

## **CHAPTER 2**

### **RESEARCH AND SOURCES: A SURVEY**

#### **2.0 INTRODUCTION**

This chapter presents a survey of the research and sources relevant to the present study. Some of the controversies, paradoxes and difficulties (theoretical, sociopolitical and practical) perceived to exist in this field of research will be explored. Therefore, much of the discussion will be related to questions about: bilingual education and cognitive development; the sociopolitical background to language teaching and applied linguistic research in South Africa; and the teaching and learning of expository writing skills, with specific reference to Zulu. Reference will also be made to sources underpinning the analysis of the corpus in terms of the three hypotheses (1.3.2).

#### **2.1 BILINGUAL EDUCATION AND COGNITIVE DEVELOPMENT**

A discussion on theories which underpin the debate about bilingual education and cognitive development has bearings on questions raised in chapter 1 (see 1.1). These theories are examined within an historical context and relate to a major concern of this study, which is to gain insights into bilingual programmes which might facilitate the transfer of cognitive linguistic proficiency across a bilingual's two languages (see in 1.1.3).

Many studies on the relation of bilingualism to cognitive development have been controversial. From Peal and Lambert's paper of 1962 to Rossell and Baker's survey in 1996, international studies have shown the polarisation of researchers on one side or the other. The following are argued to have contributed to the controversy: (1) opposing ideologies (e.g. of the United States of America and Canada); (2) studies on the relation between bilingualism and cognitive development, (3) bilingual programmes, and (4) research findings on the efficacy of bilingual education. These points will be discussed from the perspectives of, among others, Peal and Lambert (1962), Baker (1988), Collier (1989), Rossell and Baker (1996), the California State Board of Education's Policy Advisory (1997), Cummins (1998), Hakuta and Baker (2000-1), and McCabe (2004).

### **2.1.1 Opposing ideologies**

Differences between the political ideologies of Canada and the United States, countries with large populations of ESL (English Second Language) speakers, are seminal to the argument about the efficacy of bilingual education generated by Rossell and Baker's (1996) findings that LEP (limited English proficient) students attending transitional bilingual programme are at risk (see below 2.1.2).

Baker (1988) points out that while the United States of America seeks commonality, Canada seeks plurality. This writer continues: "Canada has the goal of bilingualism and biculturalism. The vision of a unified nation wrought out of diversity is an American dream. The vision of Canada is to celebrate its multiple language heritage by encouraging bilingualism and multiculturalism" (1988:110). The American stance on achieving commonality is endorsed in a statement by the Californian State Board of Education that "the primary goal of all [bilingual] programmes under this article is, as effectively and efficiently as possible, to develop in each child fluency in English" (Crawford 1997:1). Accordingly, many American bilingual programmes have been what Cummins describes as "quick-exit transitional" programmes designed for the assimilation of minority populations into the majority, i.e. monolingualism over bilingualism. Such programmes, argues Cummins, are problematic and probably contribute to Rossell and Baker's findings (1996) that the underachievement of bilingual students in America is synonymous with bilingual education (Cummins 1998:1-2).

It is important to note that the Language in Education Policy, which calls for "the promotion of multilingualism and multicultural diversity through developing the official languages [in South Africa]" (1997:1), is more ideologically aligned with the Canadian vision.

### **2.1.2 Studies on the relationship between bilingualism and cognitive development**

An overview of studies into the relationship between bilingualism and cognitive development illustrates the controversy about the value of bilingual education.

It could be argued that Peal and Lambert's (1962) study regenerated debate about the relationship between bilingualism and cognitive development. This research study in

Montreal at six middle-class French schools, comprising two groups, one monolingual and one bilingual, presented findings antithetical to earlier findings, and also to what the researchers expected (1962:7). Peal and Lambert note their “finding that a group of bilingual children scored higher on nonverbal intelligence tests than did a group of monolinguals runs counter to previous studies in this area and to the original expectation of this research” (1962:13). Earlier studies (for example: Saer in 1922, Jones and Stewart in 1951, and Levinson in 1959), as examined in Peal and Lambert, showed that “bilingualism had a detrimental effect on intellectual functioning” and that “the bilingual child is confused and hampered in his performance” (1962:1). However, in Peal and Lambert’s estimation, each of these projects was flawed in terms of controls over variables and methods of assessment. In their study, therefore, the two groups were carefully matched in socioeconomic class, sex, age, own and parents’ attitudes to English and French. Also, each individual was measured on the degree of bilingualism, with balanced bilinguals (i.e. learners identified as having approximately equal skills in both languages) being chosen for the bilingual group. The two groups were then compared in terms of (individual) verbal and non-verbal intelligence tests, and teachers’ ratings on a five-point scale of achievement: in general, in French, in English and for marks in French for *dictée*, *lecture* and *composition* (1962:10).

Baker describes Peal and Lambert’s work as a catalyst: “a major turning point in the IQ and bilingualism issue and a major step forward in the history of bilingual research” (1988:16). This research marked the end of an old era, “a move away from the ‘monistic’ notion of IQ to the ‘pluralistic’ notion of a multi component view of intelligence and cognition” (1988:20).

In the two decades following Peal and Lambert’s work, controversy did continue. However, debate was not so much about the findings that bilingualism (under certain conditions) can be beneficial to cognitive development, but rather about the types of programmes implemented; about the time to be spent learning an additional language (AL) so as to achieve academically in that language; the optimal age of entrance into and exit out of an AL programme, and, of course, the methodology and systems of measurement used by the researchers.

Collier's (1989) synthesis of research into academic achievement in a second language describes many studies such as Malherbe in 1978, a South African study, Skutnabb-Kangas in 1979, a Swedish study, USA studies such as those by Collier in 1987, and Canadian studies such as those by Cummins in 1981 and 1984, Cummins and Swain in 1986, Genesee in 1987, and Swain and Lapkin in 1981. The researchers are unanimous in their findings. The studies show that in order for an AL speaker to reach the level of average academic achievement by native speakers, the following are necessary: Bilingual learners should attend the following kinds of programmes:

- (a) those that provide additive bilingualism in a structured immersion situation. A structured immersion programme, described by Baker (1998), involves language minority pupils being taught by teachers fluent in that minority language (see 2.1.3a below);
- (b) those that provide a period of at least four to seven years in an additive bilingual situation, i.e. not an early-exit programme. In an early-exit situation, primary school learners are placed in an AL programme in which no primary language support is offered, and
- (c) those that provide opportunities for late rather than early immersion, in accordance with the threshold hypothesis (see 2.1.4c). This hypothesis predicts that:

there may be a threshold level of linguistic competence which a bilingual child must attain both in order to avoid cognitive deficits and allow the potentially beneficial aspects of becoming bilingual to influence his cognitive growth (Baker 1988:25).

Further, research projects which are longitudinal in design, on a large scale and which use standardised measures of reading and language tests were found by Collier to be the most reliable.

Findings by Lambert and Tucker in the St Lambert experiment in 1972 showed that further affective requirements are needed for success of a bilingual programme: notably that community and parental involvement in bilingual programmes is important for success (Baker 1988:94). This prerequisite accords with the second of Cummins' three requirements for a well-implemented bilingual programme, that there

is a commitment to:

- (1) promote, to the extent possible, an additive form of bilingualism; (2) collaborate with culturally diverse parents and communities so generating a sense empowerment; and (3) instruct in ways that build on bilingual students' personal and cultural experience (i.e. their cognitive schemata) (Cummins 1998:8).

These findings on the bilingualism-cognitive development relationship were supported by many studies conducted in the 1990s. For example, studies by researchers such as Lasagabaster Herrerte in 1997, and Sierra and Olaziregi in 1989 and 1991, documented a moderately strong correlation between bilingual students' first and additional language literacy skills (in dual-language development programmes) even though the two languages were very dissimilar (English/Japanese; English/Chinese) (in Cummins 1998:5). Fitzgerald's large scale study of cognitive reading processes among ESL learners in 1995 supported the common underlying proficiency model of bilingual proficiency (CUP) and the contention that "native-language development can enhance ESL reading" (in Cummins 1998:5). Also, Ramirez's and Beykont's studies of disadvantaged, segregated, low income, inner city-living ESL students (in 1991 and 1994 respectively) showed that "well-implemented developmental (i.e. late immersion) bilingual programmes can achieve remarkable success in promoting grade-level academic success for bilingual students" (in Cummins 1998:17).

According to Hakuta and Baker, as a result of positive findings, during the 1960s and early 1970s, a commitment was made in the United States to bilingual education. In 1968 the Bilingual Education Act was passed, providing "a financial incentive for school districts to implement bilingual education" for limited English proficient students (2001:2). However, since the mid 1980s, critics in the United States have questioned the effectiveness of bilingual education and the underachievement of many bilingual students. Carson et al suggest that the transfer of literacy skills may not be as automatic as Cummins claims (1990:247). And, in her review of the bilingualism debate, McCabe notes that critics (such as Porter, Baker and Rossell and Baker) argue "that the [bilingual] approach keeps students in a cycle of native-

language dependency that ultimately inhibits significant progress in English-language-acquisition” (2004:2).

More specifically, Rossell and Baker’s study in the United States of America, to “determine whether transitional bilingual education is the most effective instructional approach for limited English proficient (LEP) children if the goal is their highest possible achievement in the English language and in subjects tested in English” (1996:8), found that “the *risk* of academic deficiency in English is greater for transitional bilingual education (TBE) than for all-English instruction” (1996:43). Only 22% of the methodologically acceptable studies identified by Rossell and Baker (only 72 in all), showed TBE to be better than regular classroom instruction (i.e. all-English).

A brief examination of Rossell and Baker’s paper is important to this study, since its publication resulted in the passing of anti-bilingual measures in California, Arizona and Massachusetts, and may have implications for education choices made in South Africa.

Rossell and Baker discuss the continuing debate in applied linguistics and examine the underlying theories used by opponents and proponents of bilingual education to support their arguments. These researchers argue that ideological bias is at the core of the debate. They note that, on the one side, proponents quote “the facilitation theory” (i.e. that children should be taught in their native tongue because there is a facilitating effect of the primary language on additional language learning in accordance with the threshold hypothesis) to argue for TBE; and, on the other side, opponents quote the time on task theory (i.e. that learning English is determined almost entirely by time spent studying English) to support their argument that TBE is a waste of time and money (1996:30).

McCabe (2004) reports that many applied linguistic researchers (such as Cummins 1998; Greene 1998; Krashen 1999; Hakuta and Baker 2001) contest the findings described in Rossell and Baker’s paper. And, in spite of the papers written and those presented to the Californian State Board of Education (by Cummins 1998; Hakuta and Baker 2001) Proposition 227 (largely eliminating bilingual education) was passed

into Californian law in 1998. Arizona voters followed suit in 2000 by passing Proposition 203 and, in 2002 voters in Massachusetts also elected to largely eliminate bilingual education.

McCabe writes that the debate continues and, because of the Californian and Arizonan districts' confusion over the intricacies of law combined with their varying strengths of commitment to one method of teaching English over others, it has been difficult to gauge the influence of propositions 227 and 203 on the achievement of language-minority students (2004:3-4). Hakuta and Baker (2001) and Cummins (1998) are in agreement with McCabe that confusion is fuelling the argument about bilingual education. These researchers cite the lack of agreement on key terms used by applied linguists as being a principle reason for the continuing controversy.

In order to contextualise the present study within the debate about the effectiveness of bilingual education, the bilingual programmes described by applied linguists (such as Baker 1988; Collier 1989; researchers writing for the English First Foundation Issue Brief 1997; Cummins 1998; Hakuta and Baker 2001; McCabe, 2004) will be discussed. It is hoped that this will assist with a major concern of this study, i.e. to gain insights into bilingual programmes which might best facilitate the transfer of CALP-related skills across a bilingual's two languages (see 1.3.3).

### **2.1.3 Bilingual programmes**

Key terms used in applied linguistic research will be discussed: firstly, through a description of the four main bilingual programmes in which English is the relevant additional language: (a) structured immersion, (b) transitional bilingual education, (c) English as second language and (d) English immersion programmes; and secondly, through an examination of some models and hypotheses associated with bilingual education.

The main differences between the four programmes suggested for LEP students may be described in terms of the following: primary language acquisition; additional language acquisition; student age at time of exposure to the additional language; the language of instruction at school, and academic achievement. The question of academic achievement will be discussed below in 2.1.5.

### **2.1.3(a) Structured immersion**

Structured immersion programmes, according to Baker (1988), Cummins (1998), and McCabe (2004), are those which provide additive bilingualism (where primary language academic support is continued alongside an AL teaching-learning situation) and are designed for late immersion (where introduction of the AL as medium of instruction takes place at about Grade 7). Here, language minority pupils are taught by teachers fluent in that minority language using a curriculum structured so that prior knowledge of the AL is not assumed while subjects are taught. Pupils are allowed to talk to each other and the teacher in their primary language, but the teacher will generally reply in English. The goal is for students to become academically proficient in both languages over a period of time (five to seven years to match the academic skills achieved by first language learners). The students, in effect, learn AL and content simultaneously (Baker 1988:82). Such a bilingual programme is advocated by the South African Language in Education Policy Paper and defined as a “two-way immersion programme” since the home language is maintained “while access to the effective acquisition of additional language(s)” is provided (1997:1).

#### **(i) Additive bilingualism**

Additive bilingualism is contrasted with subtractive bilingualism, in which “the language of instruction [AL] is likely to replace the children’s primary language” (Richards et al 1995:4). In contrast to subtractive bilingualism, additive bilingualism is a form of education in which the primary language is maintained and supported within an AL teaching and learning situation. It is argued that such programmes support cognitive academic growth in the AL and counteract the negative effects of low prestige bilingualism. Low prestige bilingualism is associated with the “feelings of inferiority and lower status” which may be attached to minority language usage (Baker 1988:15). (For further discussion, see 2.2.2 on the “straight-for-English” debate).

#### **(ii) Late immersion bilingualism**

In late immersion bilingual programmes, the introduction of the AL as medium of instruction takes place at about Grade 7, by which time primary language acquisition has largely taken place. However, because primary language acquisition is neither an



easy nor a quick process, such programmes would probably include continuing cognitive development in the primary language beyond Grade 7.

### **2.1.3(b) Transitional bilingual education (TBE)**

Unlike structured immersion, in which the goal is bilingualism, the goal of transitional bilingual education (TBE) is monolingualism. Baker (1988) defines TBE as a programme in which: “language minority students are taught in their home language (temporarily) until their English is good enough for them to participate in a mainstream classroom. While minority language literacy may be included as a school subject, the aim of transitional bilingual education is for the use of the home language to decrease in direct proportion to increasing use of English in the classroom. The reasoning is that, unless children’s skills in English are quickly established, they are likely to fall behind their majority language peers in various curriculum areas” (1988:82). Such programmes are similar to those designed by the Department of Education and Training for “Bantu” education in South Africa (see 2.2 below).

### **2.1.3(c) English as second language**

English as second language programmes from Grade 4 onwards involve ESL students being placed in regular (English language) classrooms for most of the school day. During part of the day however, they receive extra instruction in English. The child’s home language is rarely used in ESL classrooms; when it is used, it is usually for informal, non-instructional uses. Further, an ESL teacher is “not required to speak or understand the children’s own language” (English First Foundation Issue Brief 1997:1).

### **2.1.3(d) English immersion**

English immersion, also known as submersion programmes, calls for the placement of limited English proficient (LEP) students in classrooms where only English is used. No special attempt is made to help overcome the language problem, and the children’s first acquired language (primary language) is not used for instruction. For this reason, this approach is often described as the “sink or swim method” (English First Foundation Issue Brief 1997:1). It could be argued that English immersion is the model presently being experienced by the additional language learners of English attending ex-Model C schools in South Africa.

Research shows that, in many cases, structured immersion programmes, in which students are not forced to give up their primary language and switch to English (AL), are the most successful in terms of AL acquisition. As noted (see 1.2.2), Lasagabaster Herrete's and Fitzgerald's research reveals that "the effective development of primary language literacy skills [i.e. CALP] can provide a conceptual foundation for long-term growth in English literacy skills" (in Cummins 1998:4-5). It is fortunate for the millions of second-language learners of English in South Africa, therefore, that such bilingual programmes are advocated by the Language in Education Policy Paper (1997). It could be argued that it is also fortunate for the more than 146,000 ESL learners in ex-Model C schools (Government Education Department 2003) that the Home Language Project is attempting to implement a programme which addresses mother-tongue loss and its detrimental effects (see 1.2.5).

#### **2.1.4 Bilingual education: models and hypotheses**

A discussion about the two models of proficiency, the common underlying proficiency (CUP) and the separate underlying proficiency (SUP) models, described by Baker (1989) and Cummins (1998), will highlight differences between the bilingual programmes (discussed above at 2.1.3). The hypotheses associated with these models will also be discussed.

##### **2.1.4(a) Common underlying proficiency of bilingualism (CUP)**

The common underlying proficiency of bilingualism (CUP) relates to the notion of "a dual iceberg" or "Think Tank" model of cognitive functioning and refers to "the cognitive academic proficiency that underlies academic performance in both languages" (Cummins 1998:4). In this model, although the linguistic contents of the Think Tank often retain specific primary language or AL characteristics, "the same mental expertise underlies performance (namely, processing of input and output) in both languages" (Baker 1988:172). In other words, "common cross-lingual proficiencies underlie the [...] different surface manifestations of each language" (Cummins 1986:82). According to this model, it would therefore be argued that an additive approach to bilingual education is needed and that "spending instruction time teaching through primary language would entail no academic cost for students' academic development in the majority language" (Cummins 1998:4).

#### **2.1.4(b) Interdependence hypothesis**

The interdependence hypothesis, predicting that the development of AL school language is partially dependent upon the prior level of development of primary language school language, is closely connected to the CUP model of bilingual proficiency. As noted, this hypothesis proposes that:

To the extent that instruction in Lx is effective in promoting proficiency in Lx, transfer of this proficiency to Ly will occur provided there is adequate exposure to Ly (either in school or environment) and adequate motivation to learn Ly (Cummins 1998:4).

#### **2.1.4(c) Threshold hypothesis**

Also associated with the CUP model of bilingual proficiency is the threshold hypothesis. Although this hypothesis supports the interdependence hypothesis, it proposes that:

there may be a threshold level of linguistic competence which a bilingual child must attain both in order to avoid cognitive deficits and allow the potentially beneficial aspects of becoming bilingual to influence his cognitive growth (Baker 1988:25).

This hypothesis therefore raises further questions about age and primary language acquisition, and is used to argue for the superiority of late immersion bilingual programmes.

#### **2.1.4(d) Separate underlying proficiency model of bilingualism (SUP)**

In contrast to the CUP model, the separate underlying proficiency (SUP) or balance model of bilingualism asserts that “the first and additional languages are kept separate in two balloons inside the brain” (Baker 1988:171). Instead of the concept of a unitary-functioning Think Tank, the two balloons are apart and not interactive. This means that when knowledge is “blown” into the primary language balloon, it will inflate at the expense of the AL balloon. Therefore, according to this model, it would be argued that more time should be spent learning the AL. Also, according to this model, an early exit from primary language into AL as the language of learning and

teaching is best for ESL learners. The principle extracted from the SUP model is referred to as “time on task” which is “the notion that the amount of time spent learning a subject is the greatest predictor of achievement in that subject” (Cummins 1998:10). Additionally, such a situation in which a bilingual student has no primary language classroom support is referred to as “subtractive bilingualism” (Collier 1989:511).

Therefore, on the one hand, programmes such as ESL and English immersion are closely linked with the SUP model of bilingualism while on the other, the CUP model and related hypotheses underlies structured immersion programmes. Although TBE has some connections with CUP (in terms of providing a certain amount of primary language support to LEP students) it could be argued that this type of bilingual programme has more connections with SUP. This is so because the concerns of transitional bilingual education are that AL skills are quickly established and that, in such a programme, primary language support would decrease in direct proportion to increasing use of English. In comparison, with structured immersion, where the goal is the promotion of bilingualism and bi-literacy, TBE is geared towards monolingualism, which means that an early exit from primary language, i.e. subtractive bilingualism, would be an acceptable part of the programme. It is also possible that in a TBE situation, where speed of AL acquisition is important, the time on task principle would also apply.

### **2.1.5 Research findings on the efficacy of bilingual education**

The hope is that this discussion will further assist with a major concern of this study, i.e. to investigate bilingual programmes which might best facilitate the transfer of CALP across a bilingual’s two languages (see 1.1.3).

Contesting Rossell and Baker’s findings that “the *risk* of academic deficiency in English is greater for transitional bilingual education (TBE) than for all-English instruction” (1996:43), is research by Collier (1989), Ramirez (1991) and Cummins (1998).

In her synthesis of research findings, Collier’s (1989) five generalisations about academic achievement in an additional language show the opposite of what Rossell

and Baker have found. First, in a dual-language programme where students are schooled in two languages, with solid cognitive academic instruction provided in both primary language and AL, students generally take from four to seven years to reach national norms on standardised tests. Second, in a late immersion situation, immigrants arriving at ages eight to twelve with at least two years of schooling in their home country generally take five to seven years to reach national norms. Third, in an early-exit situation, young immigrants arriving with no schooling in their primary language take longer, sometimes as long as seven to ten years to reach national norms. Fourth, in an ESL or English immersion situation, adolescent arrivals who have had no AL exposure and who are not able to continue academic work in their primary language while they are acquiring their additional language, are likely never to reach the 50<sup>th</sup> NCE (the level of performance to be reached by language minority students before leaving high school). Or these students drop out before reaching high school. Fifth, in a structured immersion situation, consistent, uninterrupted cognitive academic development in all subjects throughout students' schooling is more important than the number of hours of AL instruction for successful academic achievement in an additional language (Collier 1989:526–527).

In terms of the Language in Education Policy paper (1997), Collier's findings support the position that "an additive approach to bilingualism is to be seen as the normal orientation of the language-in-education policy" (1997:1). However, what is really happening in the schools presents a very different picture (see 2.2.2 below for further discussion). In ex-Model C schools, for example, Collier's third and fourth generalisations apply. The predicted educational outcome for many of the 146,000 ESL learners attending these schools, therefore, seems dismal.

Ramirez's (1991) research also presents opposite findings to those of Rossell and Baker. This eight-year longitudinal study (1983 to 1991) of 51 schools in California compared Spanish-speakers in three situations: (a) English submersion; (b) Early-exit bilingualism (i.e. primary language learning was limited to 40 minutes per day and target language (AL) instruction moved quickly through a bilingual approach to English as the medium of instruction), and (c) late immersion bilingualism which involved 40% vernacular until the end of Grade 6 and was followed by strong

primary language maintenance thereafter. When tested in English language and reading skills, and in mathematics in 1985, the submersion group was lowest across the board in tests and the late immersion group was easily the strongest (Ramirez et al 1991).

Cummins (1998) argues that Rossell and Baker's findings are questionable in terms of the studies they chose and the definitions they use to describe these bilingual programmes. A main difficulty in Rossell and Baker's paper, argues Cummins, is that eight of the studies chosen to investigate "the educational effectiveness of transitional bilingual education" (1996:10) are not TBE programmes. The seven Canadian programmes cited are fully bilingual programmes, taught by bilingual teachers, with the goal of promoting bilingualism and biliteracy, and the South African study, Malherbe in 1946, "strongly showed the benefits of bilingual education and his data were consistent with the interdependence principle", writes Cummins (1998:32). This choice, Cummins notes, reveals a misunderstanding of the term TBE and its underlying hypotheses. Transitional bilingual education, according to Baker (1988) and Cummins (1998), is a model based on the theoretical assumption that "increasing one language will automatically cause a decrease in the additional language" (1988:170). Therefore, in Cummins' and Baker's view, TBE is more aligned with SUP than with CUP in that monolingualism is promoted over bilingualism, subtractive over additive bilingualism and early-exit over late-exit programmes. Such practice, argues Cummins, "results in the subordination of the community in the wider society, a prime cause of academic underachievement" (1998:5).

Further, Cummins notes that Rossell and Baker's attempt to translate terms used to describe the Canadian immersion programmes into United States terminology (to facilitate their inclusion into the study) is misleading. An example used is their explanation of the "facilitation theory" which they attribute to Cummins, who claims never to have used the term. Rossell and Baker's description of the facilitation theory, which they say has two components: the threshold and interdependence hypotheses, proposes that "you have to be taught for a long time in your native tongue and you have to reach a threshold in that native tongue before you can be transitioned into English" (1996:29) is problematic, according to Cummins. The threshold hypothesis is a separate and autonomous construct, as Cummins writes. This

hypothesis was advanced to account for apparently contradictory research data concerning the effects of bilingualism on cognition (shown in the work of Skutnabb-Kangas in 1979 and Dulay and Burt in 1980) and suggests that “the levels of proficiency bilinguals attain in their two languages may act as an intervening variable in mediating the effects of bilingualism on their cognitive development” and says nothing directly about bilingual education (Cummins 1998:21). However, Rossell and Baker’s characterisation of the threshold principle, argues Cummins, might be understood as promoting programmes which follow primary language-only instruction until Grades 2 or 3 (i.e. delaying AL instruction) and then dropping students into all-English programmes. These all-English programmes, usually being taught by mainstream teachers who may have had minimal professional development in strategies for supporting bilingual students’ academic growth, are, according to research findings (also supported by MacDonald’s Consolidated Main Report of the Threshold Project of 1990 in Walters 1993) not likely to work (Cummins 1998:7). Such quick-exit programmes do not take into account the relationship between CALP (cognitive academic language proficiency) and BICS (basic interpersonal communication skills), and the fact that, despite rapid growth in conversational fluency, it takes “ESL learners from five to ten years to catch up to native-speakers in academic aspects of language” (Cummins 1998:3). Also disregarded is the fact that “conversational fluency is not a good indicator of long-term academic growth” (1998:5). Cummins argues that in a TBE situation, teachers may misjudge a student’s cognitive academic development because of his conversational fluency in the AL. This often results in a premature exit from a bilingual programme into a typical mainstream programme which would be likely to end in underachievement in both languages (Cummins 1998:5).

Cummins appears not to have any difficulties with Rossell and Baker’s discussion of the interdependence hypothesis and their agreement with the principle “that the development of skills in an additional language is facilitated by skills already developed in the primary language” (1996:27). However, in spite of this point of agreement, there is much in Rossell and Baker’s paper contributing to what the proponents describe as a misinterpretation of the efficacy of bilingual education.

Cummins' (1998) paper addresses the concerns of other researchers such as Glenn.

Glenn's comment that most bilingual programmes "lack coherent, cognitively challenging opportunities for students to develop higher order English skills", "segregate students and retain them too long outside the mainstream, with newcomers simply dumped into a bilingual class of the appropriate age level" is contested by Cummins (Glenn 1997:7 in Cummins 1998:17). He writes that Glenn's argument cannot be justified in terms of:

the existence of many well-implemented bilingual programmes where questions about segregation, teacher expectations, cognitive development and empowerment are investigated and dealt with in terms of sound educational theory (Cummins 1998:17).

Questions about bilingual education and applied linguistic research findings need also to be viewed from a South African perspective:

## **2.2 SOCIOPOLITICAL BACKGROUND TO LANGUAGE TEACHING AND APPLIED LINGUISTIC RESEARCH IN SOUTH AFRICA**

This section first explores the sociopolitical background of language teaching in South Africa and then looks at current additional language research which investigates the language of learning and teaching in South African classrooms. A number of paradoxes will be discussed, some problems identified, and suggested solutions (where applicable) will be presented.

### **2.2.1 Sociopolitical background of language teaching in South Africa**

The Language in Education Policy paper states that "the inherited language-in-education policy in South Africa has been fraught with tensions, contradictions and sensitivities, and underpinned by racial and linguistic discrimination" (1997:1).

The work of South African researchers such as Heugh et al (1995), Duncan (1994) and Walters (1993) will be discussed with the purpose of investigating some of these inherited tensions, contradictions and sensitivities. Later, the main aspects of The Language in Education Policy (1997) will be reviewed as presenting some solutions to the inherited difficulties.



Heugh's discussion (1995) records the historical events contributing to our problematic inheritance. She notes that, paradoxically, two reports (Phelps-Stokes Fund on education in Africa in the 1920s and the UNESCO report, *The Use of Vernacular Languages in Education* of 1953), confirming international support for the use of the vernacular (mother tongue), provided the National Party government "with a plausible argument in support of the mother tongue principle". Of course, this principle was consistent with Apartheid goals: separate and unequal development (1995:42).

The consequences were severe: Firstly, the widespread reaction by students, parents and teachers against the apartheid "Bantu" Education policy saw growth of the misconception that using English only as the language of teaching and learning (LOLT) is best for AL (and cognitive) development. This idea was supported by the general understanding that English is a language of empowerment, of advancement and better education. So, subtractive and transitional models, which ignored the value of indigenous languages, were fought for by students, parents and teachers, and were eventually implemented. As Heugh notes, these models reinforced the hegemony of English as well as the differential status of the majority (black) and minority (white) populations while, at the same time, undermining the "self-concept and cognitive growth of African-language speaking pupils after the initial years of first-language instruction" (1995:43). Secondly, prejudice against the DET (Department of Education and Training) and its handling of "Bantu" education, helped perpetuate certain myths which interfered with the 1992 reconstruction of the South Africa's language-in-education policy. It is still believed by many that: "young children are the fastest, most efficient acquirers of an additional language" (Collier 1989:241); that bilingualism is "dangerous" to cognitive functioning; that the "straight-for-English" choice at schools is best, and that "time-on-the-task" (see 2.1.4d) is the best way to achieve academic results in an AL. Such beliefs have made implementing the Home Language Project difficult (see chapters 4 and 5) and "dysfunctional rescuing" (helping in an unhelpful way, for example, by choosing English immersion programmes for ESL learners) continues (Robb 1995:15).

Thirdly, requests for subtractive and transitional models made in the apartheid era ignored the realities of "Bantu" education in which an important advantage of using

the mother tongue as medium in (black) primary schools, was that teachers and pupils were able to teach and learn through a language in which they were competent. Also ignored was the fact that this language policy (paradoxically) led to the enhancement of indigenous languages (Duncan 1994).

Besides inheriting the sociopolitical problems spawned by the apartheid government's education policies, the new South African Education Department was left with massive economic and resource problems: the over-provisioning of white and the under-provisioning of black state-run schools (Walters 1993:180). This meant that in contrast to the white (Model C) schools (rich in physical facilities, materials, equipment and well-trained teachers), the black schools (urban and, particularly, rural) were very poorly equipped in terms of materials and facilities, teacher training and the methods used. Here, as Walters notes, there was a "very high level of "automatic promotion" (as could be seen by pass rates (in 1991) which varied between 75% in Sub A and 87% in Standard five, when matched against a Std 10 pass rate of 39%) - another inherited problem.

With the educational reconstruction initiated in 1992, Model C schools were re-evaluated and recognised as important educational resources of the nation in spite of declining numbers and threatened closure (Metcalf 1991 in Walters 1993:178). The tremendous pressure for places by black parents and children in such schools is entirely understandable, writes Walters (1993:178).

However, as Walters notes, many problems attend such a choice: cultural, linguistic, cognitive and academic. The culture of ex-Model C schools remains essentially assimilationist and the attitude on the part of many teachers, parents and pupils is:

This is **our** (formerly white) school, reflecting **our** values and interests. You can come and join us if you can afford it and can pass our admission test (and we have a "place" for you), but don't expect us to change our curriculum, our sports or our traditions to accommodate **you** (Cross 1992:174 in Walters 1993:180).

In terms of the linguistic problems to be encountered by black pupils, the LOLT at

ex-Model C schools is English across the curriculum with “lip service” being paid to the injunction to “develop programmes for the redress of previously disadvantaged languages” (Language in Education Policy 1997:2). Such programmes at former white schools comprise Zulu and Sotho as AL lessons accommodating white beginners, while primary language speakers are required to endure the process.

As to cognitive academic development, the functioning of many black pupils at ex-Model C schools is undermined by their DET heritage. As Walters writes, difficulties experienced in working independently and deploying higher order skills are the result of poorly trained teachers following “drill” methodologies; limited access to poorly written textbooks (Langhan 1990 in Walters 1993:183) and poor content and concept knowledge and poor English vocabulary development. MacDonald estimated that first-year ESL students at Wits in 1987 had a vocabulary of around 4,000 words while Standard 3 textbooks required a vocabulary of 5,400 (MacDonald 1987 in Walters 1993:185).

In 1997, the Education Department presented its Language in Education Policy with a view to addressing problems inherited from the apartheid era. The paper acknowledges the need: (a) to incorporate “two-way immersion programmes” (which are in line with Cummins’ threshold and interdependence hypotheses in advocating late immersion additive bilingual education to enhance cognitive growth and self-esteem); (b) for teacher and parent education about bilingual education; (c) to promote the development of African languages, and (d) to ensure that the new processes are well-planned and managed within a context where the scarce human resources are shared (1997:4).

Providing some specific detail, Van Tonder quotes from the aims of the Department of Education Conference in 1998 to encourage the use of home languages as languages of learning and teaching. This conference specifically addressed prevailing myths about the current trend of favouring English as official language and the inaccurate view of many parents, that English as LOLT will empower their children, and emphasised the advantages of the use of home language as LOLT. Goals were also set to ensure that definite measures (as well as timetables for implementation) would be developed to promote and enable the use of home language as language of

learning and teaching. Further, it was taken into consideration that curriculum development should not be construed in terms of narrow economic goals, but rather in a culturally valued way of living together, and that the diversity of our people needs to be regarded as a resource for development and progress. (1998:6-11).

Because the Education Department's vision is more ideologically aligned with the Canadian than the United States goals, it follows that its goals are in line with those of the Canadian "well-implemented programmes" described by Cummins. However, because the diversity of South Africa's linguistic population is more like that in the United States than in Canada (where there are two main groups: English and French), a number of problems remain. These problems will be discussed below and are related to: (a) the variety of indigenous languages that need to be developed; (b) the different needs of urban and rural areas; (c) the reality that, although parents would prefer English as the medium, most are unable to speak or understand English well, and (d) that many teachers in South Africa are unable to speak English with confidence or fluency. Solutions to problems, when suggested, will be included in this review.

### **2.2.2 Research on the language of learning and teaching (LOLT)**

Chick's 1992 paper (adapted from a paper given in 1990) speculates on the role of English in post-apartheid South Africa and examines the problems associated with the use of English as a medium of instruction. This author argues that the symbolic value of English (seen by many South Africans as "a symbol of the struggle against the oppression of the apartheid system, and as a means of attaining political liberation and unity between the groups the apartheid system sought to divide" (Chick 1992:31) would probably ensure its choice above others as the medium of national communication and the language of learning in most schools. Chick supports this argument by quoting results of a survey conducted by the Human Sciences Research Council (HSRC) (1989) involving 1200 black people in 20 urban areas across the country, showing that "not only do urban blacks still prefer English as the medium, but [they] would like more English sooner" (1992:31).

Chick then goes on to identify problems associated with this choice. Firstly, in terms of levels of competence, a 1990 survey indicates that almost 60% of blacks are unable

to speak English (Van Vuuren and De Beer in Chick 1992:32). (Van Vuuren and De Beer's findings are supported by a more recent survey by the Pan SA Language Board which found that 45% of South Africans are unable to understand, or understand very little of the message top leaders try to convey in English.). Secondly, Chick estimates that fewer than "20% of the total group of teachers in South Africa (263 382 in 1987) are first-language English teachers, and that very few of those are qualified to teach English as an additional language or even content subjects to additional language speakers" (1992:32). And, thirdly, quoting from the main report of the Threshold Project, Chick notes that:

the apartheid system has ensured that most teachers in so-called black education do not speak English with confidence or fluency, use outmoded materials, and have almost no contact with English speakers (MacDonald 1990 in Chick 1992:33).

Chick advocates teacher education (and in-service training) and the adaptation of English courses to address these problems. He recommends that courses be adapted so as to "inform trainees about the processes of language acquisition, about the relationship between language acquisition and the development of academic knowledge and skills, and about the linguistic characteristics of the discourses of the various subject specialities" (1992:36).

In 1992, according to a policy decision of the former Department of Education and Training "the power to decide on language/s of learning and teaching was devolved to school level to be determined by parent communities for implementation in 1993" (Meyer 1993:9). So as to educate pupils, teachers and parents in their choice, in 1992, the Language Policy Research Group of the National Policy Investigation (NEPI) prepared a paper outlining the different scenarios regarding the language to be chosen as the LOLT in post-apartheid schools. Identified are two main types of policy:

- (1) the child's home language is used for the teaching of all subjects (except languages) throughout schooling - what is referred to as primary language instruction or mother-tongue instruction, and
- (2) a language that is not the child's home language (an additional language

AL) is used as medium of instruction (MOI) for all or part of the child's schooling - what is referred to as AL medium of instruction (Language Policy Research Group of the National Policy Investigation 1992:6).

Five variations on the additional language used as medium of instruction are detailed as:

- (2.a) additional language throughout schooling (i.e. the straight choice);
- (2.b) education through the medium of another language through schooling:
  - (2.b.i) initial literacy in primary language followed by education in AL – sudden transfer at beginning of predetermined school year;
  - (2.b.ii) initial literacy in primary language followed by education in AL – gradual transfer after initial literacy and numeracy in primary language;
  - (2.b.iii) initial literacy in primary language followed by education in AL – both home language and target language are used in classrooms, i.e. initial bilingualism;
- (2.c) bilingual education throughout schooling (Language Policy Research Group of the National Policy Investigation 1992:6).

Each of the five contending models is examined under headings which give information on: (a) what is meant by the particular policy; (b) a description of the policy in practice; (c) advantages of each policy; (d) disadvantages of each policy; (e) the conditions that would be necessary for each of the policies to work properly; (f) whether these conditions are met currently in South Africa; and (g) whether the conditions for success could be met in the future (1992:6). As Young notes, “while claiming to be neutral as to which model should prevail, the paper does show a clear preference [...] for a model of gradual transition” in which the primary language is solidly established as a subject and medium of instruction in the initial years of primary schooling, leading to a gradual transition into English as the medium of instruction (1995:67–68). In addition to supporting the (apartheid) DET context of schooling, the gradual policy “endorses the Cummins’ research findings that the best model is to have an initial *bilingual* policy, allowing for the primary language to be developed in tandem with the additional language” (Young in Heugh et al 1995:68). In other words, the NEPI paper provides a strong argument that cognitive, affective

and linguistic problems attend the “straight-for-English” approach.

A collection of articles by Heugh et al in 1995 examines questions about multilingual education for South Africa from the perspectives of: classroom practice; the major issues (sociopolitical and theoretical); proposals and models, and aspects of implementation. These articles attempt to provide a theoretical and practical guide for policy makers, educators and parents faced with the choices to be made, as described in the NEPI document (1992).

For example, Agnihotri, drawing on his many years of bilingual educational experience in India, calls for the “active promotion of multilingualism as a classroom resource” (1995:1). He argues that the work of Peal and Lambert in 1962, Gardner and Lambert in 1972 and Cummins and Swain in 1986 (on the positive correlation between cognitive flexibility and multilingualism) needs to be taken seriously by educators, and he challenges present (monolingual) classroom practice, and the primacy of the textbook (1995:5). However, Agnihotri’s suggestion that “a teacher who recognises multilingualism as an asset will inevitably think of ways of creatively exploiting the different languages available in a given language classroom” (1995:6) is not really helpful considering the South African inheritance of the apartheid era’s poorly trained teachers and inadequate resources.

Young’s analysis in Heugh et al of the “failure of ESL programmes” asks the question: “why do we have the demonstrably low levels of proficiency displayed by most ESL learners after such a lengthy school exposure to English?” (1995:66). This lack of proficiency is in spite of the fact that those studying English as a first or additional language spend up to 12 years learning it as a subject, as well as using it as a medium of instruction for at least eight of these years in the case of second-language learners. Young argues that the five popular suggestions about the low proficiency levels displayed by ESL learners (i.e. the result of: poor and underqualified teaching; ineffective language teacher training; low learners’ motivation; poor resources, and overcrowded classrooms) do not “tap deeply enough into the roots of the problem” (1995:66).

Young suggests that one possible explanation for the failure of ESL programmes,

might be related to the fact that “skills in the primary language are not well developed and that, consequently, education in the early years is completely in the additional language” (Appel and Muysken 1990:105 in Young 1995:66). Young notes that Cummins’ research “highlights the inadequacy of the still widespread belief [...] that first- and second-language development are independent processes in the brain” (1995:67), and that the increasing body of research in the USA and Canada “supports empirical evidence that there is a direct relationship between first-language acquisition and learning beyond and inside the classroom” (1995:66). Young then discusses Cummins’ work: the threshold and interdependence hypotheses and the two related aspects of language proficiency, CALP and BICS. Young examines two significant South African research projects which have tested the overseas theories and findings on bilingual learning. He argues that:

the Molteno Project (1976) has had success in concentrating on primary language enliteration skills in first (African) languages as part of a transition process to achieving literacy and proficiency in English, which is taught parallel with the primary language, thereby bearing out Cummins’ linguistic interdependence theory (Young 1995:67).

The Threshold Project (1990), following on the work of Skutnabb-Kangas and the Cummins threshold hypothesis, Young writes, shows evidence that “learning English as an additional language and medium of instruction must flow from the effective, solid establishment of first-language enliteration and proficiency” (1995:67).

However, undermining the positive findings of both these projects (and their potential to help improve bilingual education), are the fears held by many that first-language maintenance is the legacy of apartheid education, “wherein mother-tongue instruction was synonymous with ethnicity and racial separation and inequalities of education provision when compared with white education” (1995:67). Young (in agreement with the purposes of the NEPI document) advocates “a widespread public educational awareness campaign which would stress the importance and value of additive bilingual education for *all* South Africans” (1995:68).

De Klerk’s article in Heugh et al (1995) discusses the benefits of bilingualism over



monolingualism and looks at current research on bilingualism internationally. Importantly, De Klerk notes that there exists little indigenous research on bilingualism or on multilingualism (which is more the norm in the South African context). She recommends that our research needs to take into account complex subtleties operating in the South African context and, rightly, comments that “it is difficult to control such variables as political history, socioeconomic level, parental and learner attitudes and motivation, school experience and the culture of home and community” (1995:59). There is no doubt that researchers need to consider the differences between ours and the Northern contexts and, as De Klerk writes, ask questions about bilingualism which are as “complex, nuanced and comprehensive as possible” (1995:61).

Luckett’s article in Heugh et al (1995) cites the values of additive bilingualism, particularly those cognitive, affective and linguistic. The linguistic value of additive bilingualism is discussed in terms of its role in development of African languages. Luckett argues that such development will require:

- (a) a redefinition of what we mean by “standard English” by its additional language speakers in South Africa; (b) the development of African languages to carry cognitively-demanding content and concepts, and (c) the creation of new curricula with interactive and communicative teaching methods so that African languages can be learnt as living additional languages (1995:77).

Such developments will, of course, need financing and a great deal of research to be done before implementation.

November 1996 saw the collaboration of the South African Applied Linguistics Association in its position paper “Learning and Language Across the Curriculum”. This paper investigates the complexities of implementing the DET’s Language-in-Education policy of 1996 and agrees that Primary Language or Additional Language as LOLT should be a recommended option depending on the particular educational and community context, rather than a compulsory or prescribed route (South African Applied Linguistics Association 1996:15). To assist with the process of making a choice, the writers summarise some of the central considerations in selecting the most

appropriate language of learning and teaching. Their advice is in accordance with the threshold and interdependence hypotheses, and they present criteria for adopting one (the primary language as LOLT) or the other (an additional language as LOLT) comparatively. Their comparison has been tabulated:

**Table 1: Languages of learning and teaching**

<i>(i) Education through the medium of Primary language is appropriate if:</i>	<i>(ii) Education through the medium of an additional language may be appropriate if:</i>
a. The learners' primary language has not developed to the level where they have the conceptual and linguistic prerequisites for the acquisition of literacy skills in an Additional Language.	a. The learners' Primary Language has developed to the level where they have the conceptual and linguistic prerequisites for the acquisition of literacy skills in the AL.
b. Additional Language teachers are neither well trained nor competent in the use of the AL.	b. Additional language teachers are both well trained and competent.
c. In addition to classroom exposure, learners are not regularly exposed to and able to use the AL outside of the school environment.	c. In addition to classroom exposure, learners are regularly exposed to and able to use the AL outside of the school environment.
d. There is pressure in the home or local community for literacy or language maintenance in the Primary Language.	d. Parents freely choose instruction in the AL, expect the learners to succeed in learning that language, and expect the learners to continue to use and read the Primary Language for a wider range of functions than just "cultural".
e. The wider community views the Primary Language of the learners as having lower status than that of the AL, and the bilingual situation in society is a subtractive one. It is argued that such minority ESL learners probably have low feelings of self worth which may contribute to poor school results. This situation would be improved by schooling conducted in the Primary Language through teachers with whom they can identify.	e. The wider community views the Primary Language of the learner as having social and economic status that is as high, or higher than the Additional Language. In other words, the learners are members of the linguistic majority and the bilingual situation in the society is an additive one.

(South African Applied Linguistics Association 1996:15-16).

The writers note that while criteria (ii) (a), (b) and (c) (which suggest it might be appropriate to use an AL as LOLT) "may apply in many urban areas, and particularly in former white schools, they certainly do not apply to the majority of schools in the country" (South African Applied Linguistics Association 1996:16). They write that

for the majority of schools in South Africa, criteria (i) (a), (b), (c) and (e) “make a strong case for African languages as LOLTs for African language speakers” (South African Applied Linguistics Association 1996:15). From the perspective of this study, it could be argued that (ii) (e) (which describes a situation in which the primary language of the learner has a social and economic status equitable with the AL and the bilingual situation is an additive one) matches, in many ways, the situation in which the Home Language Project functions (see 2.2.3).

Surveys by Meyer in 1995, 1996 and 1997 attempted to “establish empirically some of the facts regarding the actual language/s of learning and teaching (LOLT) in historically black schools mainly in the Northern Province” (1997:2). These surveys reveal the tensions between the official policy chosen by school communities and the actual practice in these schools. In his 1997 survey, (larger in scope than the others and designed in such a way that candour would be assured) Meyer found that although 82% of teachers interviewed favoured a policy of English only, the reality was that 67,5% of teachers and 77,5% of students admit to coupling their use of English with a primary language. This situation is further complicated by problems with materials (which in secondary schools are only available in English), teacher’s proficiency in English and the Government’s support of “multilingualism” in the classroom. Their loose definition of the term “multilingualism”, Meyer argues, has been taken by many to mean that “it is now acceptable to employ more than one language in the classroom” (1997:16). The questions raised by Meyer about the methodology to be used in this situation, show that many more complexities have been generated by the government’s decision to devolve on parent and teacher communities the power to decide on language/s of learning and teaching to be used in schools. Meyer comments that his study, on the one hand, has raised questions for further research and investigation and, on the other, “indicated important areas of policy and policy implementation which require clarification” (1997:16).

Van Tonder’s (1998) list of suggestions for the National Education Department’s “programme-specific actions to be initiated” in many ways provides the clarity required on the important areas of policy and policy implementation. Van Tonder’s suggestions, which are related to the major concern of this study, i.e. to identify programmes which would facilitate transfer across a bilingual’s two languages, are

presented below:

- (a) The establishment of support groups that meet regularly and frequently to collaborate in creating linguistically, culturally, and developmentally appropriate programmes.
- (b) An evaluation of classroom environments and making any necessary changes.
- (c) The development of family-centred programmes (to involve and educate parents and teachers).
- (d) Educating teachers, parents and learners to have high language expectations by consistently providing active learning environments that are academically challenging. The academic climate should encourage educational success for all learners.
- (e) The creation of language-rich environments. Provision should be made for learners to experience meaningful reading, writing, speaking and listening with good models of language use.
- (f) Educating teachers, parents and learners to understand the difference between behaviours that naturally occur during additional language acquisition and those that indicate learning problems (Van Tonder 1998:6–7).

In conclusion, this section reflects the great complexity of South Africa's sociopolitical background regarding language teaching. Also reflected, as a consequence of this background, is the wide variety of choices to be made in terms of language/s of learning and teaching to be used in schools. Since the decisions to be made devolve on a largely uneducated population, parents, teachers and children who have no knowledge of applied linguistic research, the new Government Education Department will have many problems to contend with in the future. These difficulties will also be exacerbated by the need of finances to redress the problems inherited from the apartheid era: under-equipped schools, poorly trained teachers and inadequate resources.

### **2.2.3 The Home Language Project (HLP)**

In order to summarise the theoretical and sociopolitical domains of this study, the Home Language Project will be discussed in terms of the project's goals. It will be

argued that these goals are closely aligned with both Van Tonder's (1998) list of programme-specific actions to be initiated and with Cummins' three main requirements for well-implemented programmes which would promote bilingual students' academic achievement.

It must be noted here that the HLP has been generated to help Zulu and Sotho students attending urban schools. However, it is possible that this model could be used to assist students with a wider range of language backgrounds attending rural and former DET schools.

The overriding purpose of the HLP is to address the problem of mother-tongue loss in African language speakers attending ex-Model C schools, through providing practical and cost-effective programmes in which additive bilingualism can be fostered (Owen-Smith 2003:1). Thus, the Home Language Project focuses on developing the following in the non-native speakers of English: improving general cognitive, metacognitive and communicative abilities; facilitating the transference of cognitive academic skills between learners' primary language and AL (i.e. in accordance with the interdependence hypothesis); fostering psychological development through helping learners grow in confidence and pride in their language and culture and, supporting and developing black South African languages. The practicalities and cost-effectiveness of HLP is ensured by two teachers, one dealing with Sotho languages and the other working with the Nguni languages, who spend a day in each HLP school once a week. These teachers use the primary language as LOLT and teach cognitive academic skills through a cooperative methodology and using "DART" (Directed Activities Related to Text), which require higher-order reading skills, the integration of the four language skills (i.e. speaking, listening, reading and writing) to reorganise and transform information from one form to another (e.g. from expository text to spray diagram or table, and vice versa). The programme involves five main elements:

- (1) providing one special, intra mural, home-language class per week to learners in Grades 0 to 10;
- (2) setting up a library of African-language books, magazines and newspapers and encouraging reading for pleasure in the home-language;
- (3) assisting teachers of additional-language classes to maximise the

value of these classes for home-language learners by involving them in the teaching of an African language to their English-speaking peer group via multi-level teaching; (4) informing parents on why and how to support the home language at home. This element, of course, relates to the importance of fostering psychological development through helping learners grow in confidence and pride in their language and culture, and (5) informing teachers who use English as the LOLT on why and how to support the home language in their classes (Owen-Smith 2003:2).

It could be argued that, in terms of Cummins' three requirements (see 2.1.2 above), the HLP strives to be a well-implemented programme. Therefore, for the purposes of this study, the HLP has been identified as the context within which the question of transfer (and the interdependence hypothesis) might best be examined.

In terms of problems identified in current indigenous research (discussed above at 2.3.1), it could also be argued that in the HLP some solutions may be found. For example, the HLP seeks to address problems identified by: (a) Heugh (1995), that the hegemony of English has devalued indigenous languages and the self-concept of its speakers; (b) Walters (1993), that the materials and teacher-training inherited from the apartheid era are inadequate, that the cognitive-academic achievement of black pupils has been undermined by their DET heritage, and that the ethos at ex-Model C schools is assimilationist and racist; (c) Young (1995), that the demonstrably low levels of proficiency displayed by most ESL learners (in spite of a lengthy exposure to English) is because skills in the primary language are not adequately developed, and (d) Owen-Smith (2003) that black learners at ex-Model C schools have to endure lessons in Zulu and Sotho which accommodate the needs of second-language learners (i.e. children whose primary language is English).

The solutions to these problems offered by the Home Language Project are that: (a) the Nguni and Sotho teachers prepare cognitively challenging materials using indigenous newspapers and other texts, contributing to the development of black languages and to the cognitive academic development of the learners; (b) the teachers have received in-service training in teaching methodologies, and (c) primary language and cognitive support is provided until Grade 10, offering a programme which is

additive and late immersion. Further, a recent evaluation of the HLP by Kotze indicates that “within only eight months there has been a remarkable improvement in the children’s self confidence and effectiveness” (2002:5-6).

## **2.3 THE TEACHING AND LEARNING OF EXPOSITORY WRITING SKILLS**

In order to examine the practicalities and challenges associated with teaching academic writing skills in Zulu and the question of transfer, it is necessary to examine some of the literature on teaching expository writing skills, issues relating to coherence and cohesion, and the process-product model debate.

### **2.3.1 Expository writing: coherence and cohesion**

Just and Carpenter (1987) examine and identify the differences between three main types of text. Descriptions, narratives and expository texts are looked at from the perspective of the processing functions of both writer and reader and, particularly, in terms of purposes for writing, structural features, the readers’ schemata and patterns of processing different structures, and cues and processes used by the writer to ensure text integration. The authors’ classification of the different text types in terms of purpose (informative, entertaining, persuasive and aesthetic) explicate important differences between expository and narrative and descriptive writing. They note that, in contrast to narrative and descriptive texts (which have an important function in entertaining and providing aesthetic pleasure), expository texts play an important part in explaining and discussing ideas, theses and hypotheses. Of course, narrative and descriptive elements may be necessary in order to clarify and develop the exposition, but would have little aesthetic or entertainment function. As the authors note, expository texts are derived from logical functioning and rules of reasoning, and so play an important part in communicating facts or evidence in formal education in job-related contexts and may be used to further an argument (Just and Carpenter 1987:249).

Besides being identified by its purpose and reader, expository writing also needs to be described in terms of the structures, cues and processes necessary to ensure text integration. Text integration is achieved, at one level, by intentionally creating a

global relatedness or coherence within a text which leads to the formation of well-integrated stored patterns in the reader's long term memory (Cooper 1988:353). And, on a surface level, the use of cohesive ties helps the reader "keep relations present in working memory until they can be fully processed by applying related knowledge from long-term memory storage" (Cooper 1988:353).

### **2.3.1(a) Coherence**

Coherence is described as the extent to which a sample forms a unified whole, and as Cooper writes, "coherence is a property of intentional global relatedness that readers ascribe to textual meaning" (1988:354). A coherent text, many researchers agree, has been designed with the reader in mind. Such a text consists of a "set of patterns: an inclusive controlling pattern (such as cause-effect) within which other patterns (such as illustrations or comparisons) fit in a consistent manner" to allow the reader a smooth processing of argument (Brostoff 1981:279). Lautamatti writes that:

Propositional coherence can be considered as a means of linking different parts of a frame by proceeding most commonly from top to bottom in the structure of hierarchically ordered information, that is, from more general to more particular concepts (1982:35).

Therefore, coherence in written discourse might be achieved structurally by linking main ideas, that is, framing ideas (macro-structures) with supporting ideas (micro-structures), so increasing the accessibility of the text to its reader.

### **2.3.1(b) Cohesion**

The cohesive quality of an expository text is described by Stotsky as a network of semantic relationships linking together sentences or paragraphs or units of discourse that are structurally independent of each other, helping to create its texture (1983: 430). Cohesion, writes Cooper "is the verbal relatedness of the text as a cuing system which helps the reader keep relations present in working memory until they can be fully processed by applying related knowledge from long term memory storage" (1988:353). More specifically, Halliday and Hasan write:

Cohesion occurs where the interpretation of some element in the discourse is



dependent on that of another. The one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it. When this happens, a relation of cohesion is set up, and the two elements, the presupposing and the presupposed, are thereby at least potentially integrated into a text (1976:4).

As discussed in (1.2.3b), only one aspect of Halliday and Hasan's model for analysing cohesion has been used in this study: the subcategory of conjunctive cohesion. Halliday and Hasan write that "conjunctive elements are cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or following) text, but they express certain meanings which presuppose the presence of other components in the discourse" (1993:226). The conjunctive cohesive devices taught in the HLP course were: additive (*and, for example, e.g., that is, i.e., or, in other words, namely, I mean, for instance*); causal (*because, therefore, as a result, consequently, due to, owing to, leading to*); adversative (*but, on the other hand, however, nevertheless, still, while, instead, although, whereas*); and temporal (*before, then, after that, when, firstly, secondly, before, later, finally, at this stage*). For further discussion see 2.4.3 below.

### **2.3.2 Problems with teaching and learning expository writing skills**

Flower (1981) notes that "one of the most common yet most demanding kinds of real-world writing is expository writing" which is generally not taught well (1981:3). Zamel's comment, although made in 1976, still holds much veracity today:

ESL teachers are confused [about teaching composition writing skills] and [are] still searching for answers. [Teachers] face the decision of having to choose one of several approaches ranging along a spectrum:

- (a) from rigid control (where pattern-practice and substitutions take place);
- (b) to an increase in complexity (where there is less control and longer models are provided to be manipulated and imitated) and, at the other end,
- (c) to free composition (where there is frequent, uncontrolled writing practice) (Zamel 1976:70).

Flower (1981), supporting Zamel's comments, writes that in spite of the recent

paradigm shift emanating from research (in the 1980s) investigating how writers write (i.e. the process) rather than attempting to establish the best method and model to imitate (i.e. the product), writing instruction still follows “a very traditional model, consisting of exercises and drills, with very few opportunities for students to actually write” (1981:699). In 1987, Zamel continues to argue that the product model still dominates the process model of teaching expository writing skills. Quoting Cooper (1981), Zamel notes that:

the literacy crisis and concomitant back-to-basics movement have led to the unfortunate consequence of focussing teachers’ attention on the ‘minimal skills of the bare functional literacy’ rather than ‘the maximal skills of thinking, creating and problem solving’ (Cooper 1981:6 in Zamel 1987:701).

Most researchers agree that the problems caused by inadequate writing-teaching methodologies (both product and process) result in poor expository writing skills at schools and colleges and, particularly by ESL learners. Applied linguists such as Bill (2004), Brostoff (1981), Cooper (1988), Fahnestock (1983), Flower (1981), Hubbard (1989), Hunter and Carpenter (1981), Kerrigan (1983), Lieber (1981), Stotsky (1983), Van Tonder (1999), Watkinson (1998), Wikborg (1985), Witte and Faigley (1981), and Zamel (1976, 1981, 1987) identify student writing problems. A number of researchers identify incoherence as the main problem with student writing. Cooper defines an incoherent text as one which does not flow, does not make clear sense and seems to jump from idea to idea (1988:352). Brostoff describes an incoherent text as one in which “unrelated ideas seem to be juxtaposed”, where there is no apparent set of logical relationships or controlling patterns (1981:279). Wikborg identifies “one of the sources of the breakdown of coherence in student texts as [...] the failure to make clear to the reader the function of each succeeding unit of text in the development of its overall or global meaning” because of problems with topic-structuring and cohesion (1985:133–134). Fahnestock indicates that poor writers “fail to bridge the gap or synapse between adjacent clauses” (1983:401). Stotsky suggests that the lack of lexical knowledge required for “composing or comprehending academic discourse” is at the heart student writing problems (1983:430).

Brostoff (1981), arguing from a Piagetian point of view, proposes that a question of maturity is at the core of incoherent writing. An immature writer, she suggests, is seemingly “stuck” at a stage before Piaget’s “level of formal operational thought”, where difficulties are experienced in making relationships between parts and the whole, in generalising and in creating a hierarchy. Further, immature writing has the property of egocentrism which does not adequately acknowledge a reader’s needs and therefore “may fail to reveal relationships [within a text] to the reader” (1981:25–26). According to Brostoff, maturity arrives “with the shock [accompanying] a realisation of the need for logical justification” (1981:282).

### **2.3.3 Writing programmes**

In their discussion of writing programmes to address students’ problems, many researchers agree with Flower’s (1981) statement that there are two main areas which need to be addressed: writing for the reader, and strategies for writing expository discourse.

Although researchers are in agreement that student writers need to be made conscious of their readers (in different ways), they differ somewhat in their suggestions about teaching strategies for writing expository discourse. Their suggestions incorporate (to differing degrees) the product and process models of teaching expository writing skills. Writing programmes which provide frameworks, models of well-written texts and sets of strategies are described as “product type models”. Those programmes which focus on the processes of planning, drafting, writing and editing, and are more flexible in methodology are described as “process-models”. Different programmes are described below.

Brostoff (1981), Carpenter and Hunter (1981) and Kerrigan (1983) argue for programmes which focus on the structuring of hierarchies of connected information to achieve coherence. Such models may be described as more product than process oriented.

Brostoff recommends a three-part writing programme to teach coherence focused on making students aware that juxtaposing ideas within a text does not mean that

they are connected. The first two parts of the programme are related to working at abstract levels, the first, making syntactic and logical relations within the sentence and, the second, “building a complex hierarchic structure in the paragraph” (1981:283). The third part involves teaching learners to reveal relationships by providing cues. In stage two, learners are taught that a paragraph is a layered structure composed of related sentences, they are encouraged to look back at what they have written and forward to what they will write. By doing this the concept of the reader’s expectations and need for fulfilment is introduced. So as to investigate what is called ‘the writer-reader contract’:

students learn to consider what content and structure the top sentence in one of their paragraphs leads a reader to expect, and how this top sentence limits the possible lines of development that can follow (Brostoff 1981:289).

In part three, learners are taught how cohesion helps to reveal relationships to their reader, and how to trace lexical chains across paragraphs to further reveal the pattern of relationships in a coherent text. Because Brostoff’s method involves much problem-solving and writing, it could be described as more process-based than that of Kerrigan.

Kerrigan’s (1983) programme outlines six basic steps for teaching composition writing in his course book. This method consists of starting with one clear point and then developing and supporting that idea in a detailed and systematic way (1983:v). Kerrigan’s ideas are similar to Brostoff’s in that a complex hierarchy of information is used to build a paragraph. For example, Kerrigan’s step one deals with how to write an opening topic sentence containing the main idea of the paragraph which is expressed in a generalisation or abstraction. Steps two to four deal with developing the main idea (or topic) in support sentences which carry specific, concrete details about the topic. Steps five and six deal with the use of cohesive devices to connect, support and develop the writer’s argument. Other chapters dealing with remembering the reader and revising (editing) the text, appear towards the middle of the course. Kerrigan could be criticised for not introducing the notion of the reader-writer contract earlier and also for his very precise, step-by-step methodology, which is product-based.

Teaching learners how to build a pattern of consistent hierarchic structures so as to help fulfil the writer-reader contract is also the concern of Carpenter and Hunter (1981). These researchers combine a reading and writing approach to “acquaint [particularly ESL] students with some of the English thought patterns which underlie the organisation of longer units of [academic] discourse” (1981:425). Their exercises include:

(a) reading to identify the hierarchy in an academic text (i) general statement and (ii) thesis sentence (this is where the writer is able, “in one powerful sentence” to tell the reader what the main idea is and also how the paper will be organised”), and then (iii) the support statements, and, finally, (b) writing introductions and longer texts, following well-written models (Carpenter and Hunter 1981:425).

Because of the exercise base of this programme, researchers like Zamel and Flower might argue that it is more product than process oriented.

Also situated more within the product sector of the continuum, researchers such as Witte and Faigley (1981), Fahnestock (1983) and Stotsky (1983) recommend teaching students how to use cohesion to improve the coherence of their essays. Text analysis is advocated to identify and understand the function of cohesive devices, and to make the process of “creating a coherent paragraph less mysterious” (Fahnestock 1983:415). As do researchers like Brostoff, Cooper, and Flower, these four indicate that students be made aware of the reader-writer contract where expectations raised by the writer should be fulfilled. Witte and Faigley argue that if cohesion is better understood it will be better taught. Fahnestock argues that “it is the writer’s fundamental responsibility to bridge the gap or synapse between adjacent clauses and paragraphs to provide a sense of coherence” (1981:401). To achieve this, Fahnestock recommends teaching students about the value of semantic and lexical relations such as “restatement, example, premise, conclusion, similarity and addition” (1983:405). Stotsky (1983) discusses improving the coherence of student writing through dealing with lexical cohesion so as to develop their vocabulary for academic discourse. To do this,

Stotsky restructures Halliday and Hasan's scheme for analysing lexical cohesion (to align it more with expository texts), and suggests a programme incorporating:

- (1) broad reading and frequent discussion of essays; (2) analysing the categories of word relationships within an author's text, and (3) designing a sequence of writing activities which express logical operations (Stotsky 1983: 444-445).

Situated towards the more process-oriented end of the continuum are Flower (1981), Cooper (1988), and Zamel (1987). Flower (1981), in Cooper, advocates a process-based approach to teaching expository writing and suggests a programme of nine steps, each comprising three to four strategies. These steps follow:

a continuum of cognitive constructs through [...] moving from thought toward print. The continuum begins with nonverbal mental imagery and progresses with increasingly linguistic content to abstract knowledge networks, to text-based gists and individual propositions, and finally to inscribed text (Cooper 1988:354).

Problem-solving involving the analysis of goals, the reader and the projected self of the writer takes place over the nine steps. At steps two and four, learners are shown how to construct hierarchically organised "goal-based plans" (before writing) and "issue trees or issue analyses" (to check the first draft). These structures, argues Flower, allow the writer to summarise, categorise and order information hierarchically so as to plan and investigate coordinating and support relationships within the overall argument (Flower 1981:59-197).

The nine steps described by Flower (1981) are what Cooper describes as a "cognitive meaning-making process designed to activate a continuity of senses in the reader and accommodate the formation of well-integrated stored patterns, or global coherence" (1988:353). Cooper argues that while global coherence is processed "mainly in the reader's long-term memory, short-term memory is more concerned with cohesive ties signalled in the surface structure of the text" (1988:353). To assist the reader's processing of a text in terms of short and long-

term memory function, Cooper recommends teaching students the Given-New principles of text analysis. These principles involve creating overlapping arguments in which new information contained in one sentence needs to be mentioned again in the second. This information becomes the given (or old) information in the second sentence in which further new information is provided. Cooper notes that “old information is usually in the subject position and the new information is in the predicate” (1988:358). A chain of overlapping subjects and objects is thus created. Students, having been introduced to the Given-New principles, are encouraged to write paragraphs and then entire chunks of information. A violation of the Given-New contract occurs when the Given-New information does not appear, as expected, and the reader is forced to infer what was meant (1988: 358).

Zamel criticises both text analysis and the product model for having serious limitations. Text analysis, she argues, “does not take into account the writer and the extent to which the writing event interacts with the writer’s intention, involvement, or previous literacy experiences” (1987:709). The product model, writes Zamel, provides an oversimplified framework inhibiting the composition process and producing work which is hardly the expression of genuine thoughts and ideas (1976:70). Further, she notes that product models of teaching composition are “restrictive, arbitrary, and reductionist providing rules that atomise and dismantle process, transforming composition into a kind of decomposition” (1987:700). Additionally, the static and insular ways in which formats prescribed for expository writing are described by the critics as boring, generating artificial topics, restricting communication and/or expression. Such formats are described as being impractical. Zamel calls for a model which “fully explores the cognitive, affective and situational dimensions that affect the act of writing, a framework that makes us aware of the possible influences and interactions of other dimensions” (1987:706). Zamel notes that “syntactic fluency”, rather than “rhetorical skills”, be focused on during the composing process and that writing teachers should be more concerned with the student’s (writer’s) purpose and desire for writing, with their genuine need to express feelings and reactions (1976:70). Further, she advocates that a more leisurely approach should be adopted in which writing becomes “the record of an idea

developing, a process whereby an initial idea gets extended and refined through rehearsing, drafting and revising” (1981:197). Zamel notes that as one writes and rewrites, so one approximates more closely and accurately one’s intended meaning.

Zamel’s (1976) argument has validity. The “traditional model” of teaching learners to make connections through linking macro-structures (framing statements) to micro-structures (support sentences carrying substantiating detail) could become tedious. However, in my own experience of teaching expository writing techniques, it has been found that beginning the input by showing learners how to use the framework principle for structuring a clear and logical (i.e. coherent and cohesive) argument is cost- and time-effective. Once the framework for academic structuring of information is understood and can be manipulated, writers feel empowered to become more experimental (as advocated by the process school). Also, Zamel’s statement that writers need to express their genuine “feelings and reactions” is antithetical to the purposes associated with expository texts which relate more to reasoning and discussions about hypotheses.

### **2.3.4 The Home Language writing programme: coherence and cohesion**

So as to contextualise the HLP writing programme, the English version of the course will be described, followed by a discussion of the Zulu version. Also see Appendix C.

The Zulu version of the writing programme closely follows the English materials, which are designed to teach expository writing skills along similar lines to those suggested by Kerrigan, and is based, in many ways, on a course book, *Think Write* (Rodseth et al 1992), prepared for learners at levels from Grade 8 to Matric. Models of well-written texts and a series of exercises are used, first, to introduce coherence (described in the course as “the connection of ideas”) and, second, to introduce cohesion, notably conjunctive cohesion. Therefore this writing programme is more closely aligned with product-oriented models than with the process.

#### **2.3.4(a) Coherence**



In dealing with coherence, the HLP writing programme is aligned with Brostoff's (1981), Carpenter and Hunter's (1981) and Lautamatti's (1982) discussion of a coherent text as one which consists of a set of patterns: an inclusive controlling pattern within which hierarchical information is ordered, usually from general to specific, or abstract to concrete.

More specifically, pupils are taught how to identify and then write opening topic sentences (in Zulu) which contain the main idea of a paragraph expressed in a generalisation or abstraction. As in Kerrigan's course, learners are provided with guidelines on how to write topic sentences and with exercises in which non-topic sentences are rewritten so as to carry the topic. While dealing with topic sentences, learners are also taught about planning and writing support sentences for the paragraph which provide concrete and specific details to substantiate the argument contained in the topic sentence. In the planning stage for such paragraph writing, learners are taught to prepare mind maps or goal-based plans (as described by Flower). At the stage of first draft, learners are encouraged to trace chains within and across paragraphs to reveal the pattern of relationships. If chains can be traced, the text is (of course) coherent. If chains cannot be identified, editing takes place. Editing discussions focus on how to improve incoherent texts.

Although Cooper's Given-New principles are not expressly dealt with, students are encouraged not to jump from topic to topic and to "stay on the point", so as to accommodate the reader.

This procedure of teaching students how to write coherently is closely aligned with what Bill recommends for teaching Zulu expository writing skills (as AL): that teaching learners text-attack skills in which the principles of coherence may be understood through "discovering the relationship between sentences" (2004:11). She notes that (as in English):

each sentence in Zulu has a structure, its propositional meaning; what is called its 'plain sense'. As in English, each Zulu text, too, has a structure, and "the structural features of the sentences and of the text, give the text its meaning (a message which "hangs together"), that is, its coherence (Bill 2004:11).

Learners therefore need to understand that texts should be analysed holistically, since individual sentences (although probably being grammatically and structurally correct) often make no sense as a unit of meaning.

### **2.3.4(b) Cohesion**

The English version of the HLP writing programme, which teaches learners how to use cohesion, follows the techniques of Kerrigan (1974), Witte and Faigley (1981), Stotsky (1983) and Fahnestock (1983). Text analysis, comprising identification and tracing of chains (of cohesion) across well-written models in Zulu and students' own writing are used to investigate cohesion.

As discussed, the focus is on conjunctive cohesive devices: additive, adversative, causal and temporal, which relate to the framing ideas which are used as overarching patterns to generate coherence. Each conjunctive is introduced in the programme using models of well-written texts, and exercises comprising cloze tests (in which the gaps are bridged) and in paragraph writing. As with writing exercises described above, learners (using Zulu) plan, draft, present and edit, and if need, rewrite their texts.

Bill's (2004) description of three groups of conjunctives used in Zulu is closely aligned with Halliday and Hasan's (1976) subclass of conjunctive cohesive devices, and is presented in chapter 3.

## **2.4 QUANTITATIVE STUDIES OF COHERENCE AND COHESION**

This section describes those quantitative studies on coherence and cohesion which are relevant to this research project.

A number of empirical studies have been conducted to establish the relationship between coherence and cohesion, with the aim of providing insights into student academic writing. In this section, the work of Lieber (1981), Witte and Faigley (1981), Stotsky (1983), Bamberg (1984), Neuner (1987), Hubbard (1993), Watkinson (1998) and Van Tonder (1999) will be discussed.

The aim of Lieber's (1981) study was:

to investigate the ways in which ESL students in a pre-freshman composition course use cohesive devices to link segments of text which function significantly in the development of their expository essays, and to specify the problems they still have in the use of these exercises (1981:i).

In order to segment the essays, Lieber developed a new analytic unit - the functional unit of discourse or f-unit. (An adaptation of Lieber's f-unit has been used in the present study as the means of segmenting texts in the corpus, see 3.3.5).

Lieber modified Halliday and Hasan's (1976) outline of cohesion in English to identify cohesive devices which included "all devices providing ties between f-units, including items which function intra-sententially" (1981:i). Lieber's inclusion of intra-sententially functioning cohesive contrasts with Halliday and Hasan's who only identify those cohesive items which function across sentence boundaries.

Lieber's data comprised five sets of essays written during a 14-week semester. Her analysis of errors specified "the major problems in the use of cohesive devices and provided a tentative identification of some causes for the errors" (1981:i). Her findings revealed that over the 14-week period few changes occurred in the degree to which devices from the different categories and subcategories were used to achieve cohesion. Students relied most heavily on lexical devices and to a lesser extent on reference items and conjunctions to create cohesion in their essays. Lieber's discussion of her error analysis and findings will be presented in section 2.5.

Witte and Faigley's (1981) study investigated the internal characteristics which distinguish student essays ranked high and low in overall quality. Their study focused on extended discourse and they applied Halliday and Hasan's (1976) cohesion taxonomy to high and low rated student essays. From the 90 essays which had been rated holistically by two readers on a four-point scale, ten were selected, five which had been given the highest scores and five which had been given the lowest scores. The essays were analysed "according to categories of

error and according to syntactic features, as well as according to number and types of cohesive ties” (1981:189). Their findings showed that, although the analysis of error and content variables yielded results in accordance with other researchers’ reports (i.e. that high rated essays are longer, have longer T-units and clauses, more non-restrictive modifiers, and fewer errors), the high rated essays were more dense in cohesion than the low rated essays. They found that, although lexical collocation ties best distinguish writing ability, writing quality incorporates other factors which lie beyond the scope of cohesion analysis. Such factors relate to coherence conditions which include the writer’s purpose, the discourse medium and the audience’s expectations. Therefore, Witte and Faigley concluded that cohesive ties by themselves do not constitute coherence.

Establishing a valid method of assessing essay coherence was the purpose of Bamberg’s (1984) study. So as to address problems with the National Assessments of Educational Progress (NAEP) method of rating student essays for coherence, Bamberg reanalysed 2698 essays written by 13 and 17 year olds for the 1969, 1974 and 1979 NAEP. A holistic coherence scale was developed for this purpose. Bamberg’s holistic coherence scale differed from the NAEP’s method in three ways:

- (a) it assesses coherence holistically, rating the entire essay and not individual parts;
- (b) it assesses coherence in terms of a list of features that create both global and local coherence;
- (c) it rates essays on a 4-point ordinal scale that conceptualises coherence as a quality achieved with varying degrees of success rather than as a dichotomous variable (1984: 309). Also see Appendix B.

In using the holistic scale to reassess and compare the essays, Bamberg found that although there is a strong correlation between essay coherence and writing quality, coherence is usually a necessary although not a sufficient condition for effective writing. Her rationale for this statement is that the comparison of essays written by 13 and 17 year olds showed that “a majority of good writers at both [ages] wrote coherent essays, but [that] the good 17 year old writers were clearly superior” (1984:315). Almost 92% of the 17 year old writers received a high coherence

rating (i.e. a rating of 4, “fully coherent” according to Bamberg’s holistic coherence scale) compared to 68% of the essays written by good 13 year old writers (which received a rating of 4, “fully coherent”). Bamberg notes that “these percentages [...] demonstrate the substantial increase in the ability to write coherently that occurs between 13 and 17” (1984: 316). Therefore, age needs to be considered as an additional variable.

Stotsky’s (1983) study adapted Halliday and Hasan’s (1976) cohesion taxonomy (which focused on examples of conversational and literary discourse) to accommodate an analysis of expository essay writing. In her 1986 research, Stotsky’s main concern was with lexical cohesion and she sought to measure the growth in students’ writing ability through analysing semantic relations in the examination essays of 12 Grade 10 high school students. Six essays were high rated and six low rated. She found that, in contrast to the writers of the low rated papers, the writers of the high rated essays were creating longer semantic units, placing a larger number of these units in cohesive relationships, and establishing a greater variety of cohesive relationships among these units spanning all portions of the text (1986:278). The rich texture thus created stood in sharp contrast with the low rated essays in which the writers had generated a sparse network of lexical ties, most of which were repetition. Additionally, Stotsky noted that the low rated writers exhibited a limited vocabulary and used vocabulary in a limiting way.

Stotsky also found that the high rated essays generally contained a clear introduction that referred to the topic, an explicit statement of the writer’s position, and an explicit concluding statement of the argument. Furthermore, the writers of the high rated essays expanded and clarified their propositional statements through the use of examples and details. Stotsky’s findings thus accorded with Witte and Faigley’s (1981) findings that there is a convergence between coherence and certain aspects of cohesion. For example, she found that essays highly rated according to holistic evaluation contained more and a greater variety of lexical devices than scripts which had low ratings.

Neuner’s (1987) study compared cohesive ties and chains in good and poor freshman essays. Forty essays written on a single topic were examined for the

types of ties used (after Halliday and Hasan 1996), the relative distances between coherers and precursors, the mean length of cohesive chains and the diversity and maturity of the vocabulary within chains (1987:94–55). Neuner found that good and poor essays “were not distinguished by the distances of individual ties if the length of essay [had] been held constant”, but that the length of cohesive chains was a feature of the better essays (1987:97). Neuner indicates that the use of cohesive chains rather than individual precursor-coherer ties differentiate between good and poor writers. In accordance with Stotsky’s (1986) findings, Neuner also noted that the cohesive chains in the better essays were enhanced by “greater variety [in the choice of] words, and greater maturity of word choice” (1987:101).

The analytical framework of this study closely follows Hubbard’s (1993) research, a study designed to provide an explication of the notion of coherence. Hubbard analysed the effect of the densities of the categories of reference and conjunctive cohesion on the coherence of student answers to examination questions on Linguistics and English literature. The corpus included material from students with three different language backgrounds, English; Afrikaans; and an African language. The essays were assessed holistically for coherence by three raters and then a modified framework of Halliday and Hasan’s (1976) cohesion taxonomy was applied in the analytical procedure. The analysis of reference cohesion was carried out along the lines of Halliday and Hasan’s categories. Then for the analysis of conjunctive cohesion, Halliday and Hasan’s semantic four-way system of conjunctive cohesion was first used (additive, adversative, causal and temporal). After that a more detailed categorisation developed for relational coherence analysis was applied. Eight major categories of relation between functional units of text that could be signalled by conjunctives were identified: Temporal; Matching; Cause-Effect; Truth/Validity; Alternation; Paraphrase; Amplification, and Coupling (see chapter 3 of the present study for further discussion). Findings showed that, in general, “the density of conjunctive expressions in student academic writing is more relevant to the reader’s impressions of coherence than is the density of reference expressions” (1993:67). More specifically across the two genres (Linguistics and English literature), the use of conjunctives in the functional relational units of Truth/Validity and Amplification showed a strong positive correlation with coherence ratings. Findings also showed that in discontinuative

functional relations (i.e. those which are unexpected by the reader), the use of conjunctions related to Truth/Validity; Amplification and Concession-Contra-expectation (e.g. *but, although, however, nevertheless, despite this*, etc.) were most closely associated with high coherence ratings.

The objective of Watkinson's (1998) study was to operationalise factors which impact negatively on the impression of coherence which could "be used to alert English as Second Language teachers to potential areas of weakness in their students' essays" (1998:48). She used an analytical taxonomy of coherence breaks based on Wikborg (1985; 1990) to determine the frequency of coherence breaks in essays written by first year English Second Language students. Wikborg (1990) identifies two main types of coherence breaks: "topic structuring coherence breaks and cohesion related coherence breaks" (Wikborg 1985: 360 in Watkinson 1998:54).

Watkinson's data were made up of two essays written in the first semester by two groups of first year students attending a credit course, Learning, Language and Logic, at the University of Natal. She established that there is a significant link between the frequency of coherence breaks in an essay and the holistic impressions of coherence. Additionally, she found that:

the statistically very significant difference in HCR (holistic coherence rating) assessment between the draft and final versions of essays, and the lower frequencies of coherence breaks of all types in the final versions, [indicates] that teacher intervention before the writing of the final essay, and implementation of teacher suggestions by the writer, can have a positive effect on the impressions of coherence of the text (1998:159).

Van Tonder's (1999) research "explored the relationship between densities of lexical cohesion and lexical errors on the one hand, and the perceived coherence ratings and academic scores of student writing on the other" (Van Tonder 1999: Summary). Her objective was to provide further insights into the meaning of coherence and the factors which give rise to it in student academic writing. A random selection of scripts written by undergraduate university students studying

the course Practical English comprised Van Tonder's data. The essays were assessed separately by three independent raters for their coherence level using Bamberg's 1984 four-point holistic coherence scale. A correlation was made between the HCR of the text and the mark awarded by the examiner. And then the density of lexical cohesion and errors in lexis were each correlated with the coherence rating of the texts. Van Tonder found a highly significant relationship between the density of cohesive ties relating the closing paragraph to the question prompt and the coherence ratings. Also, she found that while coherence ratings proved to have a strongly significant, high correlation with academic achievement levels of the texts, there was a moderate correlation between lexical error density and perceived coherence.

The present study continues in the tradition of examining evidence of coherence and cohesion in student academic writing. The purpose of this research accords with the research of the writers mentioned in that it is hoped the study might engender further research and assist teachers and other stakeholders in improving methods of composition teaching at high school and in tertiary sectors. It is also hoped that the description of errors encountered in the corpus will provide information on the sort of errors that seem to be prevalent in the writing of additional language students at this level in ex-Model C schools.

## **2.5 ERROR ANALYSIS**

The main aim of the error analysis in this study is to identify the misuse of conjunctive cohesion across contiguous functional relations in the texts collected. In discussing the misuse of conjunctive items in the corpus, the present study follows Hubbard's (1989) adaptation of Lieber's (1981) categorisation of errors (see 3.2.4).

Lieber (1981) identifies two main categories of errors in student writing, major and minor. She describes four subcategories of major errors: zero-referent, extraction, ambiguity, replacement, and number-agreement. Minor errors are described as those related to diction, interlingual idioms, omission and grammatical deviation. Lieber argues that conjunctives belong to a unique category since they function differently to cohesive items such as reference, substitution, lexical items and



ellipsis. As Halliday and Hasan (1976) note, unlike these devices:

conjunctive elements are cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or following) text, but they express certain meanings which presuppose the presence of other components in the discourse (Halliday and Hasan 1993:226).

Lieber defines errors unique to conjunctive devices as the choice of a conjunctive signal that is inappropriate for the relationship that holds between two sequences and the use of a conjunction when there is, in fact, no relationship to be signalled (1981:233). This category was divided into two subcategories, zero-relation signals and inappropriate or misleading signals.

So as to investigate the misuse of conjunctive cohesion in the present study, Hubbard's (1989) adaptation of Lieber's taxonomy of errors was used. The aim of Hubbard's (1989) study was to provide "a more systematic approach to the teaching of academic writing skills" through applying a framework for the analysis of cohesion errors made by students, so as to throw more light on the main problem areas (1989:2). To study the classification of cohesion errors, Hubbard approached the task from two perspectives, one formal and one functional. Since the purpose of this study was to investigate the misuse of conjunctive cohesion, it was decided to adopt Hubbard's functional approach. The six categories for the functional approach are related to the strategy that the reader is presumed to have to employ to achieve an interpretation. These are:

#### Interpretation achievable

- (a) extraction (derive interpretation by way of additional references);
- (b) form (reconstruct correct form in accordance with contextual clues);
- (c) omission (add cohesive item in accordance with contextual clues);
- (d) replacement (replace existing item with cohesive item in accordance with contextual clues).

#### Interpretation not achievable:

- (e) ambiguity;
- (f) zero-relation (Hubbard 1994:66).

Hubbard's findings showed that in the conjunctive errors made, the highest frequencies were related to omission and zero-relation. The application of this taxonomy to the present study is discussed in chapter 3. A more qualitative examination of errors is presented in chapter 4.

## **2.6 CONCLUSION**

This chapter investigates research in the debate on the efficacy of bilingual and multilingual education and the transfer of cognitive academic language proficiency from primary to additional languages. Research findings from the international and South African contexts suggest that two-way late exit, additive immersion programmes which are in line with Cummins' threshold and interdependence hypotheses (and with the objectives of the Home Language Project) are more effective for learners of English as an additional language (AL).

This chapter also refers to research studies on AL student expository writing skills, which examined the relationship between coherence and cohesion, and the effects of cohesion on a reader's perception of the coherence of a text. These research studies associate academic performance with the abilities to use coherence and cohesion in expository writing and tend to show a high correlation between such abilities and the CALP-related skills described by Cummins. In response to the frequent findings of a positive relationship between coherence, cohesion and writing quality, the hypotheses which are outlined in the analytical framework described in the next chapter, were drawn up as directional.