South African situation. Often parents prefer their children to ignore their own mother-tongue in education and to rather use English in their studies. This could result from all schools not having the required infrastructure or staff motivation to accommodate more than one language, parents wanting to ensure a good social and successful financial future for their children by familiarizing their children with one or more international languages, parents believing that English is an open sesame to the job market and that studies cannot always be completed via

the use of African languages, as in schools where African languages are used as the medium of instruction (Laufer, 2000:3).

This chapter will focus on the language realities in South Africa where reference will be made to the distribution of languages. Secondly, an overview of language policy regarding the medium of instruction will be discussed. Thirdly, the period before and after the democratic elections in 1994 will be reviewed. The focus will be on the discrepancy between policy and practice, and in the fifth instance, parents' and learners' choice in respect of medium of instruction will be reviewed.

2.2 EXPLANATION OF CONCEPTS

2.2.1 English first language (L1)

Commonly referred to as the mother-tongue or the language that a person knows best; it is the language that a person learns first and/ or chooses to identify with (Ellis, 1985:11).

2.2.2 English second language (L2)

English second language refers to a language which is acquired or learned after gaining some competence in a first language. Usually it is not used in the learner's home, but it is used in the wider society in which the learner lives. However, there are vast discrepancies in the extent to which different learners are exposed to a second language. In some cases, what is termed a second language, may in effect be a foreign language, because the learner has no exposure to the language outside the classroom (Ellis, 1985:23).

2.2.3 Language proficiency

Language proficiency or linguistic proficiency is the ability of an individual to speak or perform in an acquired language. As theories vary among pedagogues as to what constitutes proficiency, there is little consistency as to how different organizations classify it (Ellis, 1985:40).

2.2.4 Medium of instruction (MOI)/ language medium)

Medium of instruction refers to the language through which teaching and learning is conducted in a given educational institution (Ellis, 1985:15).

2.2.5 Language acquisition

Language acquisition is the process by which language develops in humans. First language acquisition concerns the development of language in children, while second language acquisition focuses on language development in adults as well as in children (Ellis, 1985:23).

2.2.6 Second language acquisition (SLA)

SLA refers to the body of research into language acquisition by non-native speakers. The field of SLA research investigates the influences on and rate of L2 development (Ellis, 1985:24).

2.2.7 Linguistic Competence

Linguistic competence is defined as a speaker-hearer's ability to speak and understand language in a grammatically-correct manner (Otteneimer, 2006:95).

2.2.8 Linguistic Performance

A speaker's actual use of language in real situations; what the speaker actually says, including errors and other non-linguistic features such as hesitations and or other disfluencies (Ellis, 1985:34).

2.2.9 Universal Grammar (UG)

Universal Grammar is a theory of linguistics postulating principles of grammar shared by all languages, thought to be innate to humans. It attempts to explain language acquisition in general, not describe specific languages. Universal Grammar proposes a set of rules intended to explain language acquisition in child development (Jordan, 2004:19).

2.2.10 Bilingualism

Bilingualism refers to the ability to use two (or more) languages. There are various degrees of bilingualism. At one extreme are people who have native-like control over two languages and at the other extreme are people who have just begun to acquire a second language (Ellis, 1985:36).

2.2.11 Multilingualism

The term multilingualism can refer to an occurrence regarding an individual speaker who uses two or more languages, a community of speakers where two or more languages are used, or between speakers of different languages (Ellis, 1985:45).

2.2.12 Basic interpersonal communicative skills (BICS)

This is a basic level of language competence which enables a person to speak and listen to others about everyday matters. Language at this level is context-embedded, i.e. the language on its own does not carry the meaning, it also depends on its immediate context to make meaning. Cummins (1984) makes an important distinction between BICS and CALP (Cognitive Academic Language Proficiency). Language competence at the BICS level does not enable a child to perform cognitive operations with sufficient proficiency for that language to be used as the medium of instruction (Cummins, 1984:24).

2.2.13 Cognitive Academic Language Proficiency (CALP)

Cummins (1986) defines this as a higher level of language competence which enables a person to read and write in a language at a context-reduced level of abstraction which enables him or her to perform cognitive operations in that language (Cummins, 1984:26).

2.2.14 The Additive and Subtractive Approach

Lambert, cited in Baker (1996:57), views additive bilingualism as a situation '...where the addition of a second language and culture are unlikely to replace or displace the first language and culture', and subtractive bilingualism as a

situation where '...the learning of a majority second language may undermine a person's minority first language and culture'.

2.3 THE REALITIES OF LANGUAGE DIVERSITY IN SOUTH AFRICA

Before discussing South Africa's language policy it is important to contextualize the country's language diversity (Beukes, 2004:2). The southern tip of the African continent is home to a great variety of language and culture groups. The diversity is the result of the influx of various groups of people to that region over the centuries. The very first groups to inhabit the southern African region, were the Khoi and San people who lived here for millennia. Some time around the 12th century, Bantu ancestors started to move across the huge continent to its southern extreme and, in about the 17th century, other ancestors began to sail to our shores from Europe (Portuguese, Dutch, French, Germans, and British) and also from the East (Malaysia, Indonesia and India). The word Bantu was first used by Wilhelm Heinrich Immanuel Bleek (1827-1875) with the meaning 'people', as this is reflected in many of the languages of this group.

In many respects, the country is indeed a rainbow nation, as former President Nelson Mandela so often referred to it (Beukes, 2004:3). The majority of South Africans, almost 80% of the population, use an African language as their home language.

Some 25 languages are used in South Africa on a daily basis by more than 44, 8 million people (Statistics South Africa, 2001). According to the latest available census statistics, the main home languages of South Africa are as follows:

Figure 2.1: Language distribution of L1 speakers

Language (first language speakers)	1996 (%)	2001 (%)
isiZulu	22,9	23,8
isiXhosa	17,9	17,4
Afrikaans	14,4	13,3
Northern Sotho (Sepedi)	9,2	9,4
Tswana	8,2	8,2
English	8,6	8,2
Southern Sotho (Sesotho)	7,7	7,9
Tsonga (XiTsonga)	4,4	4,4
Swati (Siswati)	2,5	2,7
Venda (Tshivenda)	2,2	2,3
Ndebele (isiNdebele)	1,5	1,6
Other	0,6	0,5
Total	100	100

(Carstens, 2006:3)

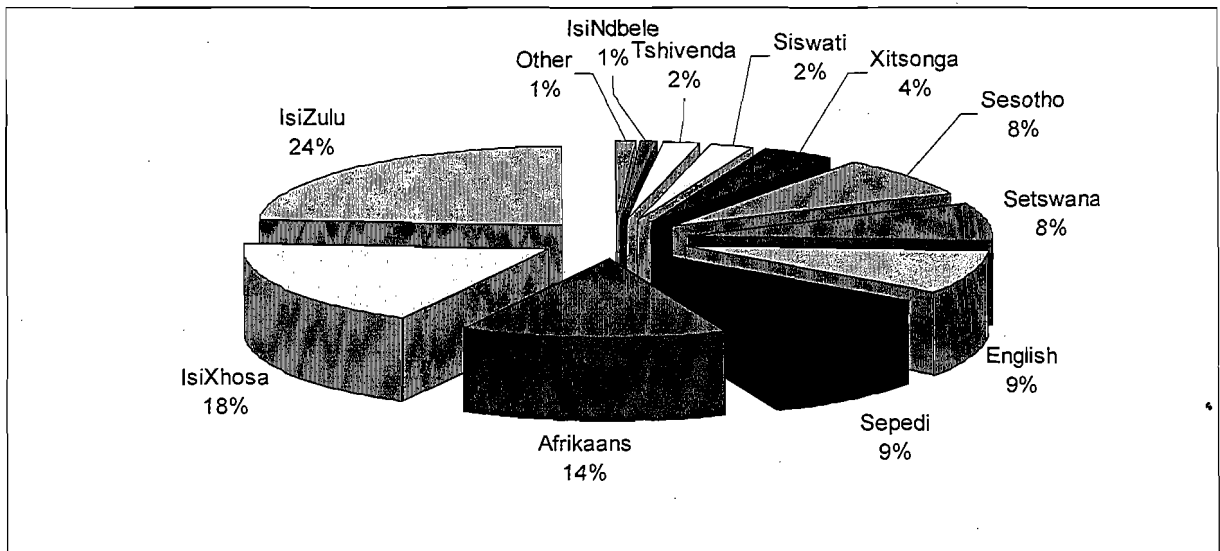
In terms of the United Nation's definition of *development*, South Africa has, since the demise of apartheid a decade ago, made significant progress in effecting a radical break with the past and improving the social well-being of those citizens who were previously relegated to the 'underdevelopment zone' (Chumbow, 2003).

Statistics obtained in the 1996 and 2001 censuses, show the scope of multilingualism in South Africa. The particularly unusual position in respect of multilingualism, is that South Africa has more official languages at a national level than any other country (Mvulane, 2003). Several indigenous languages are spoken across provincial borders and regions in South Africa. These

languages are shared by speech communities from different provinces across the country (Mvulane, 2003:5).

Figure 2.2 indicates that the majority of South Africans, almost 80% of the population, use an African language as their home language. The most commonly-spoken home language is isiZulu, which is spoken by 23, 8% of the population, followed by isiXhosa (17, 6%) and Afrikaans (13, 3%). English is used as a lingua franca across the country, but is the home language of 8, 2% of the population (Statistics South Africa, 2001).

Figure 2.2: Language distribution in SA according to first home language



(Stats in Brief 2002, Statistics South Africa)

Gell-Mann (1994:341) states that cultural diversity is itself a valuable heritage that should be preserved: “that Babel of languages, that patchwork of religious and ethical systems, that panorama of myths, that potpourri of political and social traditions, accompanied as they are by many forms of irrationality and particularism”.

After the long reign of “apartheid” ended in 1994, the new government of South Africa transformed its language policy to include indigenous languages. The policy that was created, made way for 11 official languages, including

nine indigenous tongues, instead of solely supporting the languages of the previous colonizers (Conner, 2004). The represented languages include the following:

- **Sesotho SA Leboa:** **Sesotho SA** Leboa is spoken mostly in the northern province of South Africa. It is sometimes wrongly referred to as Sepedi, which is a dialect of the language. This indigenous language has 3, 6 million first language speakers and was converted to written form by Berlin missionaries.
- **Sesotho:** Sesotho is the mother-tongue of 3,1 million people, 8% of the population of South Africa. It is the official language of Lesotho and also is spoken in Pretoria and Brits.
- **Setswana:** Setswana (also known as Tswana) was the first Sotho language written. It is spoken in Botswana, Northern Cape, Central and Western Free State as well as the North-West Province of South Africa.
- **SiSwati:** Also known as Swazi, SiSwati is the official language of Swaziland, and has over one million 1st language speakers. It is closely related to Xhosa, Zulu and Ndebele. The Swazi people originated from the Pongola River valley in KwaZuluNatal.
- **Tshivenda:** About 600,000 people in Northern Transvaal and in Zimbabwe speak this language. It is truly an amalgamation of many languages and traditions. It shares a grammar with Sesotho and various other Shona dialects in Zimbabwe.
- **XiTsonga:** In South Africa alone, 1, 5 million people claim Tsonga as their first language.
- **isiNdebele:** Originally from the Nguni people, isiNdebele is the last spoken of the 11 official languages of South Africa. It has less than 590,000 first language speakers.

- **isiXhosa:** With 6,5 million speakers, Xhosa is the most widely distributed African language in South Africa, though it doesn't have the largest number of speakers.
- **isiZulu:** Zulu is a tonal language named in the 16th century for the chief who erected the royal line. It is the most spoken indigenous language in Africa, making up the mother-tongue of 9 million Africans.
- **Afrikaans:** Afrikaans is a language unique to South Africa; the country is the place of its origin and the only place in the world where it is spoken. Afrikaans is spoken by over 5.5 million people as their home language and was the language of instruction in early schools.
- **English:** English is the home language of about 3.4 million South Africans. Along with Afrikaans, English also was the official language during "apartheid" and still is linked with upward mobility due to its global importance. It is also the primary language used in government, business and commerce.

2.4 AN OVERVIEW OF POLICY REGARDING THE MEDIUM OF INSTRUCTION IN SOUTH AFRICA

In order to have a clear understanding of the present language realities in the South African education system, it is important to take note of some historical developments that still have an influence on the medium of instruction in our country today.

2.4.1 Medium of instruction prior to 1984

In the early years of our country (1652 – 1806) single-medium schools using Dutch as a medium of instruction, catered for all, from the Dutch settlers, Hottentots and slaves to the French Huguenots. During the following period of our history, the period of British rule (nineteenth and early twentieth century), English was mainly used as medium of instruction. It was only after South Africa became a union that our education system introduced two languages, English and Afrikaans as media of instruction (Rossouw, 1999:99).

When the National Party gained dominance in South Africa in 1948, they used the language policy as an important component in the total repertoire of policies designed to put a brake on the 'Westernisation' of the African population (Mazrui, 1988:89).

Bantu Education, the education policy of the Afrikaner-dominated Nationalist Government, attempted to steer Africans towards Afrikaans in what appeared to be becoming more and more a choice between Afrikaans and English, where Afrikaans was seen as a symbol of White oppression and a language of racial claustrophobia whereas English was seen as a language of Pan-African communication (Mazrui, 1988:90; Heugh, 2002:187).

This met with opposition from African communities, because of its association with the new "apartheid" regime. It was seen as a strategy by the government to prevent upward African mobility and thereby to ensure a perpetual reservoir of cheap labour (NEPI, 1992:29).

It was the issue of the order for Black school pupils to be taught in Afrikaans and not English that triggered the explosive 1976 riots in which 600 people died. In addition, as the homelands that had been created under the apartheid policy accepted self-government, they one after another chose English and an indigenous language as their official languages (Giliomee, 1999:123).

According to Bostock (1999:2) it is possible to interpret the South African language policy under minority rule as an attempt to secure and enhance the future of one group at the expense of the others, to a major or minor degree. For Blacks, it brought, through the 'mother-tongue education' and the non-offering of English, amongst others, a state of insecurity and exclusion and habituation to violence.

The explanation of how South Africa went from minority to majority rule is the subject of much speculative analysis (Giliomee, 1999), but it can be argued that language policy has played a major part.

2.4.2 Medium of instruction from 1984 – 1994

The “apartheid” government introduced in 1984, a new constitution for the Republic of South Africa. This constitution divided the national parliament into three chambers (the *tricameral* parliament): one for representatives of White voters (the House of Assembly), one for representatives of Coloured voters (the house of Representatives) and one for representatives of Indian voters (the House of Delegates) (Bunting, 2002:36). No provision was made in the 1984 constitution for any representation of Africans in the RSA parliament, even though this group constituted at least 75% of the population living in the RSA (Bunting, 2002:36).

A key element in the creation of the three separate parliamentary houses in the RSA in 1984 was a distinctive drawn between ‘own affairs’ and ‘general affairs’. What were described as ‘own affairs’ were matters specific to the ‘cultural and value frameworks’ of the Coloured or Indian or White communities. ‘General affairs’ were those which had an impact across all racial communities. Education was considered by the 1984 constitution to be an ‘own affair’ as far as Whites, Coloureds and Indians were concerned. This implied that all education for Whites (primary, secondary and higher) was the responsibility of the House of Assembly, for Coloureds that of the House of Representatives, and for Indians that of the House of Delegates. This constitution considered education for Africans in the RSA to be a ‘general affair’. Responsibility for the education of Africans was therefore, vested in a ‘general affairs’ government department which was termed the ‘Department of Education and Training’ (DET) (Bunting, 2002:36).

During this era education policy on various aspects, language being one such aspect, differed for the four main population groups. The medium of instruction for Whites was mother-tongue, either English or Afrikaans, which was compulsory for all children in all schools up to and including Standard 8. In standards 9 and 10 the parents could choose either official language (Afrikaans or English at that stage) to serve as medium of instruction for their child.

In Black communities various African languages were the mother-tongue of different groups. None of these African languages were at that stage viewed as a suitable medium of instruction at secondary and tertiary levels, mainly because the development of the Black education system (a transplant of a developed Western education system) has outstripped the development of the indigenous languages that ought to serve as medium of instruction. (Vos & Barnard, 1984:112 – 113).

The medium of instruction for Coloureds in the primary schools was either English or Afrikaans. Parallel medium schools were found in areas where the community used both languages or where there were no separate schools for the two language groups. In post-primary education there was a choice between either English or Afrikaans.

Indian children (Muslim and Hindu) with different mother-tongues, such as Tamil, Hindi, Gujarati, Telegu and Urdu as well as English, attended the same schools. English was the medium of instruction in all primary and secondary schools (private Muslim religious schools excluded) of the Department of Indian Education. In tertiary institutions English was the only medium. Afrikaans was also a compulsory school subject up to standard 10 (Vos & Barnard, 1984:114 – 115).

The most important criticism against the Tricameral Parliament was that the African majority was excluded from the entire process. The National Party Government argued that Africans did not qualify for representation in Parliament, because they already had political rights in their respective homelands, and that greater political rights were extended to Coloured and Indians because they did not have their own homelands in which to exercise such rights. Yet it was clear that Coloured and Indian representation in the Tricameral Parliament would be largely cosmetic, as real political power would remain concentrated in the House of Assembly, and, by extension, in the hands of the White minority (SAHO, 2006:2).

According to Vermeulen (2000:12), language-in-education policies in South Africa have been so politicised since the early 1800s that educational and

linguistic arguments were often ousted from their valid and conclusive positions in the debate. The language policies of successive governments from 1910 to 1994, in the minds of White and Black communities, were overshadowed by the perception that educational motives were secondary to political ones.

According to Rossouw (1999:100) and Chick (1992:275) the advantages of primary language teaching were, in the minds of the Black community, overshadowed by the perception that educational motives were secondary to political ones. Language decisions, as indicated by Young (1995:68), were often taken on pragmatic, political and economic grounds rather than on the basis of what is educationally and linguistically sound and best for all learners.

Ethnic segregation (Rossouw, 1999:103), to divide and rule Black people and to set a ceiling on their advancement is still perceived to have been the main objective of the unpopular, but educationally and linguistically correct mother-tongue policy of the former "apartheid" regime (Chick, 1992:275). For the ANC (1990:61) the colonial and White minority governments have used language policy in education as an instrument of cultural and political control, first in the battle for supremacy between the British and the Boers, and subsequently in maintaining white political and cultural supremacy over the Black majority. Black parents in South Africa perceive mother-tongue instruction generally as discriminatory and as a political ploy (Heugh, 1995:42; Vinjevold, 1999:208; Young, 1995:68) in which English and particularly Afrikaans were privileged whilst the African languages were undervalued and underdeveloped by the education system (Luckett, 1995:73).

The period of minority rule cannot only be seen as a battle between races but also as one between language as a vehicle of identity. This was particularly meaningful for Afrikaners where their very existence was manifested in the living language of Afrikaans (Giliomee, 1999:122).

2.4.3 South African Language Policy: 1994 and further

On 27 April 1994, a new democracy was born when Nelson Mandela was inaugurated as first president of the 'new' Republic of South Africa. The

world's attention was focused on a small country on the southern tip of Africa where a "political miracle" ensured a remarkably peaceful transition of power (Beukes, 2004:1).

The cycle of linguistic oppression was symbolically loosened when "apartheid" was abolished after the 1994 democratic elections and was dissolved more officially in 2003 when the revised language policy proclaimed the inclusion of the nine indigenous languages (Conner, 2004:4).

The Constitution of the RSA (SA 1996a:13) and the South African Schools Act (RSA 1996:8) acknowledge the right of all learners to receive education in the official language or languages of their choice in public educational institutions where it is reasonably practicable. The Constitution therefore, "recognises cultural diversity as a valuable national asset, and tasks the government to promote bilingualism, the development of the [eleven] official languages, and respect for all languages used in the country" (Bengu, 1997). The government's education policy conceives language as an integral and necessary aspect of its strategy of building a non-racial nation in South Africa. It is meant to facilitate communication across the barriers of colour, language and region, while simultaneously creating an environment in which respect for languages other than one's own would be encouraged (Kamwangamalu, 1997:239). In Chapter 2 of the South African Schools Act (RSA 1996b:8), it is stipulated that the Minister may, by notice in the Government Gazette, after consultation with the Council of Education Ministers, determine norms and standards for language policy in public schools. It furthermore states that the governing body of a public school may determine the language policy of the school subject to the Constitution, this Act and any applicable provincial law and that no form of racial discrimination may be practised in implementing policy determined under this section.

The main aims of the Ministry of Education's policy for language in education are the following (SA, 1997):

- To promote full participation in society and the economy through equitable and meaningful access to education;

- to pursue the language policy most supportive of general conceptual growth amongst learners, and hence to establish additive multilingualism as an approach to language in education;
- to promote and develop all the official languages;
- to support the teaching and learning of all other languages required by learners or used by communities in South Africa, including languages used for religious purposes, languages that are important for international trade and communication, and South African Sign Language, as well as Alternative and Augmentative Communication;
- to counter disadvantages resulting from different kinds of mismatches between home languages and languages of learning and teaching; and
- to develop programmes for the redress of previously disadvantaged languages.

There is a close link between democracy and language rights (Beukes, 2004:48; Bosch, 1996:4-5). Skutnabb-Kangas' (1988:36) formulation of children's linguistic human rights shows a profound awareness of the intrinsic value of language in the life of the individual (in Beukes, 2004:97). Every child should have the right to identify positively with his/her original home language(s) and have his/her identification accepted and respected by others; Every child should have the right to learn the mother-tongue fully and every child should have the right to choose when he/she wants the home language(s) in all official situations (Skutnabb-Kangas, 1988).

Barry (2002:105) argues that the Language-in-Education policy and other additive bilingual initiatives have failed to address educational equity in South African schools and that despite the aspirations of politicians to move towards a policy of multiculturalism through the additive approach to bilingualism in education, this policy remains a symbolic gesture.

Findings from Barry's research indicate that the following factors in the language-in-education arena remain a major influence on education and training in South Africa since 1994 (Barry, 2002:112):

- The equal recognition of eleven official languages in South Africa does not automatically translate into equal status for all eleven languages. The official recognition of English as the language of the government confirms the power and value attached to English as the lingua franca at government level.
- Many Black learners continue to associate English with social, educational and employment opportunities and therefore, choose it as the language of instruction.
- There is a need for implementation of the Language-in-Education policy to be rooted to realities on the ground.
- In spite of the government's policy of multilingualism and additive bilingualism, English and Afrikaans remain the only two languages used for the Senior Certificate Examinations.
- Learners have not acquired the cognitive academic language proficiency to describe or explain subject-related concepts across the curriculum. Learners have also not mastered the necessary cognitive language and reading skills to critically evaluate scientific or technical texts to master content across the different learning areas.
- Most African language syllabi focus on grammar and, as a result, learners are not exposed to English forms that relate to meaningful use in communicative contexts and much of the input they receive, could be termed functionally restricted.
- Demography and language variance has serious implications for multilingual education in South Africa.

- Multilingual classrooms create a new set of problems for EFL teachers who have not been trained in the teaching of English as a second language.
- The lack of learning material at all levels of the education system and the lack of resources to fund the development of learning materials in the eleven official languages entrench English as the language of learning across the curriculum.

Beukes (2004:14) states that the implementation of the language policy has delivered the following outcomes in the first decade of democracy:

- Language domination with no delivery in respect of language equity for the indigenous official languages.
- Inequality of opportunity as regards access to government services, knowledge and information,
- The marginalisation of the indigenous languages and (arguably also increasing marginalisation of Afrikaans).

Despite a growing awareness that mother-tongue education is more effective than bilingual or second language medium of instruction, English as a second language has become the dominant medium of instruction in Southern Africa (Uys, Van der Walt, Van de Berg & Botha, 2007:69). Although teachers of English play a crucial role in helping learners to acquire language skills in the medium of instruction, Uys argues that subject content teachers' lack of attention to the teaching of the four language skills, may be a reason for learners' lack of academic achievement (Uys et al, 2007:70).

2.4.4 The promotion of proficiency in the current languages of instruction

The present language policy for higher education was finalised and published in 2002. According to Foley (2004:57) the policy holds some unforeseen complexities involved in its implementation. The dilemma, which is at the heart of higher education in South Africa today, is essentially linguistic in

nature. At the moment, English, and to a lesser extent Afrikaans, are the only languages capable of functioning fully as languages of learning and teaching at higher education institutions; yet many, perhaps most, potential higher education students are not sufficiently fluent in English and/or Afrikaans to be able to study effectively through these languages (Foley, 2004:58).

One of the most unfortunate aspects of the Language policy for higher education, is that it constructs the use of English in higher education as a problem rather than an extremely valuable national resource. The language policy document does not recognise the immense usefulness of having not just an international language, but the global language of the twenty-first century, as a medium of learning and teaching in higher education. Instead, its single focus rests on how English (and Afrikaans) should 'not serve as a barrier to access and success' (Ministry of Education, 2002:5). While it is indisputable that not all students are sufficiently fluent in English to succeed in tertiary study, to ignore bluntly and willfully the value of English as a vital national asset is to present a radically incomplete and distorted picture of the local linguistic landscape (Foley, 2004:63).

Most, if not all tertiary institutions, have put programmes in place to address academic literacy development. There are, however, a number of limitations to such programmes which render them less than ideal in resolving the problems attendant upon students' lack of proficiency in English (Foley, 2004:64).

Firstly, such programmes do not address the issue of students falling below minimum entrance requirements because of linguistic deficiency. The success rate of these programmes proved to be frequently low. Students often find these programmes, over and above the normal curricular demands, to be too onerous and, therefore, even counter-productive. The harsh lesson revealed by such programmes, is that the task of improving students' language proficiency to academically acceptable standards is a long, arduous process (Foley, 2004:64).

The real solution to the problem, according to Foley (2004:64), lies with the South African schooling system. Rather than vaguely encouraging higher education institutions to offer last-minute intervention strategies, the Ministry and Department of Education should be directing massive amounts of energy and expertise to improving proficiency in English at all levels of the schooling system, so that by the time learners matriculate, they have a sufficient ability in English to succeed (Foley, 2004:64).

Foley (2004:64) concludes by saying that multilingualism must be promoted and the other South African languages must be researched and developed, but it is equally important that an intensive, nation-wide campaign be launched to make all South Africans proficient in English (in addition to whatever other languages they speak).

2.5 THE DISCREPANCY BETWEEN POLICY AND PRACTICE

The reason, according to Foley (2004:57), why the much anticipated language policy for higher education has been so keenly anticipated, lies in the need to address a vital dilemma at the heart of higher education in South Africa today, a dilemma, moreover, which is essentially linguistic in nature. The dilemma is, at this moment, that English, and to a lesser extent Afrikaans, are the only languages capable of functioning fully as languages of learning and teaching at higher education institutions, yet many, perhaps most, potential higher education students are not sufficiently fluent in English and/or Afrikaans to be able to study effectively through these languages (Foley, 2004:57).

The language policy for higher education document is to be commended, in the first instance, for recognizing this dilemma and for articulating it so plainly. Paragraph 5 of the document spells out the problem: "Language has been and continues to be a barrier to access and success in higher education; both in the sense that Afrikaans and other languages have not been developed as academic/scientific languages and in so far as the majority of students entering higher education are not fully proficient in English and Afrikaans" (South Africa, 1997:4 – 5).

The document then goes on to delineate the 'challenge' with which language policy-makers are confronted: "The challenge facing higher education is to ensure the simultaneous development of a multilingual environment in which all our languages are developed as academic/scientific languages, while at the same time ensuring that the existing languages of instruction do not serve as a barrier to access and success" (South Africa, 1997, 2002:5).

The policy document thus outlines two rather different potential solutions which it somewhat tautologically contends, must happen 'simultaneously' and at the 'same time'. The first is to develop South Africa's African languages as academic/scientific languages for use in instruction at higher education institutions. The second is to develop students' proficiency in English (and Afrikaans) (Foley, 2004:58).

Biseth (2005:3) says that the Language in Education Policy explicitly claims that "...being multilingual should be a defining characteristic of being South African" (South Africa, 1997:1). The Department's approach to meet this goal, is found along the path of additive bilingualism. From Grade 3 onwards all learners are offered an additional approved language as a subject and later a third language if desired. The aim of this policy is to promote bi- or multilingualism and to redress the neglect of the historically disadvantaged languages in school education. The Revised Curriculum 2005 (Alexander, 1997:5) recommends that the learner's home language should be used for learning and teaching wherever possible, which is concurrent with the Constitution, the Language in Education Policy and other official documents. However, where there is a plan for a change in language of instruction from mother-tongue to an additional language, the Revised Curriculum 2005 advises that the additional language should be taught as a subject from Grade 1. Without giving any explicit explanation, however, the Department of Education states as follows: "The curriculum provides strong support for those learners who will use their first additional language as a language of learning and teaching". Consequently they send a double-sided message when they recommend the home language should be the language of

instruction while also giving strong support for those who want to use the first additional language as the language of instruction (Biseth, 2005:4).

Language planning experts and language stakeholders alike are increasingly arguing that recent language practice in South Africa has been decidedly retrogressive in nature (Kamwangamalu 2000:15; Alexander 2000:23; Heugh 2003:55 & Beukes, 2004:11), while the Sunday Times (25 April 2004) states, that the new democracy's "lofty pronouncements made in the early days of transition" (Beukes, 2004:14) in respect of indigenous languages, have been cast to the wind. The slow and somewhat fragmented implementation of policy has delivered the following outcomes in the first decade of democracy (Beukes, 2004: 14 – 15):

- Language domination with no delivery in respect of language equity for the indigenous official languages.
- Inequality of opportunity as regards access to government services, knowledge and information,
- The marginalisation of the indigenous languages and (arguable also increasing marginalisation of Afrikaans).

Mwaniki (2004:88–89) supports the stronger criticism of Alexander, Du Plessis and Kamwangamalu, who hit at political impotence when they say that lack of political will and political support on the part of the new South African government has been cited as one of the reasons for the non-implementation of the multilingual language policy and plan as envisioned in the Constitution, and also that the failure of South Africa's political actors to lend political support for the implementation of a multilingual language policy and language plan contradicts the ethos that informed their negotiating of the 1996 Constitution. The concept of the realization of a constitutionally envisaged multilingualism, therefore, seems unwillingness towards implementing it (Mwaniki, 2004:90).

Foley (2004:54) refers to a mismatch between official policy and actual practice, between the theoretical ideal of a fully multilingual mother-tongue

education system and material reality of one dominated by a single language. Fact is, that the South African education system purports to be multilingual, but that most educational systems fail to use the learners' mother-tongues as languages of learning and teaching.

Foley (2004: 55) says that the implementation of a fully multilingual education system does not simply mean offering the indigenous languages as subjects, nor does it mean tolerating code-switching in the classroom. Rather, it means developing each of the nine indigenous South African languages to the point where it could function, like English and Afrikaans, as fully-fledged languages of learning and teaching. There are, though, various problems in the way of developing a fully multilingual education system. Foley (2004:55–56) summarises these as follows:

- The almost non-existence of regulisation and modernisation in respect of the standardisation and codification of all indigenous languages.
- A lack of technical, technological and scientific vocabulary of these languages.
- Large dialectical deviations between the putative standard form of the languages and the actual varieties used by people in different regions.
- The often unavailability of dictionaries, grammars, translations, textbooks and the sundry other materials necessary for the development of the languages as languages of learning and teaching.

Foley (2004:56) also speaks about no real political will and no real enthusiasm of those parents and learners for whom educating through the mother-tongue would benefit.

2.5.1 Evaluation of the language in planning process in South Africa

In order to provide a fair evaluation of language planning in SA, one must take the following specific background issues into consideration (Webb, 2001:12):

- The legacy of “apartheid”, which led to distrust among racial groups and to the stigmatisation of Bantu languages as well as concepts such as *ethnicity*, *mother-tongue* and even the notion of *medium of instruction*.
- The enormous problems of national concern which the government has to handle, such as job creation; poor economic performance; health; housing; the land issue.
- The restrictive effect of global economic and political forces on the promotion of the indigenous languages.
- Language planning and language policy implementation are long-term processes, and language political transformation and reconstruction, such as is envisaged in South Africa, are extremely difficult to effect.
- The lack of empirical research findings, especially concerning the indigenous languages, through audits/surveys.

Although the country (government) has only been seriously engaged in implementing a policy of pluralism for a period of seven years, there are several quite positive signs (Webb, 2001:13):

- Reasonable progress in the establishment of the legal infra-structure for language planning.
- Strong public support by key cabinet ministers, as well as from important decision-makers in sectors such as the public broadcaster and the Department of Education.
- The willingness of government to involve language planning experts in language planning, as well as scholarly participation in language policy workshops and conferences.
- The possible emergence of ethno-linguistic awareness.

There are also, however, negative signs (Webb, 2001:14):

- Increasing institutional monolingualism.

- Too little effective language planning research and the absence of any co-ordination of existing research projects.
- Too little effective support for linguistic pluralism from important decision-makers at senior levels of government.
- Continued emotional resistance to the Bantu languages.
- The lack of public support among public leaders generally for the language policy.

Bostock (1999:5) concludes by saying that the survival of languages is important to the survival of communities and to the State, but everything cannot be left to the state. Charity begins at home. Unless a community makes a deliberate effort to maintain and promote its own languages, the chances are that the language will face attrition and death (Kamwangamalu, 1998:122).

2.6 PARENT AND LEARNER CHOICE IN RESPECT OF MEDIUM OF INSTRUCTION

The South African Language in Education Policy stipulates the right of the individual to choose which language(s) to study and to use as languages of learning (i.e. the medium of instruction), (Moyo, 2000:98). What the policy refers to, is the learners' choice of their instructional language(s) in early education, or to be more precise, their parents' choices of these languages. A barrier is the fact that teachers do not have adequate competencies to allow them to teach confidently and effectively in the learners' choice of language(s).

Foley (2004:53) refers to the Language in Education Policy which recommends that the learner's home language be used for learning and teaching, wherever possible. The National Curriculum Statement also affirms the school language policy of additive multilingualism. The Language Policy for Higher Education, similarly, asserts that its framework is designed to promote multilingualism and to enhance equity and access in higher

education through, inter alia, the development of South African languages as media of instruction in higher education, alongside English and Afrikaans (Ministry of Education, 2002:15).

The overall response of the majority of Black South Africans to multilingualism in the new South Africa, is the acceptance of English as language of Learning and Teaching (EloLT) and the rejection of L1 as medium of instruction in schools. Black parents or caregivers usually make the decision on medium of instruction for their children on preschool and primary school levels. During the later school years, teachers and learners are often included as additional decision makers. On tertiary level, however, students have to accept the language policy of EloLT for higher education followed by the South African government (Du Plessis, 2006:31).

Parents have, over the years, opposed mother-tongue instruction. Since the 1950s this was because of its association with “apartheid”. Mother-tongue policy was “seen as a strategy by the government to prevent African upward mobility and thereby to ensure a perpetual reservoir of cheap labour” (NEPI 1992:29). But it was also because of the low status of African languages and the obvious social and economic benefits of being fluent in English. For these parents, according to Vinjevold (1999:10), English is not seen as a language but as a resource. Delaying acquisition of this resource, is incomprehensible to parents.

Olivier (2006:4) asserts that the medium of instruction choice is quite a contentious issue, as parents want their children to rather study in English than in their own home languages. Possible reasons for their preference are (Olivier, 2006:4):

- to ensure a successful financial and social future: parents may think it necessary for pupils to know an international language such as English;
- parents may believe that the job market demands knowledge of English;
- studies cannot be completed at secondary and tertiary levels in African languages;

- schools where African languages are used as media of instruction might not have the same resources and expertise, due to injustices and policies of the past; and
- schools (formerly advantaged or disadvantaged) might not have the infrastructure or even motivation to accommodate more languages.

Verhoef (1998:14) clearly states that the decision of school authorities and parents to use English as the language of learning in schools has definitely contributed to the underdevelopment of the South African people. One of the tasks that language people in South Africa need to undertake, is to persuade parents that the answer to their needs and those of their children lies in the language of learning that their children know well, together with high-quality teaching of English as a subject.

Kamwangamalu (2000:121) points out that English and Afrikaans remain central to the country's government and administration. Of the two, however, English is the most powerful language in the country. English is used in all high domains, for example, the government and administration, education, economy and diplomacy. English serves as the lingua franca in inter-ethnic communication; it is the language of the elite, power, and privilege; and it is seen by many as a means by which one can achieve unlimited vertical social mobility. Afrikaans is also relatively prominent in some of the high domains, but in terms of political power and as a result of the demise of "apartheid", it plays second fiddle to English. The African languages remain on the margins of power and are used mainly as vehicles for transmission of cultural heritage from generation to generation, much as they were in the "apartheid" area (Kamwangamalu, 2000:121).

Despite what the new language policy says, the failure to implement the policy has compelled the Black population at large to question the instrumental value of their languages. As Msimang (1993:38) notes, this has had the pathetic consequence that most Black people have come to hate their own languages and consider them irrelevant in the education process. They adopt the attitude that mother-tongue education is not important because, unlike

English- and Afrikaans-medium education, it does not pay off in terms of economic viability. In the absence of this viability, the stigma associated with mother-tongue education in African languages lingers on and has, consequently, impeded efforts to promote African languages as media of learning and teaching.

English in South Africa has come to be seen by many people as the language of power even though there are eleven official languages (Lemmer, 2002:18). Inglis and Thomson (2000:4) support the fact that people who are fluent in English and who use English effectively and appropriately in social, political and education contexts, are often considered more powerful than those who can't. For this reason, many non-mother-tongue speakers of English strive to learn to speak English even though they face many difficulties doing so. They also prefer to be taught in English even if they have limited proficiency in the language.

Dlamini (1998) stresses that the issue of mother-tongue instruction for Black learners in South Africa is "a sensitive and complex one". The "thorny question" he considers, is the choice by the majority of Black South African students to use English, the second or third language, as the medium of instruction, even though there is "scientific evidence that mother-tongue instruction is recommended". The reason he gives for this choice, is that English is considered the language of the economy and industry. In his article, Dlamini touches on the heart of the sociolinguistic dilemma facing most Black South African students. They choose to be instructed in English even though this places them at a linguistic disadvantage because it is the discourse of economic and industrial dominance. This choice is thus motivated by economic and ideological, rather than linguistic, reasons.

Sarinjeive (1999:129) says that English is institutionally taken to be the panacea to solve all perceived language problems and the means by which to achieve all the goals of "daily living". All attention is, therefore, focused on English to the detriment of the mother-tongues. And yet the results, as indicated in citations above, are failure and massive waste in terms of cost-

effectiveness, efficiency and intellectual, social and economic investment and development.

The battle to repositioning and redefining South Africa's languages seems far from won 12 years into our democracy. According to Makgotho (Sowetan, 17 March 2006), most Black South Africans are still convinced that the best way to educate their children, is to teach them in English and not their mother-tongue. Some members of the Black elite still consider African languages to be inferior to English and other European languages.

2.7 MEDIUM OF INSTRUCTION AND LEARNING

There is sufficient evidence these days to show that mother-tongue tuition in the early years of school is essential for full cognitive development. Our mother-tongues and cultures, in short, are our passports to reaching our full potential. We therefore allow human diversity to wither at our collective peril (Vermeulen, 2000:12).

Vermeulen (2000:12) says that although mother-tongue education is an accepted pedagogic principle all over the globe, language in education policies in South Africa have been so politicised since the early 1800s that educational and linguistic arguments are often ousted from their valid and conclusive positions in the debate. According to Rossouw (1999:100) and Chick (1992:275) the advantages of primary language teaching were, in the minds of the Black community, overshadowed by the perception that educational motives were secondary to political ones.

In White Paper 5 (SA, 2001), it is acknowledged that the early years of a child's life are critical for the acquisition of language. Viljoen and Molefe (2001:125) share the opinion that learners who are proficient in L1 will acquire English as L2 more readily and be more proficient in English than learners with poor language skills in L1.

Other research findings indicate that students are more successful in acquiring second language literacy if they have already mastered strategies for negotiating meaning in print in their first language (Collier, 1987:631 – 636;

Soter, 1990:232). Research carried out in the Molteno project, based at the Rhodes University, stated that the mother-tongue needs to be promoted, not just for itself but for the language experience and knowledge that would carry over into the acquisition of English language skills. In other words, the mother-tongue and culture need to be promoted in order to advance the English language. It was found, for instance, in the Molteno project that "Black children were failing to master English reading because they had failed to acquire basic reading skills in their mother-tongue" (Schneider, 1998:8).

According to Moyo (2000:101), educational psychologists and linguists agree that the use of the mother-tongues is beneficial for the learner's cognitive development. At a pedagogical level the use of a first language as a medium of instruction also facilitates the acquisition of linguistic skills, concepts, vocabulary and content in various disciplines encountered for the first time, as the language of learning is familiar to the learner. The learner has thus the necessary language skills to read content subjects with comprehension. When the learner shifts from the L1 to the L2 as a medium of instruction in the latter part at primary school level, the notion of transfer is considerably well facilitated from one language to the other.

Snayers and Du Plessis (2006:51) aver that L1 instruction is an essential component ensuring successful bilingual education in South Africa, and recommend that the need to redirect the current debate on language in schools should be recognised. The present language in education policy strongly champions bilingual training in which the mother-tongue plays a dominant role. Research has shown that where the mother-tongue is the dominant instructional medium, supported by an L2, best educational results are obtained. Webb (2001:2) asserts that serious consideration should be given to the use of learners' first languages, in particular African languages, as languages of education and training. First language competence at a high level is essential to effectively develop superior skills such as negotiating meaning, managing information, identifying and analysing problems and formulating solutions.

Mlotshwa (2005:15) asserts that acquiring a second language is important, but not at the expense of the home language. Instead, the first language should be built upon through a process of additive bilingualism. In South Africa's educational system, learners whose L1 is not English, generally struggle to cope in class. They may battle to come to terms with aspects inherent in a language that contains a universe of meaning and action that is foreign to their own personal experience. He furthermore states that those who are able to learn through their first language throughout their school years are at a decided advantage. Learners therefore, need to be offered options for and encouragement to aspire to progress through their schooling into higher education through the medium of their own languages, while at the same time providing access in and effective acquisition of additional languages such as English (Finlayson, 2002:3). Mlotshwa (2005:26 – 27) argues that the first language could be used as a stepping-stone. Once the mechanics of reading and writing have been acquired in the L1, the learners are expected to use their newfound knowledge in support of learning an L2. The problems of using the L2 as a medium of instruction will then be solved.

If English is dominant in all spheres (Kajee, 2001:41), the essence of multilingualism as ensconced in the Constitution is lost. Kamwangamalu (2000:50) refers to the trend as *new language policy, old language practices* and cites the examples where, since 1994, there have not been cases reported of Black students wanting an African language as a medium of instruction, although there have been cases reported of Black students wanting an English medium of instruction in Afrikaans medium schools. Tertiary students adhere to the trend, as do many Black parents who equate mother-tongue instruction with suspicion, because of its association with an inferior standard of education, one of the many legacies of apartheid.

Webb (2001:234) states that there are many reasons why the National Department of Education should pay serious attention to the medium-of-instruction issue. Besides poor educational development generally, and inadequate English proficiency specifically, there is general agreement among sociolinguists and educational linguists that the use for educational purposes

of a language that is not known adequately constitutes a barrier to educational development, and could even lead to a form of culture shock for entrance-level learners. As Caesar (2001:136)) argues, using a language that learners know insufficiently well as medium of instruction, can lead to a form of anxiety accompanied by the loss of generally acceptable signs and symbols for social interaction.

Furthermore, many educational linguists believe that the use of an L2 as medium of instruction can be effective only in contexts where conceptual skills in the home language have already been developed; where the home language is widely used in the community, and where it has acquired higher social and economic value than the L2. Where L1 literacy skills have not been meaningfully developed and where the home language has a lower social and economic value than the L2, as in South Africa, the use of an L2 as medium of instruction, is not advisable.

Research has shown that instruction through the child's mother-tongue can be beneficial for academic performance, even for their performance in English. The proficiency of the medium of instruction is developed over many years and will take even longer to acquire competence in a second language. Learners' academic achievement correlates with the recognition of the value of their mother-tongue languages as media of instruction. The use of their mother-tongue as a medium of instruction leads eventually to equal social status and respect between the different language groups.

The research project LOITASA (Language of instruction in Tanzania and South Africa), shows how well African students express themselves if they are allowed to use a familiar African language, and conversely, the difficulties they have when forced to use a foreign language, a language they hardly hear and never use outside of school, as a language of instruction (Brock-Utne & Holmasdottir, 2007:509).

In their Ph.D. theses which were undertaken under the umbrella of the LOITASA project, Mwinsheikhe (2007) and Vuzo (2007) explored the difference in learning results and classroom interaction between secondary

school classes taught in English. In both schools both Mwinsheikhe (2007) and Vuzo (2007) found that students scored best on achievement tests when they had been taught in Kiswahili and worst, when they had been taught in English only (Brock-Utne & Holmasdottir, 2007:522).

The findings reported, show clearly that students learn better when they can use a familiar language as the language for acquiring new knowledge. The findings reported also show that the use of a language of instruction which is unfamiliar to most students is a recipe for increased inequality. It may benefit a very small group of students who have well-to-do parents who take them to English-speaking countries, have English-speaking guests and a lot of books, videos and games for their children in English (Brock-Utne & Holmasdottir, 2007:526).

2.8 CONCLUSION

This chapter described the distribution of languages in South Africa. An overview of policy regarding the medium of instruction was then given, after which the promotion of proficiency in the current languages of instruction was discussed. The discrepancy between policy and practice was then reviewed. In the following section, parent and learner choice in respect of medium of instruction was discussed. Lastly, the effect of the medium of instruction on the learning process, was discussed.

In the next chapter the influence of L2 instruction on the academic performance of L1 learners will be investigated.

CHAPTER THREE

THE INFLUENCE OF L2 INSTRUCTION ON THE ACADEMIC PERFORMANCE OF L1 LEARNERS

3.1 INTRODUCTION

In the previous chapter the language realities of South Africa were investigated. An overview was also given of policy regarding the medium of instruction after which discrepancies between policy and practice were then reviewed.

This chapter deals with the influence of L2 instruction on the academic performance of L1 learners. In order to understand the complexity of L2 instruction, it is essential to understand the context of second language learning.

3.2 A BACKGROUND TO SECOND LANGUAGE LEARNING

Learning a second or foreign language is neither a quick nor an easy task. Given that we can never be fully proficient in our own mother-tongue, it is safe to assume that learning another language could well become a task involving life-long learning (Yates, 2000:1).

Different people achieve different degrees of proficiency in different languages and these individuals do this with different degrees of difficulty. In South African schools, most learners learn English Second Language (ESL) as a school subject, while they also use it as the language of teaching and learning (Van der Walt & Dreyer, 1995:306). Therefore, their English proficiency is essential for their general academic success, career prospects and choice and successful adaptation to the demands of a multilingual society.

The South African Constitution (SA, 1996: Art, 29) and the South African Schools Act (SA, 1996: Art.6), acknowledge the right of all learners to receive education in the official language or languages of their choice in public educational institutions where this is reasonably practicable. In accordance

with the Constitution and the Schools Act, the Department of Education's Language in Education Policy (South Africa, 1997:1–2) and the Working Group on Values in Education (James, 2002:8–10) aim to promote multilingualism and the development of the official languages and to pursue the language policy most supportive of general conceptual growth amongst learners (De Wet, 2002:119).

According to research findings (Kotze, 2000:1-5; Smuts, 2000:1-5; Vermeulen, 2000:265; Sarinjeive, 1999:130; De Witt, Lessing & Decker, 1998:119), the home language is the most appropriate medium for imparting skills of reading and writing, particularly in the initial years of schooling. In a research project undertaken during 2000 by the Pan South African Language Board (PANSALB) (De Wet, 2002:120), 90% of the participants indicated that they were in favour of home language education. Despite the aforementioned research findings and support for home language as language of learning and teaching (LoLT), the majority of South Africans opted for English and not their home language as LoLT after the first four years of schooling (NEPI, 1992:13; Webb, 1999:69-70).

The acquisition of knowledge and the development of cognitive, affective and social skills occur primarily through the linguistic communication process (between learner, educator and learning materials). This linguistic communication is a high-level process presupposing abstract, objective and symbolic thought. Therefore, considerable language proficiency is required if learners are to realize their individual potential fully. Webb (2001:1) says, that first and second languages (L1 and L2) constitute important subjects in the education system, and their importance is growing in a globalizing, yet diverse world, with increasing strategic importance placed on communication abilities.

First-language competence at a high level is essential to effectively develop superior skills such as negotiating meaning, managing information, identifying and analyzing problems and formulating solutions. Second-language proficiency, particularly in English, is an essential instrument for occupational success, inter-community relations and effective political participation. Although English is the mother-tongue (L1) of only 8, 6% of the South African

population (De Klerk, 2002:3), and the larger part of the school population represents language backgrounds other than English, it nevertheless is increasingly dominant in education (Lemmer, 1995:83). In many South African classrooms, English is the L1 of neither the learner nor the teacher (Bosman, 2000:221).

The poor proficiency in English of Black learners is an area of great concern to educators. Some believe that the learners' command of English is totally inadequate for them to deliver results and that Black learners often fail school examinations purely because of this (Bosman, 2000:225; Roseberry-McKibbin & Brice, 2000:5).

Even on tertiary level, the students' academic performance is influenced by their poor command of English. Sarinjeive (1999:132) conducted a study on the popularity of English among students despite their poor academic performance in English. Alarming results indicated that Black students at a South African university in their third year still struggled to master English and were unable to formulate even simple coherent sentences in English. Linguistic inadequacies, therefore, often limit the Black learners' opportunities to higher education. Since language is such a crucial means by which to gain access to higher levels of knowledge and skills (Lemmer & Squelch, 1993:41), proficiency in English should already be addressed as early as the preschool level and should not be postponed until tertiary education centres have to intervene (Cele, 2001:189).

The disturbing phenomenon of under-performance indicated by high failure rates at many South African universities is a major concern not only for academic development practitioners, but also for the process of transformation that is currently taking place within higher education (Miller, 1998:167).

According to October (2002:15), many factors may play a role in determining a learner's level of academic success, although recent theory in the field suggests, that language medium could be a deciding factor in whether a learner performs well or poorly academically. Young (1995:66) expresses the

same concerns in his thesis about the English Second Language learner, by saying that English "...is in high demand as a language for learning in schooling throughout South Africa". According to Vinjevold (1999), this is because many parents want English language instruction from as early as possible. Parents have, over the years, opposed mother-tongue instruction. Since the 1950s, this was because of its association with apartheid. Mother-tongue policy was "...seen as a strategy by the government to prevent African upward mobility and thereby to ensure a perpetual reservoir of cheap labour" (NEPI, 1992:29). But it was also because of the low status of African languages and the obvious social and economic benefits of being fluent in English. According to Sarinjeive (1999:136), the desire for English is fuelled in some Black students by a deep-seated resistance to L1 education. The L1 is stigmatized as inferior and associated with an inferior apartheid education and limited employment opportunities, as documented by history (Sarinjeive, 1999:136).

Those studying it as a first or second language, spend up to 12 years learning it as a medium of instruction for at least eight of these years, in the case of second language learners. Why, then, do we have the demonstrably low levels of proficiency displayed by most ESL learners after such lengthy school exposure to English? Poor or under-qualified teaching? Ineffective language teacher training? Low learner motivation? Poor resources? Overcrowded classrooms? All of these are popular suggested explanations for the problem, yet none may tap deeply enough into its roots. One possible explanation might be found in an increasing body of research in the USA and Canada over the past 15 years, particularly that of Skutnabb-Kangas (1988:35) and Cummins (1999: 115). They have theorized and produced some, albeit limited, supporting empirical evidence that there is a direct relationship between first-language acquisition and learning beyond and inside the classroom and parallel, second-language learning in the classroom.

The aim of this study is to determine whether English as medium of instruction influences academic performance, thereby linking poor academic

performance to theory on language proficiency development and cognition- specifically those theories proposed by Cummins (1999: 118).

Seldom do children learn a second or multiple languages under the natural and unstructured conditions similar to the conditions of first language acquisition. Most children acquire a second language at an older age, within the formal classroom, in a group and in a more mechanical manner (Baker, 1996:50). Although there are several different theories of second-language acquisition, based on a variety of research from different perspectives, certain universal characteristics of the process of second language acquisition can be identified.

3.3 THE LANGUAGE ACQUISITION PROCESS

Languages are powerful resources available to speaking individuals (Tollefson, 2002: 12). The following overview sheds light on the language acquisition process.

3.3.1 Language acquisition, learning and teaching theories

A very much simplified overview of a highly complex subject area, language acquisition, second language acquisition (SLA) and second language (L2) teaching is given here. This overview will hopefully provide some insight into the basic problems of language learning. Although there have been several theories about how language is acquired, two that are most widely accepted: Skinner's behavioural theory and Chomsky's Universal Grammar. In Behavioural theory child language is acquired by means of the caregiver (mother, grandmother, etc.) correcting or reinforcing the language produced by the child. In other words, a child might imitate an utterance made by an adult and the child's utterance will either be reinforced by a positive response or corrected. This constant imitation, correction and reinforcement will shape the development of the child's language (Owens, 1992: 27 – 33).

Chomsky (1986:75) on the other hand tried to explain language as a problem of the mind rather than as verbal behaviour, as Skinner had done. Behavioural theory can not account for the fact that children can create

completely novel utterances that they had never experienced as part of their language input. Chomsky viewed verbal behaviour as *performance*. Chomsky distinguishes *competence* from *performance*. *Competence* is the speaker/hearer's knowledge of their language and *performance* is their actual use of that language (Cook, 1988:14, Cook & Newson 1996:22). Chomsky is concerned with how language knowledge is presented in the mind and claims that all humans are genetically endowed with the innate ability to acquire language – any language. This innate ability to acquire any language forms the basis of the theory of Universal Grammar (UG), which "...assumes that language consists of a set of abstract principles that characterize core grammars of all natural languages" (Gass & Selinker, 1994:121). In response to the language heard around them, children start to acquire that particular language and apply UG principles and the particular instantiations of UG in that language (Cook, 1988:57).

Although UG may seem to account for how children can acquire such a complex system as their mother-tongue by a very early age, problems arise however, when we start to consider adult learners of a second or foreign language (L2). (The terms *second language* and *foreign language* are used interchangeably here to denote any other language that a person may learn after having acquired their mother-tongue). Ellis (1985:107) speaks of *the critical period hypothesis*, which states that there is a period (below the age of ten) during which time "language acquisition takes place naturally and effortlessly". The speech of a learner of an L2 beyond this critical age, however, is characterized by grammatical and pronunciation peculiarities. The imperfect language produced by L2 learners and the difficulty experienced by them in learning these L2s influenced research into a popular branch of linguistics, second language acquisition (SLA), which is discussed next.

3.3.2 Second language acquisition (SLA)

Much of L2 learning takes place in the context of formal instruction. Debates around the role of formal instruction in SLA are commonplace. Ellis (1985:229 – 245) advances three positions taken on formal instruction in the SLA

context: the *non-interface position*, the *interface position* and the *variability position*. In the *non-interface position*, Ellis cites Krashen (1982), who identifies two kinds of knowledge in SLA, *acquisition* and *learning*, and claims that these two kinds of knowledge are separate. He argues that *learning*, which is metalinguistic knowledge, cannot be converted into *acquired* knowledge, which is the kind of knowledge that develops naturally and subconsciously. In the *interface position*, two knowledge types are also recognized (i.e., acquisition and learning) but that “seepage from one knowledge type to the other occurs” (Ellis, 1985:234). With this view, learning can act as a facilitator of acquisition. In the *variability position*, SLA experts recognize that different learners vary in their competence in the L2 and that the “...kind of language use that the learner engages in, determines the kind of knowledge that he acquires” (Ellis, 1985: 237 – 238). In other words, if learners want to improve their natural speaking, they should participate in learning activities that emphasize spoken communication.

There are a number of factors that influence L2 learning: some of them relate to cognition, or the way that our brain perceives and understands our environment, while others relate to our emotions, which are considered affective factors. A useful distinction is made by Cummins (1981) in Ovando and Collier (1985:63–64) about one cognitive factor, intelligence. He distinguishes between cognitive/academic language ability (CALP) and basic interpersonal communication skills (BICS), which will be discussed in 3.4.3 of this chapter.

As a result of language acquisition and SLA theories, several L2 teaching approaches have arisen. Yates (2002:4 – 6) briefly outlines some of the major L2 teaching approaches in the next section.

3.3.3 Various approaches to second language teaching

3.3.3.1 The Grammar-Translation Approach

The Grammar-Translation Approach makes use of CALP to a high degree and is derived from the teaching of the classical languages, Latin and Greek. This approach is conducive to promoting ‘learning’ rather than ‘acquisition’, as

learners learn about the language and gain no practice in actually using it in real conversation. Obviously a reason why people do not practise speaking in the Latin context is because it is no longer a spoken language and can be classified as a 'dead language'. In the grammar-translation classroom, learners explicitly study the complex grammars of the L2 and all instruction takes place in their mother-tongue. A heavy emphasis is placed on translation from the L2 into the mother-tongue and vice versa. The primary focus is on the written word (Yates, 2002:25). The knowledge gained in this approach presents an interesting question: What does knowing a language entail? Can a person know a language without actually being able to speak it?

3.3.3.2 The Direct Approach

The Direct Approach resulted as a reaction to the Grammar-Translation Approach. In the Direct Approach all the instruction is given in the L2 while grammar is not explicitly taught. Speaking is taught first, followed by reading and writing. The associated culture of the L2 is considered as an important aspect of the L2 learning process. There is thus an emphasis on 'acquisition' in this approach. While this approach was popular in Europe where people had more opportunities to react with the L2 culture, it had less effect in North America where interaction with the L2 culture was less common (Yates, 2002:27).

3.3.3.3 The Reading Approach

The Reading Approach is similar to the Grammar-Translation Approach, because it places very little emphasis on speaking ability and also reveres translation skills. In the Reading Approach, the primary goal of learning the L2 is to gain reading comprehension. People who might benefit from this approach are scientists or politicians. In the Reading Approach, learners pay more attention to the development of vocabulary, as compared to the Grammar Translation Approach, which pays more attention to grammar. Yates (2002:4) says it is hard to say whether the Reading Approach develops 'acquisition' or 'learning', because linguists will first have to define whether acquisition applies only to speaking, or to other language abilities as well.

This is of course again begging the question: What does knowing a language entail?

3.3.3.4 Audio-Lingual Approach

The Audio-Lingual Method (ALM) arose as a reaction against the Reading Approach. The aim is to promote the development of speaking skills and is deeply-seated in behavioural theory. Learners are given dialogues in the L2 and are required to drill the language structures in those dialogues. Language learning for these learners thus becomes a process of habit formation and little emphasis is placed on initiating interaction. Four main language skills are stressed and are developed in the following order: listening, speaking, reading and writing (Yates, 2002:35).

3.3.3.5 The Communicative Approach

The Communicative Approach was influenced by Krashen's distinction between 'acquisition' and 'learning' (i.e., that languages can be effectively learned without a conscious study of the L2 grammar). The aim in this approach is to develop communicative competence. The teacher is viewed as a facilitator of learning and encourages the creative use of language without being overly indulged in correcting errors. The teacher encourages fluency and interaction with other people and also includes authentic material (such as newspaper clippings, forms, etc.) in the classroom.

3.3.3.6 The Constructivist Approach

In the Constructivist Approach teachers are also viewed as facilitators, as they are in communicative classrooms. In this approach, the needs of the learner are the primary needs in the classroom and learners decide the goals for themselves allowing a variety of individual learning styles and the development of different kinds of language competencies. For example, some learners may wish to improve specifically writing and thus be involved in learning activities that would improve their writing. The underlying thinking is that learners construct knowledge for themselves in a socially interactive environment (Hein, 1991). As a result of the interaction, learners develop

communicative competence. Assessment of learners' progress in this approach is usually based on the successful completion of tasks. This kind of learning can incorporate a wide range of language styles and genres, cross-cultural communication, and interaction with authentic material (such as TV, signposts, medical prescriptions, etc.). Depending on the tasks required of them, learners could develop both CALP and BICS.

3.4 THEORETICAL CONSIDERATIONS

Theories on SLA (Second Language Acquisition) which indicate that the language medium could be a deciding factor whether a learner does well or poorly academically, will now be considered.

3.4.1 Additive/subtractive bilingualism and the threshold theory

Baker (1996:108–114) identifies the following three periods across time in the dominant beliefs on bilingualism, and specifically, the link between bilingualism and intelligence since the early 19th Century:

- The period of detrimental effect
- The period of neutral effects
- The period of additive effects.

From the mid-1970s studies have consistently shown that the earlier notions of the 'detrimental' and 'neutral' effects of bilingualism on intelligence form part of a much more complex interaction between the two languages known by the individual. We have progressed to the point where we are able to identify different types of bilingualism (i.e. subtractive, transitional and additive), although this knowledge is more academic than common.

Lambert, cited in Baker (1996:57), views additive bilingualism as a situation '...where the addition of a second language and culture are unlikely to replace or displace the first language and culture', and subtractive bilingualism as a situation where '...the learning of a majority second language may undermine a person's minority first language and culture'. Following Lambert's distinction

between additive and subtractive bilingualism in the late 1970s, Toukomaa and Skutnabb-Kangas, and Cummins developed the 'threshold' theory (see Baker, 1996: 135 – 136). Cummins (1991:166) suggests that "... the level of proficiency attained by bilingual students in their two languages may be an important influence on their academic and intellectual development. Specifically, there may be a threshold level of proficiency in both languages which students must attain in order to avoid any negative academic consequences and a second, higher, threshold necessary to reap the linguistic and intellectual benefits of bilingualism and biliteracy".

The threshold theory has been supported by various studies (see Cummins, 1991: 163 – 166), perhaps the most relevant of which is the South African initiative, the Threshold Project. Luckett (1995:75 – 76) asserts, that recent South African research on the Threshold Project (Probyn, 1990), has shown that many Black learners suffer the ill effects of subtractive bilingualism, owing to a sudden change-over from a first to a second language medium of instruction in Grade 5 (standard 3). The project found, that learners could not explain in English what they already knew in their languages; nor could they transfer into their first languages the new knowledge that they had learnt through English.

The principal conclusion of this project was, that bilingual programs in which a language other than the students' mother-tongue is used before a certain age or a certain 'cognitive level' is achieved are not likely to be successful (Monoana, 2005:5).

3.4.2 The Interdependence Hypothesis: SUP and CUP

The interdependence hypothesis was formally expressed as follows (Cummins, 1991:29).

To the extent that instruction in L_x is effective in promoting proficiency in L_x, transfer of this proficiency to L_y will occur, provided there is adequate exposure to L_y (either at school or in the environment) and adequate motivation to learn L_y.

For the situation at the VUT, the interdependence hypothesis can be stated as follows:

To the extent that instruction in the learners' L1 was effective in promoting proficiency in L1, transfer of this proficiency to English Second Language will occur provided there is adequate exposure to English and adequate motivation to learn English.

To clarify our understanding of academic and linguistic transfer, we will quote, at length, a summary by Baker (1996:135) in which he explains how this model operates and subsequently describes the possible consequences for the bilingual learner if this facility remains un(der)- developed:

1. Irrespective of the language in which a person is operating, the thoughts that accompany talking, reading, writing and listening are generated from the same central engine. When a person owns two or more languages, there is one integrated source of thought.
2. Bilingualism and multilingualism are possible because people have the capacity to store easily two or more languages. People can also function in two or more languages with relative ease.
3. Information processing skills and educational attainment may be developed through two languages, as well as through one language. Cognitive functioning and school achievement may be fed through one monolingual channel, or equally successfully through well-developed language channels. Both channels feed the same central processor.
4. The language the learner is using in the classroom needs to be sufficiently well-developed to be able to process the cognitive challenges of the classroom.
5. Speaking, listening, reading or writing in the first or the second language, helps the whole cognitive system to develop. However, if children are made to operate in an insufficiently developed second language (e.g. in a 'submersion' classroom), the system will not function at its best. If

children are made to operate in the classroom in a poorly developed language, the quality and quantity of what they learn from complex curriculum materials and produce in oral and written form, may be relatively weak and impoverished. This has been the experience of some Finns in Swedish schools who were forced to operate in Swedish (Skutnabb-Kangas and Toukomaa, 1976). Such children tended to perform poorly in the curriculum in both Finnish and Swedish, because both languages were insufficiently developed to cope with given curriculum material.

6. When one or both languages are not functioning fully (e.g. because of unfavourable attitudes to learning through the second language, pressure to replace the home language with the majority language) cognitive functioning and academic performance may be negatively affected.

Cummins (2001:4) explains that, in concrete terms, what this principle means is that in, for example, a Turkish-English bilingual program intended for native speakers of Turkish, English instruction that develops English reading and writing skills is not just developing English skills, it is also developing a deeper conceptual and linguistic proficiency that is strongly related to the development of literacy in the majority language (Turkish). In other words, although the surface aspects (e.g. pronunciation, fluency, etc.) of different languages are clearly separate, there is an underlying cognitive/academic proficiency that is common across languages. This common underlying proficiency makes possible the transfer of cognitive/academic or literacy-related proficiency from one language to another.

The interdependence hypothesis (Cummins, 2001:6) is illustrated in Figures 3.1-3.2. Figure 3.1 (The Separate Underlying Proficiency [SUP] Model) attempts to illustrate an alternative proposal to the Interdependence Hypothesis (sometimes termed the *time-on-task* or *maximum exposure* hypothesis [Cummins, 2001]). If there is no transfer across languages and no underlying proficiency that links L1 and L2 (and L3 etc.), then language representations are stored separately in an individual's cognitive operating system. The SUP model implies that:

- proficiency in Lx is separate from proficiency in Ly; and
- there is a direct relationship between exposure to a language (in home or at school) and achievement in that language (time-on-task/maximum exposure hypothesis).

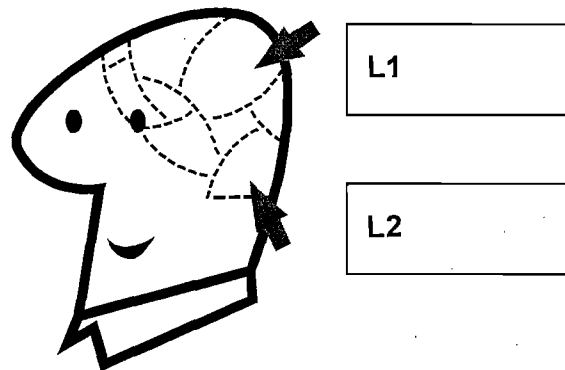
The second implication of the SUP model follows from the first: if Lx and Ly proficiency are separate, then content and skills learned through Lx cannot transfer to Ly and vice versa. In terms of the balloon metaphor illustrated in Figure 3.1, blowing into the L2 (or Lx) balloon will succeed in inflating L2 (or Lx) but not L1 (Ly). When bilingual education is approached with these “common-sense” assumptions about bilingual proficiency, it is not at all surprising that it appears illogical to argue that Ly proficiency can be effectively developed by means of instruction that is conducted through both Lx and Ly, or even primarily through Ly.

However, despite its intuitive appeal, the empirical evidence clearly refutes the SUP model by showing significant transfer of conceptual knowledge and skills across languages. In order to account for the research evidence, we must posit a *common underlying proficiency* (CUP) model in which various aspects of a bilingual's proficiency in L1 and L2 are seen as common or interdependent across languages? In other words, when applied to bilingual education contexts, the common underlying proficiency refers to the cognitive/academic knowledge and abilities that underlie academic performance in both languages.

October (2002:17) supports the latter, by saying that in order for a learner to use a second language as a language medium in the classroom successfully, the learner must have developed the first language, as well as the second language to a level where cognitive and linguistic skills can be transferred across languages effortlessly. This level of development in both languages can be reached only once the learner has progressed past ‘surface fluency’ to ‘cognitive fluency’ (i.e. an appropriate level of literacy for schooling) in those languages.

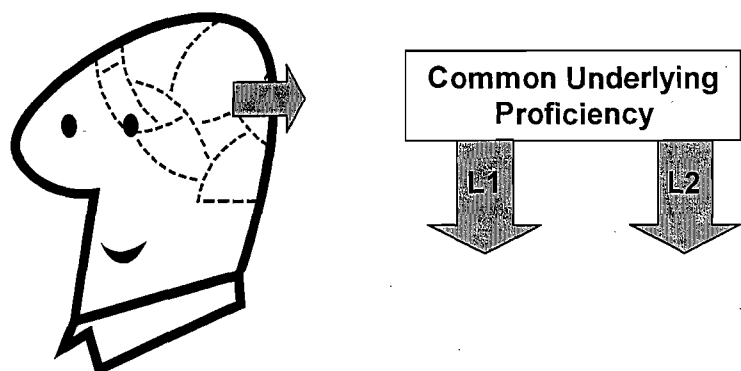
Figure 3.2 expresses the point that experience with either language can promote development of the proficiency underlying both languages, given adequate motivation and exposure to both either in school or in the wider environment (Cummins, 2001: 4 – 7).

Figure 3.1: The Separate Underlying Proficiency (SUP) Model



(Cummins, 2001)

Figure 3.2: The Common Underlying Proficiency (CUP) Model



(Cummins, 2001)

3.4.3 BICS and CALP

It is advisable to briefly ponder at this point in order to then discuss the issue of 'proficiency'. Until now, we have been using the term language proficiency without questioning what it means. When is one proficient enough to use a language for academic purposes? How proficient must one be in a language before (linguistic and cognitive) transfer to another language can take place?

Cummins (1991:169 - 170) draws a distinction between two levels of language proficiency, namely surface aspects (e.g. pronunciation, fluency, etc.), and underlying cognitive/academic proficiency. These two interrelated levels are formally known as Basic Interpersonal Communicative Skills (BICS) and Cognitive/Academic Language Proficiency (CALP).

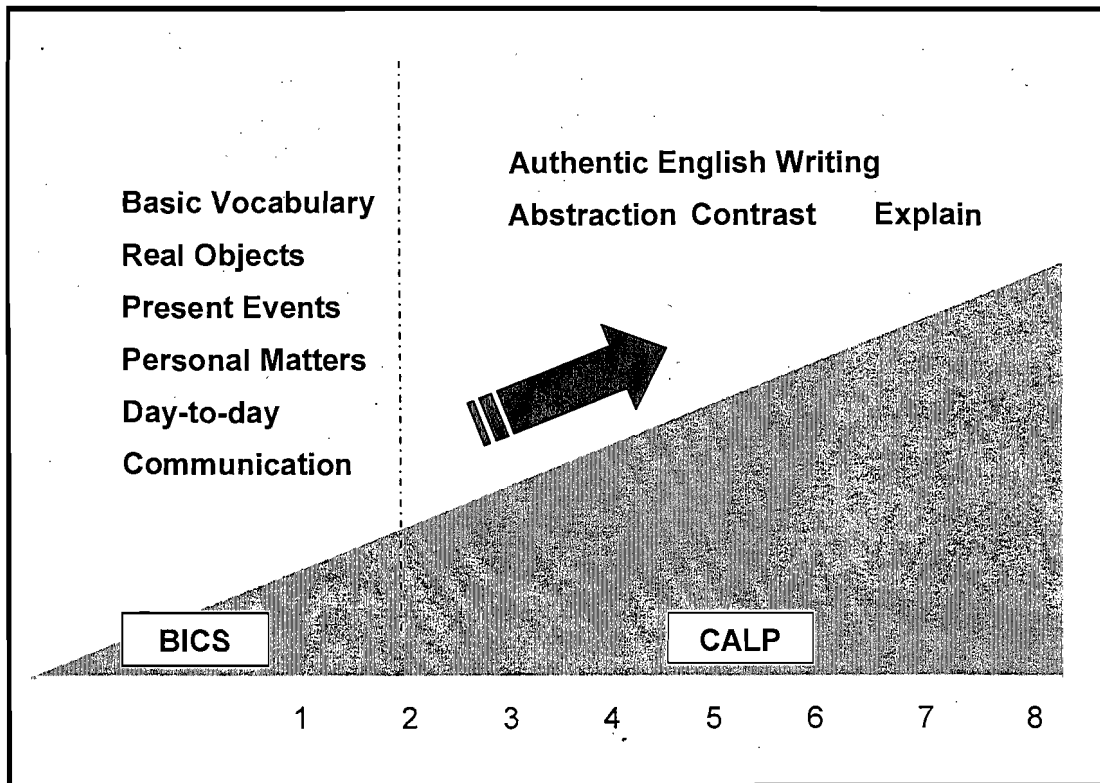
At the Vaal University of Technology students have to learn English not only as an additional language but also as a medium of instruction in an academic context. In this extremely challenging situation students need to learn English for academic purposes in order to enable them to cope with those subjects learnt in English. In addition, students need to gain control over a range of genres and related discourses, since they are required to write assignments and examination in the subject areas.

According to Kereni (2004:13), the kind of language used for academic instruction should be different from the language used for every day social communication. Baker (1996:154) argues that BICS are not sufficient to cope with the cognitively demanding situation of learning as in higher education. Carson (1995:54) highlights the enormous lexical differences between typical conversational interactions in English, compared to academic or literacy-related uses of English. The basic distinction still holds in Cummins' recent work (2001) although he also makes use of the terms 'conversational' and 'academic proficiency' in order to avoid misunderstandings.

For Cummins, in order for a bilingual learner to achieve CALP status in L2, s/he must first achieve CALP status in L1. The consensus is, that CALP can be reached in L2 after $\pm 5 - 7$ years of adequate exposure to L2 (i.e. once an adequate level of proficiency for schooling has been reached in L2), and only once the CALP level in L1 has been reached (Cummins, 1991:166). In the context of the Vaal University of Technology, students seemingly leave secondary school without having attained a sufficient level of CALP, both in their L1 as well as in the L2. According to Du Plessis (2006:48), many L2 learners have acquired BICS in English and can communicate adequately in everyday conversation, but struggle with CALP when there is little context-embedded language to support them. This indicates that these learners have

not yet reached the language proficiency levels required to learn in English (Viljoen & Molefe, 2001:121). It is often incorrectly assumed that these learners have language disabilities when, in fact, they are displaying only a BICS/CALP gap (Roseberry-McKibbin & Brice, 2000:5 – 7). The number of years needed to acquire BICS and CALP, is illustrated in Figure 3.3

Figure 3.3: Number of years required to teach BICS and CALP levels



Source: Meyers (1993:15)

Figure 3.3 illustrates that the acquisition of English may present a challenge to learners acquiring ELoLT (English as Language of Learning and Teaching) in South Africa, as the time available to gain CALP before the learners transfer to English in Grade Four is limited.

3.5 LESSONS TO BE LEARNT FROM OTHER COUNTRIES

3.5.1 Introduction

During the last few years virtually hundreds of researchers, policymakers, educators, employers, parents, and the media have re-examined the

advantages of second language learning (Marcos, 2001:9). Many researchers lean heavily on research done, especially by Marcos, especially where she attempts to assess the benefits that could be gleaned from other research sources, also in respect of multi-lingualism.

3.5.2 Benefits of L2 learning

Marcos (2001:15) identifies the following benefits:

- Individuals who speak and read more than one language have the ability to communicate with more people, read more literature, and benefit more fully from travels to other countries. It gives the opportunity to people to gain greater depth in their understanding of human experience, while also generating a complete advantage in respect of job opportunities and general human interaction.
- Students' cognition improves. Persons with full proficiency in general languages normally cognitively outperform monolingual persons.
- Students showed academic superiority in academic tests, showing that having acquired a second language, performed better socially, cognitively and academically.
- Marcos (2001:10) also states, that bilingualism and multilingualism have many benefits to society.
- Disabled children perform as well as above-average learners, even if the former's IQ is below average.

3.5.3 A brief comparison of TEFL (Teaching English as a Foreign Language) in a number of international countries

The following overview of international TEFL (TEFL International Conference, 2006) will help researchers to better understand the relationships of modern language learning.

Japan

English is first taught in junior high school when students are 13 years old and all junior high students learn English mainly because there is an English test in the high school entrance exam.

Limited progress has been made in respect of teaching English as the medium of instruction in most Japanese schools. Successes in TEFL in Japan are not constantly positive and a great deal of rote learning is done.

The Ministry of Education has however, formulated a strategy in 2002 to cultivate "Japanese with English abilities" in a concrete action plan with the aim of drastically improving the English education of Japanese people.

Israel

In Israel, all students take English from grade 4. Much emphasis is placed on learning English because it is an official language here, along with Hebrew and Arabic.

Teachers from countries abroad assist in making TEFL an enjoyable and successful endeavour for both learners and teachers.

Finland

Children start learning English in grade 3 when they are ±9 years old. By the age of 16 when they finish their school education, most will have studied 7 years of English.

Finland has the highest child literacy rate in Europe. Within the last 20 years communicative English skills have increased significantly. This may be attributed to high exposure to English on TV and on the radio.

South Korea

The situation in Korea is virtually the same as in Japan, where the use of English is dominated by a stringent focus on grammar. It could be stated that TEFL is partially successful.

Argentina

Mixed successes are achieved in Argentina, as the focus is primarily on visual teaching rather than on interpersonal communication, therefore the level of expression is especially very low.

Russia

Children learn English from the age of 10, covering four English lessons a week.

Brazil

English is part of the curriculum in public and private schools. The emphasis is on grammar and translation.

Iran

Although teachers are trained and instructed to use different new methods of teaching English as a foreign language, in practice many of them focus on explaining grammatical points in the teaching of the text.

India

In India, it is found that most of the professionals working in multinational companies, complete their school education in a language other than English and take up their technical and professional education, with English as the medium of instruction where the courses expose them to a very limited and restricted variety of the use of the English language (Dayal, 2005).

Tanzania

According to Rugemalira (2005:66), English is the medium of instruction in secondary and tertiary education, and coexists precariously with the national language (Kiswahili) across various domains of public functions. Many parents attach special significance to their children's mastery of the English language.

Malaysia

Each individual school in Malaysia is mainly seen as operating through one medium and is thus considered monolingual except that other languages may be taught as subjects. Tan (2005:49) says that what is envisaged is a full Malay-English bilingual education. The reason given most frequently is that English is the language of wider communication, and in order to tap into current knowledge, a knowledge of English is fast becoming necessary.

Canada

In the ESL-programme in Canada the following have been identified as core principles of effective ESL-programmes (Community Social Planning Council, 2005:15):

1. Equitable access for all who are in need of ESL programming.
2. An accountable and effective programming framework designed to meet student needs.
3. A thorough and consistent assessment process for all ESL students.
4. Placement that reflects ESL students' potential.
5. Specific ESL literacy components for those students facing literacy challenges.
6. Ongoing monitoring of individual student progress through appropriate assessment methods.
7. Inclusion of ESL methodology, cross-cultural and equity studies in all teacher-education programs.
8. Support structures that enable the progress

3.5.4 Lessons learnt at VUT

The EDL (English Development Language)-programme is a computer-based English language and cognitive development programme which stimulates

meta-cognitive skills and functions such as interpretation, synthesis, analysis and evaluation.

Diagnostic placement tests are given which indicate skills deficiencies and determine the appropriate EDL level for every student. The EDL levels are graded against school grades: ESL pre-school and pre-literacy to ESL grade 9 and EFL grades 10 to 13 (first university level).

The advantages of EDL are:

- Interactions is automatic and immediate;
- One-on-one lecturer intervention;
- Students pace themselves;
- Students compete against themselves;
- Progress reports are immediately available; and
- Subconscious learning takes place.
- To successfully complete EDL, students must read at least 300 words per minute and complete level 1A-grade 9.

Although no official documents are available on the EDL-programme (Read On) at the VUT, the following positive results were obtained from the lecturers at the EDL laboratory (Verwey & Hechter, 2007):

- Learners show an increase in the performance of their other subjects; some of their subjects increased by 20%.
- The reading speed of learners has improved, which has the effect that they are able to comprehend a bigger amount of learning material when studying for a test.
- Their study skills have also improved, keeping in mind that some of them did not use any study skills to absorb new learning material.

- In class, learners have shown more participation and were quick to respond to questions posed.
- The learners also have a better grasp of sentence construction and paragraph development, which were previously not competent.
- The learners' reading speed has increased from 90 wpm to 300 wpm, while their comprehension speed has increased with 70%.
- During interaction with learners, it became clear that their general knowledge has vastly improved.

It appears from the above that the grammar-based programmes used in many countries are not very successful. The more integrated, Read On skills-programme at the VUT may provide a more effective base for support.

3.6 CONCLUSION

It is clear from the above research, that there is a general consensus and realization of both the importance and magnitude of not only familiarity with English as the lingua franca of most social, political and ethical, as well of economic spheres of life, but of the often pressing need for a wide and in-depth study and knowledge of English.

Most countries show progressive success in the acquisition of English as a second (or a third) language and in several countries the entire economy is being founded on the wide-spread use of English.

In the next chapter, the empirical research will be discussed. As stated in Chapter one, specific objectives to be addressed, are to determine the influence of a second language as medium of instruction; to establish the nature of the support system which might facilitate the advancement of learners not prepared for the academic demands of university, and to determine what can be done to address the problem and provide possible recommendations for improved academic performance.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The preceding chapters provided an important background to the investigation contained in this research. As stated in Chapter one, the purpose of this study is to investigate possible reasons why learners do not perform academically well by receiving instruction in English (second language). Chapter two discussed the role which the medium of instruction has played in the history of South African Education, while Chapter three provided a theoretical background to the study of English as a second language; the language acquisition process; various approaches to language teaching, as well as lessons to be learnt from other countries regarding the teaching of English as a second language.

In this chapter, the empirical research will be discussed in more detail. As stated in Chapter one, specific objectives to be addressed are to determine the influence of a second language as medium of instruction; to establish the nature of the support system which might facilitate the advancement of learners not prepared for the academic demands of university, and to determine what can be done to address the problem and provide possible recommendations for improved academic performance.

4.2 RESEARCH METHOD

To know which research method is best for his/her study, the researcher has to consider the purpose and research questions, because the manner of questioning influences the way of responding. The choice of method should be based on the research problem to be addressed and the skills possessed by the researcher (Leedy & Ormrod, 2001:112). Quantitative research was used in this study, because it was the best method to achieve the aim of this study, namely to investigate possible reasons why learners do not perform academically well by receiving instruction in English (second language).

4.2.1 Quantitative research

Quantitative research is a major focus in this study and involves the generation of numerical data to address the research objectives or questions and to generalize the outcomes.

Quantitative research can be also termed the positivistic research approach. Tradition was founded in the idea that “positive” attempts to explain the world through scientific truth are the highest level of thought. The positivistic research approach embraces the scientific method of enquiry and acknowledges that everything in existence is present in some quality and hence, can be measured. This quantification element is a sophisticated one dealing with precision measurement, thus allowing more adequate analysis of phenomena by mathematical means. This method relies on assessment of validity through a variety of procedures based on statistical indices (Fraenkel & Wallen, 2000).

In reporting results of quantitative research, numbers which are manipulated by statistics, are relied on. These statistics help in organising and interpreting numbers from measuring a trait or variable. The whole process aims to test hypotheses according to the hypothesis-deductive methods of knowledge building (Leedy & Ormrod, 2001:195).

Quantitative methodology is useful when you need to know numbers of things, and is less useful for researching attitude or for understanding how people behave. In this type of research, the answers are limited by the question (Coulson, Goldstein & Ntuli, 2002: 43).

The descriptive method is the most basic of the quantitative research methods. It involves describing characteristics of a particular sample of individuals or other phenomena (Gall, Gall & Borg, 2003:288).

Quantitative research refers to the use of numbers in collecting or working with research data. The quantitative method has advantages and disadvantages. According to Louw and Edwards (1997:36), the following advantages and disadvantages are identified:

4.2.1.1 Advantages of the quantitative survey

- Provides a basis of comparing one result with another.
- Numbers can be subjected to mathematical procedures and processed with on a computer, so quantitative methods provide ways to deal with large bodies of data.
- Statistical techniques permit hypotheses to be rigorously tested.

4.2.1.2 Disadvantages of the quantitative survey

- Data converted to numbers, are removed from the actual behaviour and experience of the participant and the results then often fail to show the true nature of data that have been quantified.
- Many complex psychological phenomena are difficult to quantify and emphasizing quantitative research, may keep the researcher's attention on simple and superficial aspects of human nature.

4.2.2 Measurement in descriptive research

Descriptive studies are limited by the types and quality of available measures. These measures are of many types, including, for example, standardized achievement tests, classroom observation instruments, attitude scales, questionnaires, and interviews (Leedy & Ormrod, 2001:94).

4.3 DATA-COLLECTING INSTRUMENTS

It is essential to determine the instrumentation for this study, that is, what methods of gathering data are available and suitable for the proposed study (Locke, 1998:40).

Questionnaires, results of the language tests and existing data obtained from student records (2003 – 2007), will be used in this study.

4.3.1 The questionnaire

A questionnaire is a printed self-report form designed to elicit information that can be obtained through written responses of the subjects (Burns & Grovè, 2005:311). A structured questionnaire will be designed in order to obtain data on relevant variables as indicated by the literature study, as well as identify barriers perceived by students which hamper their academic progress. Descriptive statistics, such as frequencies, will be used to summarise the data.

The questionnaire is intended to find out whether the responses of the target groups will be in agreement, or refute the findings of the literature study. Structured questionnaires were used because the quantification and analysis of the results may be carried out more efficiently (Burns & Grovè, 2005: 358).

Questionnaires have been designed to determine facts about events or situation known by subjects, or beliefs, attitudes, opinions, levels of knowledge, or intentions of the subjects (Burns & Grovè, 2005: 311).

4.3.2 Population

Population is a term that sets boundaries on the study unit and refers to individuals in the universe who possess specific characteristics (Strydom & de Vos, 1998: 190). Universe in this research refers to the L1 and L2 students who registered in 2004 and have completed their studies in 2006, as well as students having completed in 2007. The population consisted of both female and male students from the Faculty of Visual Arts and Design.

4.3.3 Sampling

For the purpose of this study, no sampling was done and all learners in the Faculty of Visual Arts and Design (N = 52) were asked to complete the questionnaires. The academic results of the L1 and L2 learners over a consecutive period of 4 years were compared, so as to ascertain whether L1 learners have performed better in their final results than have L2 learners.

4.4 ETHICAL CONSIDERATION

Application for ethical permission was obtained according to the required ethical application form of the North-West University. Data obtained will not be used for reasons other than the purpose of this study.

The questionnaires were completed anonymously and no respondents can be traced, as the questionnaires were not numbered beforehand. As the questionnaires were completely anonymous, the respondents were assured of confidentiality of their individual responses. The respondents returned completed questionnaires in sealed envelopes.

4.5 PRINCIPLES OF QUESTIONNAIRE CONSTRUCTION

A number of basic principles must be taken into consideration when a questionnaire is developed. Some of these are discussed below.

4.5.1 Information needed

Before the researcher can decide on the nature of the questionnaire, there must be clarity on precisely what information is to be obtained. The questionnaire must be brief, including only those questions, which are absolutely necessary to collect all the questions, so that a situation does not arise later where information is missing. (Brink, 2004:153-155).

4.5.2 The format of the questionnaire

The format of the questionnaire will be influenced by whether it is a mailed, telephonic, group-administered or other type of questionnaire, as well as where, under what circumstances and by whom it will be completed. All questionnaires should, however, be accompanied by a covering letter. In the covering letter the person or organisation undertaking the research must be identified. A brief description of the purpose of the study is given in order to motivate respondents to give their co-operation for the investigation. The covering letter must also give an indication of the importance of the study. The covering letter should also give an indication of how the respondent came to be involved in the investigation (Bak, 2004:135).

4.5.3 Formulating the questions

According to De Vos (2000:56-186), certain basic principles can be stated for the formulation of questions of a questionnaire:

- Sentences must be brief and clear, and the vocabulary and style of the questions must be understandable to the respondents.
- Questions and response alternatives must be clear and not reflect the bias of the researcher.
- Every question must contain only one thought.
- Every question must be relevant to the purpose of the questionnaire.
- Abstract questions not applicable to the milieu of the respondents, must rather be avoided.
- Researchers must also not take it for granted that respondents will have knowledge about the subject.
- The sequence in which the questions are presented, must be aimed at general, non-threatening questions first, and more sensitive, personal questions later.

4.5.4 Pilot testing the questionnaire

A pilot study is defined by Strydom and de Vos (1998:179) as the process whereby the research design for a prospective survey is tested.

In all cases it is essential that newly constructed questionnaires be thoroughly pilot-tested before being utilised in the main investigation. This ensures that errors of whatever nature can be rectified immediately at little cost. The field worker and/or the respondent should also leave space on the questionnaire for comment or evaluation of the questionnaire. In this manner the researcher obtains a general impression of the feasibility of his/her questionnaire and the data, which he/she obtained (Du Plooy, 2002: 48).

The questionnaire has been pre-tested with selected respondents who are the representative of the target population. Their feedback indicated that the questionnaire was clear and appropriate to the study.

4.5.5 Steps taken to ensure completion of the questionnaire

When the questionnaire has been completed, we must find ways to ensure an acceptable response rate. In conclusion, the questionnaires will be designed to be clear, unambiguous and uniformly workable. The design of the questionnaires is intended to minimise potential errors from respondents and coders (De Vos, 2000:156).

For the purpose of this research, it was decided to deliver the questionnaires by hand to the participants of the Faculty of Visual Arts and Design.

4.6 DATA ANALYSIS

All of the completed questionnaires were usable and therefore were tallied, percentages calculated and frequencies displayed in tables, as necessary. Data were processed and analysed by means of statistical programs selected in consultation with the Statistical Consultation Services of the Vaal Triangle Faculty of the North-West University. In this way the raw data from the questionnaires were summarised and communicated to the readers of the report. These statistical measures were used to obtain an idea about the effect of the medium of instruction on the academic performance of learners at the Vaal University of Technology.

4.7 RESEARCH PHASES

Step 1: Literature study

Step 2: A questionnaire will be developed, based on the literature study, in order to obtain data on other biographical variables, identified by the literature study, which may have an influence on learner performance. Included in the questionnaire will be a section on aspects perceived by learners to be barriers in their academic performance. After pilot-testing, the questionnaire will be distributed

among students completing in 2007. Descriptive statistics will be used to summarise the biographical data.

Step 3: The final marks of L1 and L2 students who registered in 2004 and completed their studies in 2006, as well as students completing in 2007, will be analysed.

Step 4: Marks from the compulsory language test at the institution will be analyzed in order to establish learners' English language proficiency.

Step 5: Multiple regression analysis will be used to determine the best predictors of academic performance and the place of language within those predictors and interpret the data.

Step 6: Conclusion and recommendation.

4.8 SUMMARY

This chapter gave a description of the research design, data collection, data analysis and research process.

In the next chapter the data from the empirical research will be analysed and interpreted.

CHAPTER FIVE

DATA ANALYSIS AND INTERPRETATION

5.1 INTRODUCTION

In the previous chapter the research methodology used, as well as the empirical design, was discussed. A questionnaire was designed in order to determine the influence of English as medium of instruction on the performance of learners at the VUT. The aim of this chapter is to give an interpretation of the statistical analysis received.

Firstly the results of the questionnaire will be given and then interpreted, whereafter the results of the various statistical data will be presented and interpreted.

Please note that, where there appears to be discrepancies and the given percentages do not accumulate to a 100%, the missing percentages should be ascribed to a number of respondents not completing that particular question item.

5.2 RESULTS AND INTERPRETATION OF QUESTIONNAIRES

5.2.1 Biographical information

5.2.1.1 Age

Table 5.1: Age

18 – 22		23 – 27		Older than 27 years		Missing	
f	%	f	%	f	%	f	%
21	40,4	28	53,8	2	3,8	1	1.9

The above table indicates that:

- the majority of respondents (53,8%) are between 23 and 27 years of age, and

- only 3,8% of the respondents are 27 years and older, while 40,4% are between 18 and 22 years of age.

This information is an accurate reflection of the target population, who are all final-year students.

5.2.1.2 Gender

Table 5.2: Gender

Male		Female		Missing	
f	%	f	%	f	%
21	40,4	30	57,7	1	1.9

The above table indicates that 40,4% are male students and 57,7% are females. This may be contributed to the fact that Visual Arts and Design is traditionally a female domain at the VUT while males would rather opt for more career- specific courses.

5.2.1.3 Mother-tongue

Table 5.3: Mother-tongue

Language	Mother-tongue	f	%
	isiZulu	4	7,7
	isiXhosa	3	5,8
	Afrikaans	12	23,1
	Northern Sotho	6	11,5
	Tswana	6	11,5
	English	6	11,5
	Tsonga	3	5,8
	Southern Sotho	6	11,5
	Swati	1	1,9
	Venda	2	3,8
	Ndebele	0	0
	Other	1	1.9
	Missing	2	3.8

The table indicates that the home language of 23,1% of the respondents is Afrikaans.

Northern Sotho, Tswana, English and Southern Sotho are the languages with the second highest rate of usage, namely 11,5%. Swati and Ndebele are the languages less spoken by the respondents (1,9%).

The possible reason for the high percentage of Afrikaans-speaking respondents may be due to the fact that there is no other institution in the Vaal Triangle which offers a course in Visual Arts and Design to Afrikaans-speaking students.

5.2.2 Implementation of medium of instruction

Table 5.4: Implementation of medium of instruction

The table below indicates the responses of students to the question item on the implementation of the medium of instruction. These responses will be discussed in subsequent paragraphs.

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
1. If given a choice I would prefer my home language as medium of instruction.	11	21,2	17	32,7	21	40,4	3	5,8
2. English as a medium of instruction gives the learner a clear competitive advantage in respect of the job market.	34	65,4	13	25,0	2	3,8	3	5,8
3. Mother-tongue as medium of instruction positively affects my learning.	11	21,2	22	42,3	14	26,9	5	9,6
4. I would prefer to make my own personal choice in respect of my own medium of instruction.	10	19,2	26	50,0	11	21,2	4	7,7
5. True multilingualism is possible only by way of instruction via the medium of English.	14	26,9	24	46,2	9	17,3	5	9,6
6. English second language as medium of instruction positively affects my learning.	8	15,4	20	38,5	17	32,7	7	13,5

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
7. It would make educational sense to replace English by the mother-tongue as an instructional language.	3	5,8	12	23,1	15	28,8	22	42,3
8. The use of the mother-tongue as medium of instruction would benefit the learners' degree and speed of learning	10	19,2	21	40,4	14	26,9	7	13,5
9. Mother-tongue as medium of instruction negatively affects my learning.	5	9,6	10	19,2	25	48,1	12	23,1
10. English second language as medium of instruction negatively affects my learning.	4	7,7	10	19,2	25	48,1	13	25,0
11. Since 1994 a marked change has been seen regarding the free choice of the medium of instruction	2	3,8	24	46,2	15	28,8	5	9,6
12. The sole use of the mother-tongue as medium of instruction is a barrier in the way of scholastic achievement.	4	7,7	26	50,0	17	32,7	4	7,7
13. The English used for academic purposes is different from the English used in everyday social communication.	20	38,5	20	38,5	11	21,2	1	1,9

Question Item 1

A total of 40,4% of the respondents disagree that they would like their home language to be the medium of instruction and 5,8% strongly disagree while 32,7% agree and 21,2 % strongly agree to this question. To summarise, a total of 46,2% of the respondents disagree with the statement, while the majority of respondents, 53,9%, agree. This result is in disagreement with the literature study, which states that the majority of learners prefer to be taught in the medium of English, and not their mother-tongue (*cf.* 2.4.1 and 2.5).

Question Item 2

An analysis of the data pertaining this question reveals that 65,4% of the respondents strongly agree that they prefer English as the medium of instruction, 25% agree, 3,8% disagree and 5,8% strongly disagree. The implication is that the majority of the respondents, 90,4% strongly agree with the statement, while a small minority of 9,6% disagree. These responses are in strong contrast with the above and appear to be the direct opposite of the above, which states that a small majority prefers mother-tongue as a medium of instruction. The responses to this question is however, more in line with the findings of the literature study, that a significant majority (90,4%) prefer to be taught in English as medium of instruction.. Literature indicates that this may be due to the prestige value attached to having English as medium of instruction (*cf.* 2.4.1 and 2.4.2). One cannot help but wonder if many students did not perhaps misinterpret Question 1, even though the question was formulated very clearly.

Question Item 3

This question reveals that the majority of respondents either agree, 42,3% or agree strongly, 21,2% that their mother-tongue positively affects their learning. A total of 26,9% disagree and 9,6% strongly disagree. This indicates that a fair majority of 63,5% of the respondents agree with this statement while 30,5% disagree. This result is, once again, in contrast with their preference to English as medium of instruction (*cf.* 2.4.2.).

Question Item 4

A total of 19,2% of the respondents strongly agree and 50% agree that they prefer to make their own personal choice in respect of their own medium of instruction, while only 21,2% disagree and 7,7% strongly disagree with this question.

A vast majority, 69,2% of the respondents prefer to make their own personal choice in respect of medium of instruction.

Question Item 5

A total of 46,2% of the respondents agree and 26,9% strongly agree that multilingualism is possible only by way of instruction via the medium of English, while only 9,6% strongly disagree and 17,3% disagree with this.

This indicates a clear preference for English medium of instruction as the only instrument to obtain true multilingualism.

Question Item 6

A total of 38,5% of the respondents agree that English as medium of instruction positively affects their learning, while 15,4% strongly agree. Only 32,7% of the respondents disagree and 13, 5% strongly disagree.

This result is in line with the literature study and the results of question item 2 that learners prefer to be taught in English as medium of instruction (*cf.* 2.4.2).

Question Item 7

A significant majority of 71,1% of the respondents disagree that it would not make educational sense to replace English as medium of instruction by the mother-tongue as an instructional language, while only 28,9% were in favour of this.

Once again, this is in line with the literature study, as well as the results of quesiton items 2 and 6 (*cf.*2.4.2).

Question Item 8

A total of 40,4% of respondents agree that the use of the mother-tongue as medium of instruction would benefit their degree and speed of learning, while 19,2% strongly agree. Only 13,5% strongly disagree with this and 26,9% disagree.

From this it is clear that respondents perceive English as medium of instruction to be beneficial to their academic progress (*cf.* 2.4.2 and question items 2; 6 and 7 in 5.2.2).

Question Item 9

A total of 48,1% of the respondents disagree that the mother-tongue negatively affects their learning, while 23,1% strongly disagree. Only 19,2% agree with this question and 9,6% strongly agree. This result is in contrast with the respondents' earlier preference to English as medium of instruction.

Question Item 10

A total of 48,1% of the respondents disagree that English second language as medium of instruction negatively affects their learning, while 25% strongly disagree with this. A total of 19,2% agree with this while 7,7% strongly agree.

This result is in line with the respondents' positive view of English as medium of instruction (*cf.* 2.4.2; 3.2; and question items 2; 6; 7; and 8 in 5.2.2).

Question Item 11

A total of 50% of the respondents agree that there has been a marked change regarding the free choice of the medium of instruction, while 38,4% disagree and 11,6% did not answer this question (*cf.* 2.4.2).

Question Item 12

A total of 50,0% of the respondents agreed that the sole use of the mother-tongue as medium of instruction is a barrier in the way of scholastic

achievement, while 7,7% strongly agree, 32,7% disagree and 7,7% strongly disagree with this statement.

This result is in line with the respondents' preference of and to English as the medium of instruction. The perspective of the respondents in respect of the mother-tongue is also evident in the literature study (*cf.* 2.4.2; 3.2; and question items 2.6.7; and 8 in 5.2.2).

Question Item 13

A total of 38,5% of the respondents agree that the English used for academic purposes is different from the English used in everyday social communication, 38,5% strongly agree, 21,2% disagree and 1,9% strongly disagree with this.

From this we can deduct that a significant majority, 77% of the respondents, agree that English used for academic purposes differs from everyday English.

Support programmes may help students to bridge the gap between English-in-learning and communicative English.

5.2.3 Attitude towards medium of instruction

Table 5.5: Attitude towards medium of instruction

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
1. Specifically prepared textbooks in all ethnic languages are available to the majority of learners.	3	5,8	12	23,1	22	42,3	15	28,8
2. I am happy with the fact that my language of instruction at my institution is chosen for me.	10	19,2	21	40,4	19	36,5	2	3,8
3. The second language is acquired at too late a stage in life.	5	9,6	17	32,7	23	44,2	7	13,5
4. English as medium of instruction is essential for academic performance.	26	50,0	19	36,5	5	9,6	2	3,8
5. The learners' academic performance would improve markedly if English as a second language is learnt alongside the mother-tongue from an early childhood.	25	48,1	19	36,5	6	11,5	2	3,8
6. Bilingualism will be greatly enhanced should the teacher use another language as a second language parallel to the mother-tongue.	6	11,5	24	46,2	17	32,7	4	7,7
7. More language experts should be provided at each school.	18	34,6	28	53,8	3	5,8	3	5,8

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
8. Learners should try to avoid seeing either medium of instruction from a political point of view and rather look at it from an academic perspective.	24	46,2	21	40,4	6	11,5	1	1,9
9. Learning would be improved if the acquisition of the language of instruction is learnt only bit by bit.	4	7,7	20	38,5	21	40,4	7	13,5
10. Learners should be introduced to a second language only after the first language has been fully mastered.	5	9,6	13	25,0	20	38,5	14	26,9
11. Proficiency in English (spoken and written) holds a prominent place in the curriculum of the institution I attend.	20	38,5	23	44,2	7	13,5	1	1,9
12. I began to acquire a second language before ten years of age.	19	36,5	20	38,5	8	15,4	5	9,6
13. Spoken language is more important than written language acquisition.	8	15,4	15	28,8	18	34,6	10	19,2
14. I have tried to learn a classical language such as Latin or Greek.	1	1,9	9	17,3	14	26,9	27	51,9
15. I experience greater satisfaction from reading than from speaking English as a second language.	7	13,5	21	40,4	15	28,8	9	17,3

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
16. It is academically advantageous to acquire a good knowledge of both a second language and first language.	26	50,0	20	38,5	4	7,7		
17. In the process of mastering and developing cognitive skills, learners must practise their listening, reading and speaking abilities.	36	69,2	13	25,0	3	5,8		

Question Item 1

A total of 42,3% of the respondents disagree that the majority of learners have access to textbooks in other languages, while only 28,8% strongly disagree 23,1% agree and 5,8% strongly agree to having access to textbooks in other languages. A significant majority, 71,7% thus indicated that text books are not available in all ethnic languages.

One should note that even if text books were available in ethnic languages, indications are that students would still prefer to be taught in English second language (cf. 2.4.2 and 3.2; and question items 2; 6; 7; 8 and 11 in 5.2.2).

Question Item 2

A total of 40,4% of the respondents agree that they are happy with the fact that their language of instruction is chosen for them, while 19,2% strongly agree, 36,5% disagree and 3,8% strongly disagree.

Again there is a discrepancy in the respondents' reply, as in question item 4 (5.2.2.) the majority of the respondents indicated that they prefer to make their own choice in this regard.

Question Item 3

The result of this question item shows that 44,2% of the respondents disagree, 13,5% strongly disagree, 32,7% agree and 9,6% strongly agree that the second language is acquired at too late a stage in life.

The majority of respondents, 57,7% disagrees with this statement and therefore is of the opinion that second language is not acquired at too late a stage in life.

Question Item 4

A total of 50,0% of the respondents strongly agree and 36,3% agree that English as medium of instruction is essential for academic performance, while 9,6% disagree and a minority of the respondents, 3,8% strongly disagreed.

An overwhelming majority of the respondents, 86,5% agree that English as medium of instruction is essential for academic performance. This result is in line with the respondents' preference for and to English as medium of instruction, and again correlates with the literature study's findings that the medium of instruction has an effect on learners' academic performance (*cf.* 2.5 and 3.2 and question items 2; 6; 7; 8 and 11 in 5.2.2 and question item 1 in 5.2.3).

Question Item 5

A total of 48,1% of the respondents strongly agree and 36,5% agree that their academic performance would improve markedly if English as a second language is learnt alongside the mother-tongue from early childhood. Only 11,5% disagree and 3,8% of the respondents strongly disagree with this item.

Again, a large majority, 84,6% of the respondents felt that academic performance would improve markedly if English as a second language is learnt from early childhood. The result is in line with the majority of the respondents' preference to receive their instruction in the medium of English (*cf.* 2.5 question items 2; 6; 7; 8 and 11 in 5.2.2 and question item 1 in 5.2.3).

Question Item 6

A total of 46,2% of the respondents agree and 11,5% strongly agree that bilingualism would be greatly enhanced should the teacher use another language as a second language parallel to the mother-tongue, while 32,7% of the respondents disagreed and 7,7% strongly disagree with this statement.

Question Item 7

A total of 53,8% of the respondents agree and 34,6% strongly agree that more language experts should be provided at each school. Only 5,8% of them strongly disagree and an equal percentage disagree. This result may suggest a need that exists in learners to receive better teaching through the medium of instruction (*cf.* 2.5 and 3.2).

Question Item 8

A total of 46,2% of the respondents indicated that they strongly agree and 40,4% agree to avoid seeing medium of instruction from a political point of view and look at it from an academic perspective. A total of 11,5% strongly disagree and only 1,9% of the respondents indicated that they strongly disagree.

Question Item 9

A total of 40,4% of the respondents indicated that they disagree that learning would be improved if the acquisition of the language of instruction is learnt only bit by bit, while 13,5% responded that they strongly disagree with this item. A total of 38,5% of the respondents agree with this statement while 7,7% strongly agree.

A majority of 53,9% of the respondents disagree that acquisition of the language of instruction should be learnt bit by bit. It appears therefore as if most respondents would be in favour of immersion rather than the additive approach to language acquisition (*cf.* 3.4.1).

Question Item 10

A total of 38,5% of the respondents disagree that they should be introduced to a second language only after their home languages have been fully mastered, while 26,9% strongly disagree. A total of 25% of the respondents disagree with this statement and 9,6% strongly agree. This result suggests that the majority of the respondents, 65,4%, are of the opinion that learners should not be introduced to a second language only after the first language has been fully mastered.

It appears as if the respondents may be uninformed about the issue concerning the competency of a learner's mother-tongue, and the eventual acquisition of a second language, as argued in the literature study (*cf.* 2.7 and 3.2).

Once again, the results confirm that the respondents are in favour of English being introduced as soon as possible (*cf.* question item 9, in 5.2.3).

Question Item 11

A total of 44,2% of the respondents agree that English holds a prominent place in the curriculum of the institution they attend, while 38,5% strongly agree.

A total of 30,5% of the respondents disagree with this statement while 1,9% strongly disagree.

These results accurately reflect the language policy and practice at the VUT.

Question Item 12

A total of 38,5% of the respondents indicated that they agree and 36,5% strongly agree to acquiring a second language before ten years of age, while 15,5% disagree and 9,6% strongly disagree to this question item. This result reflects the learners' attitude towards the acquisition of English as medium of instruction (*cf.* 2.7; question items 9 and 10, in 5.2.3).

Question Item 13

A total of 34,6% of the respondents disagree that the spoken language is more important than written language acquisition and 19,2% strongly disagree. A total of 28,8% of the respondents agree with this statement while 15,4% strongly agree.

A majority of 53,8% of the respondents regard the spoken language as more important than written language acquisition. This can be problematic in a teaching-learning situation where content and evaluation rely heavily upon the written language.

Question Item 14

A total of 51,9% of the respondents strongly disagree that they have tried to learn a classical language such as Latin or Greek, while 26,9% disagree. A

total of 17,3% of the respondents agree that they have tried to learn such a language while 1,9% strongly agree.

This result may indicate that the majority of the respondents 78,8% are not interested in acquiring a third language, because of their preference towards the medium of instruction, although this preference had an influence on their academic performance, as indicated in the research study (*cf.* 2.6)

Question Item 15

A total of 40,4% of the respondents agree that they experience greater satisfaction from reading than from speaking English as a second language, while 13,5% strongly agree. A total of 28,8% of the respondents disagree with this statement while 17,3% strongly disagree.

This unexpected result appears to be in contrast with the learners' academic performance, which might benefit from a learner's extensive reading (*cf.* 2.4.2).

Question Item 16

A total of 50,0% of the respondents strongly agree and 38,5% agree that it is academically advantageous to acquire a good knowledge of both a second language and first language, while 7,7% of the respondents disagree to this item and not a single respondent strongly disagree.

The vast majority, 88,5% of the respondents appear to understand the academic advantage of acquiring a good knowledge of both a first and second language.

Question Item 17

The majority of the respondents, 69,2% indicated that they strongly agree that they must practise their listening, reading and speaking abilities, while 25% agree. Only 5,8% disagree and no respondents strongly disagree.

This result is pleasing, because all learners might benefit from integrating the other English language skills. This could eventually have a beneficial effect on their academic performance (*cf.* 2.4.2).

5.2.4 Barriers related to medium of instruction

The following table indicates the respondents' results regarding barriers related to the medium of instruction.

Table 5.6: Barriers related to the medium of instruction

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
1. I believe that English as medium of instruction is a barrier in my academic achievements.	6	11,5	9	17,3	19	36,5	18	34,6
2. Governmental language policies in respect of the language medium of instruction interfere in the learner's choice of his/her language instruction.	4	7,7	13	25,0	30	57,7	5	9,6
3. The great diversity of ethnic groups in South Africa is problematic in education.	7	13,5	21	40,4	14	26,9	10	19,2
4. Multilingualism often causes the languages to interfere with each other.	6	11,5	26	50,0	10	19,2	9	17,3
5. The many ethnic social barriers or borders often negatively affect academic achievements.	6	11,5	21	40,4	19	36,5	6	11,5
6. The fact that so many laws have been made regarding the learning of especially English and Afrikaans, is a great drawback for second language and third language learners.	4	7,7	18	34,6	22	42,3	7	13,5
7. Any scholastic under-achievement occurs because learners are subjected to instruction in a second or a third language tongue.	5	9,6	18	34,6	23	44,2	6	11,5

	Strongly agree		Agree		Disagree		Strongly disagree	
	f	%	f	%	f	%	f	%
8. Scholastic under-achievement occurs because the learner is subjected to a variety of language media in the teaching environment.	1	1,9	18	34,6	27	51,9	6	11,5
9. To express myself meaningfully in a language other than the mother-tongue makes learning extremely difficult for me.	4	7,7	19	36,5	19	36,5	10	19,2
10. The use of the mother-tongue alone as medium of instruction is a barrier in the way of scholastic achievement.	9	17,3	18	34,6	15	28,8	10	19,2

Question Item 1

A total of 36,5% of the respondents disagree that English as medium of instruction is a barrier in their academic achievements, while 34,6% strongly disagree. A total of 17,3% of the respondents agree with this statement and 11,5% strongly agree.

The vast majority, 71,1% does not perceive English as medium of instruction to be a barrier in academic performance. This result suggests that learners do not realize the fact that English as a medium of instruction, may be a barrier in their academic achievements, as showed in the literature study (*cf.* 2.6). Their lack of insight may actually prevent them from getting the language support they need.

Question Item 2

A total of 57,7% of the respondents agree that governmental language policies in respect of the language medium of instruction interfere with their choice of instruction and 9,6% strongly disagree. A total of 25% of the respondents agree and 7,7% strongly agree with this question item.

A fair majority, 67,3% of the respondents do not perceive governmental language policy to inflict upon their choice of medium of instruction.

Question Item 3

A total of 40,4% agree that the great diversity of ethnic groups in South Africa is problematic in education, while 13,5% strongly agree to this. A total of 26,9% of the respondents disagree with this question item, while 19,2% strongly disagree.

The majority, 53,9% views the ethnic diversity of the South African population as problematic in coming to terms with our educational challenges.

Question Item 4

A total of 50,0% of the respondents agree that multilingualism often causes the languages to interfere with each other, while 11,5% strongly agree.

A total of 19,2% of the respondents disagree with this question item and 17,3% strongly disagree.

The majority of the respondents, 61,5% appears to be aware of the complexities of language realities in teaching-learning.

Question Item 5

A total of 40,4% of the respondents agree that the many ethnic social barriers often negatively affect academic achievements, while 11,5% strongly agree.

A total of 36,5% of the respondents disagree while 11,5% strongly disagree.

Respondents appear to be divided on this issue.

Question Item 6

A total of 42,3% of the respondents disagree that the many laws that have been made regarding the learning of especially English and Afrikaans, is a great drawback for second language and third language learners, while 13,5% strongly disagree. A total of 34,6% agree with this question item and 7,7% of the respondents strongly agree.

As with the above question item, respondents appear to be divided on this matter.

Question Item 7

A total of 44,2% of the respondents disagree that scholastic underachievement occurs because learners are subjected to instruction in a second or a third language, while 11,5% strongly disagree, 34,6% agree and 9,6% strongly agree to this question item.

This result may indicate that learners are not yet aware of the fact, as shown in the literature study, that English as the language of instruction might have a negative influence on their academic achievement (*cf.* 2.7).

Question Item 8

The majority of respondents (51,9%) disagree that scholastic underachievement occurs because the learner is subjected to a variety of language media in the teaching environment, while 11,5% strongly disagree, 34,6% agree and 1,9% strongly agree to this question item.

This result may be seen in a positive light, as a variety of language media may benefit the learners' absorption and comprehension of new knowledge.

Question Item 9

An equal percentage of the respondents, 36,5% agree, as well as disagree, that to express themselves meaningfully in a language other than the mother-tongue, makes learning extremely difficult for them. A total of 19,2% strongly disagree and 7,7% strongly agree.

This discrepancy in the results may be attributed to the misconception that learners have on their language ability in respect of a second language (*cf.* 2.7).

Question Item 10

A total of 34,6% of the respondents agree and 17,3% strongly agree that the use of the mother-tongue alone, as a medium of instruction, is a barrier in the way of academic achievement, while 28,8% disagree and 19,2% strongly disagree to this question item.

This result may indicate that the respondents are still of the opinion that their mother-tongue is seen as a barrier, while the literature study showed that the use of the mother-tongue can have a positive influence on their learning and academic performance (*cf.* 2.7 and 3.2).

5.3 RESULTS OF STATISTICAL DATA

5.3.1 Enrolment per course

Table 5.7: Enrolment per course

Diploma	2004		2005		2006		2007		Total	
	f	%	f	%	f	%	f	%	f	%
Fashion	63	20,2	51	18,3	35	15,1	55	24,4	204	19,5
Fine Art	85	27,2	87	31,3	77	33,2	67	29,8	316	30,2
Graphic Design	125	40,1	105	37,8	82	35,3	67	29,8	379	36,2
Photography	39	12,5	35	12,6	38	16,4	36	16,0	148	14,1
Total	312	100,0	278	100,0	232	100,0	225	100,0	1047	100,0

The above table indicates the enrolment of students per course in the Faculty of Visual Arts and Design for the years 2004 to 2007.

In 2004, 20,2% of the students enrolled for the diploma in Fashion, 27,2 for Fine Arts, 40,1% for Graphic Design and 12,5% for Photography.

In 2005, 18,3% of the students enrolled for the diploma in Fashion, 31,3% for Fine Art, 37,8% for Graphic Design and 12,6% for Photography.

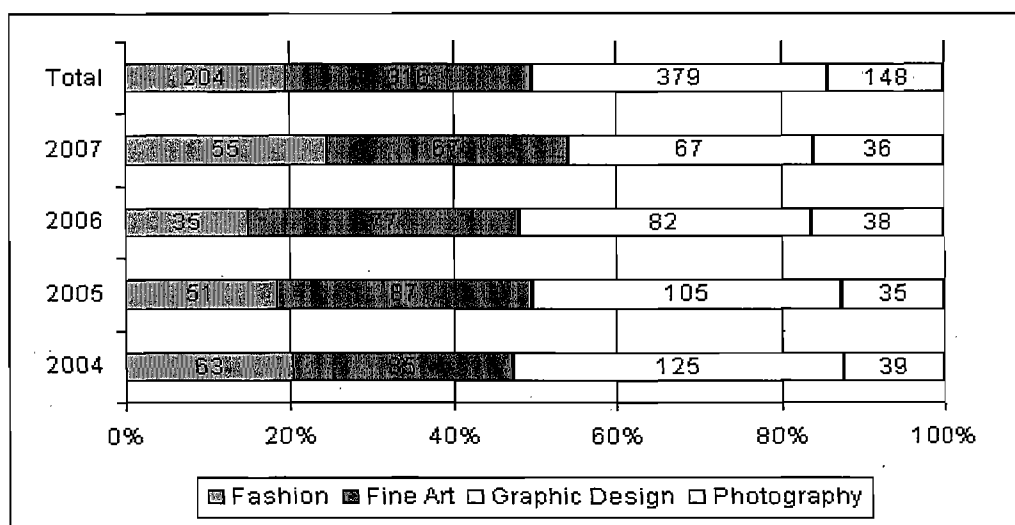
In 2006, 15,1% of the students enrolled for the diploma in Fashion, 33,2% for Fine Art, 35,3% for Graphic Design and 16% for Photography.

In 2007, 24,4% of the students enrolled for the diploma in Fashion, 29,8% for Fine Arts, 29,8% for Graphic Design and 16,4% for Photography.

For most of the courses the enrolment remained more or less stable but there was a clear decline in students' enrolling for Graphic Design. In 2007 fewer students enrolled for this course.

The following figure represents the enrolment of students per course in the Faculty of Visual Arts and Design.

Figure 5.1: Enrolment per course



5.3.2 Gender distribution

Table 5.8: Gender distribution

Gender	2004		2005		2006		2007		Total	
	f	%	f	%	f	%	f	%	f	%
Male	151	48,4	148	53,2	107	46,1	114	50,7	520	49,7
Female	161	51,6	130	46,8	125	53,9	111	49,3	527	50,3
Total	312	100,0	278	100,0	232	100,0	225	100,0	1047	100,0

The above table indicates the gender distribution of students for the years 2004 to 2007 in the Faculty of Visual Arts and Design.

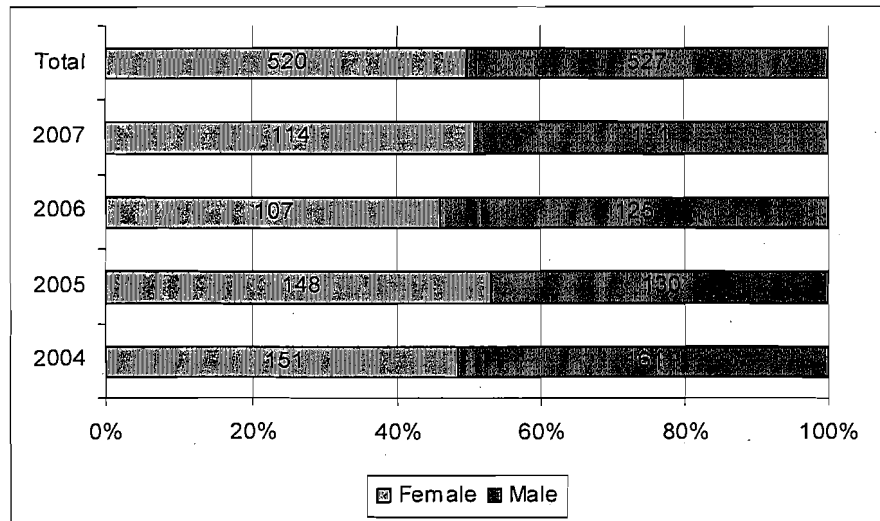
In 2004, there were 48,4% female and 51,6% male students in the Faculty of Visual Arts and Design.

In 2005, the females constituted 53,2% and the males 46,8%. In 2006, there were 46,1% females and 53,9% males. In 2007, the females were 50,7%, while the male students were 49,3%.

The gender distribution in the Faculty of Visual Arts and Design are more or less equal for the years 2004 to 2007.

The following figure represents the gender distribution of students for the years 2004 to 2007 in the Faculty of Visual Arts and Design.

Figure 5.2: Gender distribution



5.3.3 Language distribution

Table 5.9: Language distribution

Language	2004		2005		2006		2007		Total	
	f	%	f	%	f	%	f	%	f	%
English	29	9,3	27	9,7	28	12,1	23	10,2	107	10,2
Other	283	90,7	251	90,3	204	87,9	202	89,9	940	89,9
Total	312	100,0	278	100,0	232	100,0	225	100,0	1047	100,0

The above table indicates the language distribution in the Faculty of Visual Arts and Design, for the years 2004 to 2007.

In 2004, 9,3% of the students enrolled were English home language speakers, while 90,7% was speakers of other languages.

In 2005, 9,7% of the enrolled students were English home language speakers, while 90,3% was speakers of other languages.

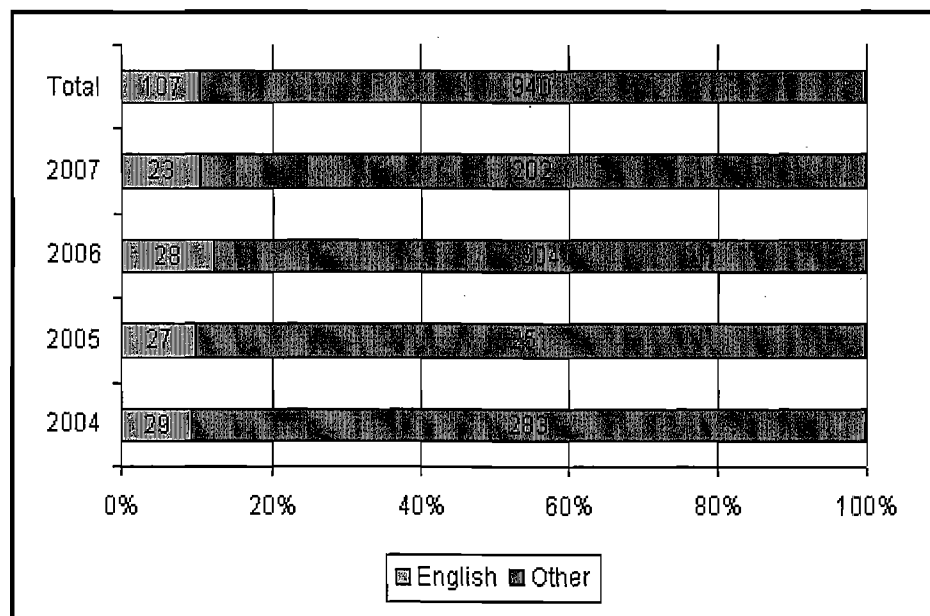
In 2006, 12,1% of the students enrolled were English home language speakers, while 87,9% was speakers of other languages.

In 2007, 10,2% of the students enrolled were English home language speakers, while 89,9% was speakers of other languages.

The language distribution in the Faculty Visual Arts and Design shows a clear difference from 2004 to 2007. There were a distinctly larger percentage of other- language speakers than English home language speakers.

The following figure represents the language distribution in the Faculty of Visual Arts and Design, for the years 2004 to 2007.

Figure 5.3: Language distribution: 2004 - 2007



5.3.4 Differences between groups

Table 5.10: T-tests

Year	Language	Mean	Std Deviation	t	p	Cohen	Effect size
2004	English	53.83	17.86	1.525			
	Other	48.21	19.02	1.605	.117		
2005	English	58.08	14.09	2.37			
	Other	50.41	16.20	2.65	.019	0.473	Significant
2006	English	58.69	13.15	2.78			
	Other	50.24	15.31	3.12	.001	0.552	Medium
2007	English	53.91	17.71	.712			
	Other	51.38	15.92	.654	.519		
Total	English	56.19	15.73	3.67			
	Other	49.92	16.88	3.88	.551		

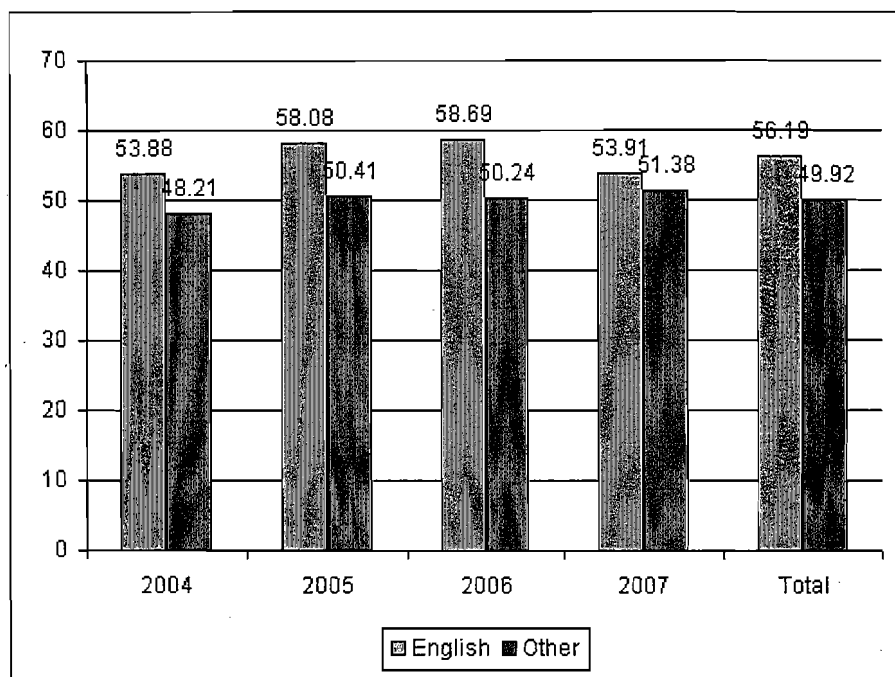
As table 5.10 indicates, in 2004 there was a small difference between the academic performance of the English mother-tongue learners and the speakers of other languages. In 2005 there was a statistically significant difference with the English mother-tongue learners performing on average better than the speakers of other languages. In 2006 there was an even greater statistically significant difference. In 2007, this difference was much smaller. This can be contributed to the bridging programme, 'Read On' that was implemented in the last semester of 2006. The aim of this programme is to diagnose, instruct, provide practice and reinforcement of reading and language competencies.

This may be valuable information as it indicates that language support programmes have a purpose at tertiary institutions.

The following diagram represents the academic performance of English home language speakers compared to speakers of other languages. The figure represents the average of students from 2004 to 2007.

It is clear that the overall performance of English home language speakers remains higher than the performance of other language speakers.

Figure 5.4: Home language and academic performance



5.4 SUMMARY

This chapter presented and interpreted the results of the questionnaire, where-after the results of the various statistical data were presented and interpreted.

Although the respondents contradict themselves in some of the question items, it is clear that the overall sentiment is in favour of English as medium of instruction. A point of concern is that respondents appear not to be aware of their own limitations in respect of English and may therefore not realize that they are in need of support and/or assistance. What is also worrying is that respondents appear to be more focused on the spoken language than the

written language. Where in everyday circumstances this may not matter, the academic situation is to a large extent focused on reading and writing.

The next and final chapter of this research study will focus on the research findings and recommendations.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In this chapter a conclusion of the research done, is given. Secondly, the findings with respect to the research aims as stated in Chapter 1, are discussed with regard to the literature study on the role of the medium of instruction in the history of South Africa (Chapter 2); a historical overview of the medium of instruction, the language acquisition process and its effect on learning and teaching (Chapter 3); as well as the empirical research done in Chapter 5. Lastly, recommendations based on the research findings, are given.

6.2 CONCLUSIONS

In Chapter 1 the problem statement and substantiation were discussed. The research aims and objectives were then stated. Subsequently, the method of investigation, as well as the provisional chapter division, was given.

Chapter 2 focused on the language realities in South Africa where reference was made to the distribution of languages. Secondly, an overview of the language policy regarding the medium of instruction was discussed. Thirdly, the period before and after the democratic elections in 1994, was reviewed. The focus then shifted to the discrepancy between policy and practice, and in the fifth instance, parents' and learners' choice in respect of medium of instruction was reviewed.

Chapter 3 presented a historical overview of the medium of instruction; the language acquisition process and its effect on learning and teaching; various approaches to second language teaching; theoretical considerations in respect of the medium of instruction and its effect on the learner's academic performance and a short review was given on lessons to be learnt from other countries.

In Chapter 4, the empirical research was discussed in more detail. As stated in Chapter 1, specific objectives to be addressed, were to determine the influence of a second language as medium of instruction; to establish the nature of the support system which might facilitate the advancement of learners not prepared for the academic demands of university, and to determine what can be done to address the problem and provide possible recommendations for improved academic performance.

Chapter 5 presented an interpretation of the statistical analysis received.

Firstly, the results of the questionnaire were presented and then interpreted, whereafter the results of the various statistical data were presented and interpreted.

Finally, the findings of the research with reference to the research aims will follow (*cf.* 1.2).

6.3 FINDINGS

6.3.1 Findings with reference to research aim 1: The influence of a second language as medium of instruction.

- One of the dominant features in respect of a medium of instruction in the academic area, is the choice of which medium of instruction best suits the South African situation (*cf.* 2.1; 2.3; 2.4.2; 2.4.3; 2.5; 2.6).
- Despite a growing awareness that mother-tongue education is more effective than second language medium of instruction, English as a second language has become the dominant medium of instruction in Southern Africa (*cf.* 2.4.3; 2.4.4; 2.5).
- Black parents have over the years, opposed mother-tongue instruction (*cf.* 2.5).
- Black parents in South Africa perceive mother-tongue instruction generally as discriminatory and as a political ploy in which English and Afrikaans are

privileged, whilst African languages are undervalued and underdeveloped by the education system (*cf.* 2.4.1 and 2.5).

- Many Black parents and learners continue to associate English with social, educational and employment opportunities and therefore, choose it as the language of instruction (*cf.* 2.4.2).
- The choice in respect of the medium of instruction could result from all schools' not having the required infrastructure or staff motivation to accommodate more than one language; parents wanting to ensure a good social and successful financial future for their children and believing that English is an open sesame to the job market (*cf.* 2.1; 2.4.1; 2.6; 2.7).
- Since the early 1980's much research has been done in South Africa and elsewhere in Africa around the effect of English medium of instruction on learners whose mother-tongue is not English (*cf.* 2.1 and 2.4).
- Many of these studies have argued for the use of mother-tongue instruction in order to ensure that effective learning takes place in the classroom (*cf.* 2.1 ; 2.4.1; 2.4.2; 2.4.3; 2.5; 2.6; 3.2).
- Implementation of the new language policy has been slow (*cf.* 2.4; 2.4.1; 2.4.3; 2.4.4; 2.5.1).
- There is a high failure rate at many tertiary institutions, due to the fact that learners have a low proficiency in the medium of instruction (*cf.* 2.6 and 3.2).

6.3.2 Findings with reference to research aim 2: To establish the nature of a support system which might facilitate the advancement of learners not prepared for the academic demands of university.

- A comparative overview of various other countries indicates that most support programmes which focused on grammar had minimal success (*cf.* 3.5.3).

- In Canada the following have been identified as core principles in such support systems (*cf.* 3.5.3):
 1. Equitable access for all who are in need of ESL programming.
 2. An accountable and effective programming framework designed to meet student needs.
 3. A thorough and consistent assessment process for all ESL students.
 4. Placement that reflects ESL students' potential.
 5. Specific ESL literacy components for those students facing literacy challenges.
 6. Ongoing monitoring of individual student progress through appropriate assessment methods.
 7. Inclusion of ESL methodology, cross-cultural and equity studies in all teacher-education programs.
 8. Support structures that enable the progress
- The Read-On integrating skills-programme at the VUT appears to be more successful than grammar-based support programmes. Some of its benefits are (*cf.* 3.5.4):
 - Increase in the performance of their other subjects; some of their subjects increased by 20%.
 - The reading speed of learners has improved, which has the effect that they are able to comprehend a bigger amount of learning material when studying for a test.
 - Their study skills have also improved, keeping in mind that some of them did not use any study skills to absorb new learning material.
 - In class, learners have shown more participation and were quick to respond to questions posed.

- The learners also have a better grasp of sentence construction and paragraph development, which were previously not competent.
- The learners' reading speed has increased from 90 wpm to 300 wpm, while their comprehension speed has increased with 70%.
- During interaction with learners, it became clear that their general knowledge has vastly improved.
- First language competence on a high level is essential to effectively develop superior skills such as negotiating meaning, managing information, identifying and analyzing problems and formulating solutions.
- The L1 (first language) should be built upon through a process of additive bilingualism.

6.3.3 Findings with reference to research aim 3: Addressing the problem and providing possible recommendations for improved academic performance.

- Teachers do not have adequate training to allow them to teach confidently and effectively in the learners' choice of language(s) (*cf.* 2.4.2 and 2.5).
- The decision of academic institutions, as well as of parents, to use English as the language of learning, has contributed to the present situation of high failure rates at both schools and universities. One of the tasks that language people in South Africa need to undertake is to persuade parents that the answer to their needs and those of their children lies in the language of learning that their children know well, together with high quality teaching of English as subject (*cf.* 2.5).
- The mother-tongue and culture need to be promoted in order to advance to the English language (*cf.* 2.6).

- Research has shown that where the mother-tongue is the dominant instructional medium, supported by L2 (second language), best educational results are obtained.
- First language competence at a high level is essential to effectively develop superior skills such as negotiating meaning, managing information, identifying and analyzing problems and formulating solutions (*cf.* 2.6).
- The L1 (first language) should be built upon through a process of additive bilingualism (*cf.* 2.6 and 3.5.2).
- Learners need to be offered options for and encouragement to aspire to progress through their schooling into higher education through the medium of their home languages, while at the same time providing access in and effective acquisition of the additional/second language (*cf.* 2.6 and 3.2).
- Since language is such a crucial means by which to gain access to higher levels of knowledge and skills, proficiency in English should already be addressed as early as the preschool level and should not be postponed until tertiary education centres have to intervene (*cf.* 3.2).
- Researchers have produced supporting empirical evidence that there is a direct relationship between first language acquisition and learning beyond and inside the classroom and parallel to this, second language learning in the classroom (*cf.* 3.2 and 3.5.2).
- Learners have not acquired the cognitive academic language proficiency to describe or explain subject-related concepts across the curriculum. Learners have also not mastered the necessary cognitive language and reading skills to critically evaluate scientific or technical texts to master content across the different learning areas (*cf.* 2.4.1 and 2.4.2).

- Multilingual classrooms create a new set of problems for EFL teachers who have not been trained in the teaching of English as a second language (*cf.* 2.4.2).
- The lack of learning material at all levels of the education system and the lack of resources to fund the development of learning materials in the eleven official languages entrenches English as the language of learning across the curriculum (*cf.* 2.4.2).
- Language domination with no delivery in respect of language equity for the indigenous official languages (*cf.* 2.5).
- Inequality of opportunity as regards access to government services, knowledge and information.
- The marginalisation of the indigenous languages and (arguable also the increasing marginalisation of Afrikaans (*cf.* 2.5).

6.3.4 Findings with reference to empirical research:

- A significant majority of the respondents prefer to be taught in English as medium of instruction (*cf.* 5.2.2).
- From this it is clear that respondents perceive English as medium of instruction to be beneficial to their academic progress (*cf.* 2.4.2 and question items 2; 6 and 7 in 5.2.2).
- A significant majority of the respondents agree that English used for academic purposes differs from everyday English (*cf.* 5.2.2).
- It appears that text books are not readily available in ethnic languages and even if they were, indications are that students would still prefer to be taught in English second language (*cf.* 2.4.2 and 3.2; and question items 2; 6; 7; 8 and 11 in 5.2.2).

- It appears therefore as if most respondents would be in favour of immersion rather than the additive approach to language acquisition (*cf.* 3.4.1).
- It appears as if the respondents may be uninformed about the issue concerning the competency of a learner's mother-tongue, and the eventual acquisition of a second language, as argued in the literature study (*cf.* 2.7 and 3.2).
- Once again, the results confirm that the respondents are in favour of English being introduced as soon as possible (*cf.* question 9, in 5.2.3).
- A majority of the respondents regard the spoken language as more important than written language acquisition. This can be problematic in a teaching-learning situation where content and evaluation rely heavily upon the written language (*cf.* 5.2.3).
- The vast majority of the respondents appear to understand the academic advantage of acquiring a good knowledge of both a first and second language (*cf.* 5.2.3).
- Unfortunately, however, the vast majority of respondents do not perceive English as medium of instruction to be a barrier in academic performance. This result suggests that learners do not realize the fact that English as a medium of instruction may be a barrier in their academic achievements, as showed in the literature study (*cf.* 2.6). Their lack of insight may actually prevent them from getting the language support they need (*cf.* 5.2.4).
- The majority of the respondents, 61,5% appears to be aware of the complexities of language realities in teaching-learning.
- It appears as if learners are not yet aware of the fact, as shown in the literature study, that English as the language of instruction might have a negative influence on their academic achievement (*cf.* 2.7; 5.2.4).

- It appears as if respondents may have misconceptions on their language ability (*cf.* 2.7; 5.2.4).
- Respondents appear to be of the opinion that their mother-tongue is seen as a barrier, while the literature study showed that the use of the mother-tongue can have a positive influence on their learning and academic performance (*cf.* 2.7; 3.2; 5.2.4).
- The support programme for English second language learners that was implemented in 2006, appears to be beneficial to its target groups (*cf.* 5.2.4).

6.4 RECOMMENDATIONS

Recommendation 1

Revisiting the choice of medium of instruction.

Motivation

From the literature study and the empirical research, it is clear that one of the primarily dominant features in the academic area is the choice of which the medium of instruction best suits the South African situation.

Despite a growing awareness that mother-tongue education is more effective than bilingual or second language medium of instruction, English as a second language has become the dominant medium of instruction in South Africa. The South African education system purports to be multilingual, but most educational systems fail to use the learners' mother-tongue as languages of learning and teaching. Parents alike, adopt the attitude that mother-tongue education is not important because, unlike English- and Afrikaans-medium education, it does not pay off in terms of economic viability. In the absence of this viability, the stigma associated with mother-tongue education in the African languages, lingers on and has, consequently, impeded efforts to promote African languages as media of learning and teaching.

Other research findings indicate that students are more successful in acquiring second language literacy if they have already mastered strategies for negotiating meaning in print in their first language.

One of the tasks that language officials in South Africa need to undertake, is to persuade parents that the answer to their needs and those of their children lies in the language of learning that their children know well, together with high-quality teaching of English as subject.

The mother-tongue needs to be promoted, not just for itself but for the language experience and knowledge that would carry over into the acquisition of English language skills. In other words, the mother-tongue and culture need to be promoted in order to advance the English language. Research has shown that where the mother-tongue is the dominant instructional medium, supported by an L2, best educational results are obtained. First language competence at a high level is essential to effectively develop superior skills such as negotiating meaning, managing information, identifying and analyzing problems and formulating solutions.

Research has shown, that instruction through the child's mother-tongue can be beneficial for academic performance, even for their performance in English. Students learn better when they can use a familiar language for acquiring new knowledge. The research also showed that the use of a language of instruction which is unfamiliar to most learners is a recipe for increased inequality.

Every child should have the right to learn the mother-tongue fully and every child should have the right to choose when he/she wants the home language in all official situations.

Recommendation 2

Supporting learners and providing options for them to progress through the educational process.

Motivation

The first language should be built upon through a process of additive bilingualism. In South Africa's educational system, learners whose L1 is not English, generally struggle to cope in class. They may battle to come to terms with aspects inherent in a language that contains a universe of meaning and action foreign to their own personal experience. Learners need to be offered options for and encouragement to aspire to progress through their schooling into higher education through the medium of their own languages, while at the same time providing access to and effective acquisition of additional languages such as English or even a third language.

The first language could be used as a stepping-stone. Once the mechanics of reading and writing have been acquired in the L1, the learners are expected to use their newfound knowledge in support of learning an L2. The problems of using the L2 as a medium of instruction, would then be solved.

Since language is such a crucial means by which to gain access to higher levels of knowledge and skills, proficiency in English should already be addressed as early as the preschool level and should not be postponed until tertiary education centres have to intervene.

The establishment of intervention centres should be the last resort to intervene with the learners' poor proficiency in the medium of instruction. Should the learner however, not be proficient in the medium of instruction at tertiary level, the necessity of such language centres is essential to equip and improve them with the necessary English skills in writing, speaking, reading and listening.

Recommendation 3

Developing a fully multilingual education system.

Motivation

The implementation of a fully multilingual education system, does not simply mean offering the indigenous languages as subjects, nor does it mean

tolerating code-switching in the classroom. Rather, it means developing each of the nine indigenous South African languages to the point where it could function like English and Afrikaans, as fully-fledged languages of learning and teaching.

The challenge facing higher education is, to ensure the simultaneous development of a multilingual environment in which all our languages are developed as academic/scientific languages, while at the same time ensuring that the existing languages of instruction do not serve as a barrier to access and success.

The language policy for higher education then outlines two potential solutions. The first is to develop South African African languages as academic/scientific languages for use in instruction at higher education institutions. The second is to develop students' proficiency in English.

The real solution to the problem lies with the South African schooling system. Rather than vaguely encouraging higher education institutions to offer last-minute intervention strategies, the Ministry and Department of Education should be directing massive amounts of energy and expertise to improving proficiency in English at all levels of the schooling system, so that by the time learners matriculate, they have sufficient ability in English to succeed.

Multilingualism must be promoted and the other South African languages must be researched and developed, but it is equally important that an intensive, nation-wide campaign be launched to make all South Africans proficient in English (in addition to whatever other languages they speak).

Recommendation 4

It is essential to develop an appropriate training course for L2MI (Second Language Medium of Instruction) content subject teachers. Effective training in L2MI is one of the most important factors in improving the level of academic literacy in South African learners.

Motivation

It is generally accepted that educators of English play a leading role in providing learners with the knowledge, skills and understanding they need to read, write, speak and listen effectively. However, research has shown that all educators have a stake in effective literacy. Learners may fail to understand academic concepts through the language they are still learning because their subject content lecturers are incapable of assisting them to do so.

- Even if programme organisers are faced with the reality of a national policy limiting the amount of course work that can be required for initial teacher certification, administrators and programme organisers should realise that, at least for the near future, extensive training in L2MI should prevail over some of the more generic courses.
- The linguistic, methodological, and presentational skills required for effective English medium of instruction should be standardised to enable training institutions to design appropriate training courses.
- L2MI training should be compulsory for all teacher trainees. First language speakers who do not require a language development course, still need to complete a course focusing on the methodological and presentational skills required for effective L2MI. Research stated that first language trainees are often singularly unaware of English grammar and may need to receive training in what he calls pedagogic grammar. Not only do they need to become acquainted with pedagogic grammar but they should also be made aware of contrasts with their pupils' mother-tongue.
- Pre-service teachers should be trained for at least three consecutive years. Programme organisers and administrators need to be made aware of the fact that language skills are highly perishable and will deteriorate unless frequently used. This implies that language courses need to be extensive and ongoing, spanning the four years required for

obtaining a pre-service teaching qualification. An integrated course encompassing training in language development, methodological and presentational skills, should ensure that students receive consistent and intensive language training.

- Subject content lecturers at teacher-training institutions should become involved in the teaching of language skills in the content classroom. The subject classroom at the teacher-training institution is the one place where subject lecturers can help teacher trainees deconstruct the language of their text-books, thereby also enabling them to develop the academic language required for teaching their subjects through the medium of English.
- L2MI language specialists should be trained to assist L2MI teachers on-site in schools or districts. It is recommended that L2MI language specialists complete an Honours Degree in language education that focuses on comprehensive knowledge of the language methodology and presentational skills required by L2MI teachers from different subject areas. Assistants could, after graduation, be employed by one or more schools from the same district. In contrast with workshops and short courses that are notorious for the fleetingness of their influence, language assistants may have an ongoing and consistent effect on the teaching of L2MI content subject teachers by providing on-site training, advice and feedback to L2MI subject content teachers. This may prove to be a useful and effective intervention strategy for improving L2MI in South Africa. Upgrading teachers' proficiency and skills will have an effect on learners' attainment of academic literacy.

Recommendation 5

In-service training should be introduced for all educators who have to teach through the medium of English as a second language.

Motivation

The above mentioned educators should be required to obtain a qualification in English as a medium of instruction. This would involve training in the required language, methodological and presentational skills. A language proficiency certificate should be issued once adeptness has been assessed and found satisfactory.

6.5 RECOMMENDATIONS FOR FURTHER RESEARCH

This research indicates a need for further research on the following aspects:

- Students' perceived language ability versus real language ability.
- Bridging the gap between communicative English and academic English.
- Training programmes for L2MI (Second Language Medium of Instruction) content subject educators.
- Developing continuous in-service training courses for the above.

6.6 SUMMARY

The research gives an overview of the influence of the medium of instruction in South Africa's educational system. While there are seen to be socio-economical advantages of communicative fluency in English, these benefits must be contrasted against the disadvantages. By making the majority of our learners study through the medium of a second language, we are probably under-developing their mother-tongue, stunting their intellectual development, creating negative attitudes towards the L1, and causing them to come a distant last in their academic performance.

The results in this research indicated, that perhaps the issue of a language medium of instruction should be considered more seriously and more urgently. This study underlines what is generally known but seldom articulated, namely, that in a bilingual educational system, mother-tongue education is essential if we want to provide all learners with similar choices and opportunities.

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ADDENDUM A
LETTER FOR PERMISSION



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

SCHOOL OF EDUCATIONAL SCIENCES

To whom it may concern

This questionnaire is aimed at collecting data necessary to support the preliminary study undertaken to determine whether the medium of instruction as determinant of the education system, has an influence on throughput at the Vaal University of Technology.

Your participation in this exercise will enable the researcher to obtain information required for the M Ed degree at the Northwest University. Your participation will be voluntary and participants may at any time withdraw from the project. The information collected will be treated with the highest degree of confidentiality and for the purpose as it has been intended only.

The completed questionnaire will be considered as consent given for the data gathered to be used for research purposes only.

Permission was obtained from the Ethics Committee (NWU-00079-08-A2) to distribute the questionnaire.

Your response and full participation will be appreciated.

Thank you.

Yours faithfully

R Erasmus

Lecturer

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ADDENDUM B
QUESTIONNAIRE

The questionnaire consists of the following sections:

- A. Biographical information
- B. Implementation of medium of instruction
- C. Attitude towards medium of instruction
- D. Barriers related to medium of instruction

SECTION A: BIOGRAPHICAL INFORMATION

Please indicate your answer by drawing a cross across the applicable answer.

Fill in your answer at 4.

1.	Age	18-22 years	23-27 years	Older than 27 years	
2.	Gender	Male		Female	
3.	Mother-tongue	isiZulu	isiXhosa	Afrikaans	Northern Sotho
		Tswana	English	Tsonga	Southern Sotho
		Swati	Venda	Ndebele	Other
4.	Residence:	Area/Suburb			
		Town/City			
		University residence			

SECTION B: IMPLEMENTATION OF MEDIUM OF INSTRUCTION

Please indicate the extent to which you agree with the following statements by means of a cross

(x). There are no right or wrong answers.

	Strongly agree	Agree	Disagree	Strongly disagree
14. If given a choice I would prefer my home language as medium of instruction.	1	2	3	4
15. English as a medium of instruction gives the learner a clear competitive advantage in respect of the job market.	1	2	3	4
16. Mother tongue as medium of instruction positively affects my learning.	1	2	3	4
17. I would prefer to make my own personal choice in respect of my own medium of instruction.	1	2	3	4
18. True multilingualism is possible only by way of instruction via the medium of English.	1	2	3	4
19. English second language as medium of instruction positively affects my learning.	1	2	3	4
20. It would make educational sense to replace English by the mother tongue as an instructional language.	1	2	3	4
21. The use of the mother tongue as medium of instruction would benefit the learners' degree and speed of learning	1	2	3	4
22. Mother tongue as medium of instruction negatively affects my learning.	1	2	3	4

	Strongly agree	Agree	Disagree	Strongly disagree
23. English second language as medium of instruction negatively affects my learning.	1	2	3	4
24. Since 1994 a marked change has been seen regarding the free choice of the medium of instruction	1	2	3	4
25. The sole use of the mother tongue as medium of instruction is a barrier in the way of scholastic achievement.	1	2	3	4
26. The English used for academic purposes is different from the English used in everyday social communication.	1	2	3	4

SECTION C: ATTITUDE TOWARDS MEDIUM OF INSTRUCTION

Please indicate the extent to which you agree with the following statements by means of a cross (x). There are no right or wrong answers.

	Strongly agree	Agree	Disagree	Strongly disagree
1. Specifically prepared textbooks in all ethnic languages are available to the majority of learners.	1	2	3	4
2. I am happy with the fact that my language of instruction at my institution is chosen for me.	1	2	3	4
3. The second language is acquired at too late a stage in life.	1	2	3	4
4. English as medium of instruction is essential for academic performance.	1	2	3	4

	Strongly agree	Agree	Disagree	Strongly disagree
5. The learners' academic performance would improve markedly if English as a second language is learnt alongside the mother tongue from an early childhood.	1	2	3	4
6. Bilingualism will be greatly enhanced should the teacher use another language as a second language parallel to the mother tongue.	1	2	3	4
7. More language experts should be provided at each school.	1	2	3	4
8. Learners should try to avoid seeing either medium of instruction from a political point of view and rather look at it from an academic perspective.	1	2	3	4
9. Learning would be improved if the acquisition of the language of instruction is learnt only bit by bit.	1	2	3	4
10. Learners should be introduced to a second language only after the first language has been fully mastered.	1	2	3	4
11. Proficiency in English (spoken and written) holds a prominent place in the curriculum of the institution I attend.	1	2	3	4
12. I began to acquire a second language before ten years of age.	1	2	3	4
13. Spoken language is more important than written language acquisition.	1	2	3	4
14. I have tried to learn a classical language such as Latin or Greek.	1	2	3	4
15. I experience greater satisfaction from reading than from speaking English as a second language.	1	2	3	4

	Strongly agree	Agree	Disagree	Strongly disagree
16. It is academically advantageous to acquire a good knowledge of both a second language and first language.	1	2	3	4
17. In the process of mastering and developing cognitive skills, learners must practise their listening, reading and speaking abilities.	1	2	3	4

SECTION D: BARRIERS RELATED TO MEDIUM OF INSTRUCTION

Please indicate the extent to which you agree with the following statements by means of a cross (x). There are no right or wrong answers.

	Strongly agree	Agree	Disagree	Strongly disagree
1. I believe that English as medium of instruction is a barrier in my academic achievements.	1	2	3	4
2. Governmental language policies in respect of the language medium of instruction interfere in the learner's choice of his/her language instruction.	1	2	3	4
3. The great diversity of ethnic groups in South Africa is problematic in education.	1	2	3	4
4. Multilingualism often causes the languages to interfere with each other.	1	2	3	4
5. The many ethnic social barriers or borders often negatively affect academic achievements.	1	2	3	4

	Strongly agree	Agree	Disagree	Strongly disagree
6. The fact that so many laws have been made regarding the learning of especially English and Afrikaans, is a great drawback for second language and third language learners.	1	2	3	4
7. Any scholastic under-achievement occurs because learners are subjected to instruction in a second or a third language tongue.	1	2	3	4
8. Scholastic under-achievement occurs because the learner is subjected to a variety of language media in the teaching environment.	1	2	3	4
9. To express myself meaningfully in a language other than the mother tongue makes learning extremely difficult for me.	1	2	3	4
10. The use of the mother tongue alone as medium of instruction is a barrier in the way of scholastic achievement.	1	2	3	4

ADDENDUM C
LETTER FOR PERMISSION TO CONDUCT RESEARCH AT VUT



Vaal University of Technology

Private Bag X021, Vanderbijlpark, 1900, South Africa, Tel: 27 16 950 9000, Fax: 27 16 950 9800, E-mail: www.vut.ac.za

Date: 1-07-08

Name: MAGDALENA RYNGETTE ERASMUS

REQUIREMENTS FOR PERMISSION TO BE GRANTED TO CONDUCT A RESEARCH PROJECT AT THE VAAL UNIVERSITY OF TECHNOLOGY

- Copy of structured questionnaire to be provided to the Dean of Research.
- A list of policies/documents you require to review must be provided to the Dean of Research.
- Approval must be obtained from the Executive Committee of the Central Research Committee/Rectorate member via the Dean of Research.
- The following forms need to be completed:
 - Request by Researcher for Access to the Vaal University of Technology Confidential Data.
 - Oath of Secrecy
 - Oath of Secrecy of Supervisor/Promoter
- It is not compulsory for staff to provide information/complete questionnaires it is done voluntarily.
- A copy of the findings/report must be submitted to the Dean of Research.

Erasmus
Signed (Researcher)

Approval by Prof HA leuw DVC Academic

Approved



Rejected



Signature

Date

7/08/08

