CHAPTER 3
ANALYTICAL FRAMEWORK AND RESEARCH PROCEDURES

3.0 INTRODUCTION

This chapter outlines the analytical framework used to assess the data collected for the study, as well as the research procedures adopted.

3.1 RESEARCH DESIGN

In terms of research design, this study can be classified as operating within a quantitative paradigm. It has an experimental design in which data were collected in the form of pre- and post-test compositions written in English by intervention and control groups. Between the pre- and post-tests, the intervention group had an expository writing course in Zulu, their primary language. The data were analysed statistically for the occurrence of certain features which will be defined operationally below in 3.3.4.

It is hoped that, within this reasonably restricted paradigm, some of the issues raised by the Language in Education Policy (1997) and Van Tonder (1998), regarding multilingual education (see 2.2.2), might be addressed. It is also hoped that this study might contribute positively in some way to the debate about writing programmes (discussed in 2.3.3) and provide information about expository writing skills and the types of errors which seem prevalent in the writing of additional language students at Grade 9 level in ex-Model C schools.

3.2 ANALYTICAL FRAMEWORK

This section defines the means used to measure evidence in the data of coherence and cohesion. There will also be a discussion of textual units used for the analysis and the error analysis will be described.

3.2.1 Coherence

In this study, coherence is defined operationally by using Bamberg's (1984) four-point holistic coherence scale (see Appendix B) against which the corpus has been measured. Bamberg's paper, the purpose of which is to develop "a valid method of assessing essay coherence", presents a scale "based on […] theory in linguistics

and discourse analysis" (1984:418). The scale involves assessing coherence holistically by looking at the whole essay in terms of a list of features identified as creating both global and local coherence. The writer of a fully coherent essay, for example, rated at "4", clearly identifies the topic and closure; does not digress; creates a context; organises details according to a discernable plan which is sustained; skilfully uses cohesive ties, and few grammatical and/or mechanical errors interrupt the reading process (1984:317–318). Moving down the scale and using the same criteria, essays are rated as "partially coherent" at "3" to "incoherent" at "2", and "incomprehensible" at "1" (here, at least the writer has made some effort). And, finally, when the writer has written only to reject the task, the rating is "0", "unscorable" (1984:18). Through assessing coherence as being a relative quality, Bamberg's scale addresses a number of problems associated with rating expository essays in the past. For example, the whole essay is assessed as a piece of discourse rather than evaluated at the word and sentence level. Grammatical and mechanical errors do not play a major part in determining whether a text is coherent or incoherent (1984:307) and neither do the absence or presence of cohesive ties play a major role in the scoring. As Bamberg notes "cohesive ties by themselves do not constitute coherence" and, citing Tierney and Mosenthal, that although "cohesion and coherence interact to a great degree, /…/ a cohesive text may be only minimally coherent" (1984:308). For example the following paragraph was rated at "1" (incoherent) on the HCR scale in spite of the use of the conjunctive connectors *because, also* and *so.*

[1] *I think that they should have extra murals* ***because*** *there are some people who like music and maybe they want to be teachers when they go from college.* ***Also*** *they must do some sport to keep them fit* ***so*** *they must not have disease.*

Bamberg also suggests that "to teach coherence more effectively, we need a better understanding of the linguistic features and theoretical structures that create coherence as well as greater insight into the problems students experience in trying to use them" (1984:306). Her holistic scale therefore facilitates (1) the assessment of coherence holistically, rating the entire essay and not individual parts; (2) assessing coherence in terms of a list of features that create both global and local coherence; and (3) rating

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).

Bamberg notes that, although the holistic coherence scale assists raters reliably to rank essays according to a set of criteria, it has a major limitation. This is because the scores do not give specific information about the strengths or weaknesses in a group of essays. To counteract the problem, Bamberg suggests that:

> a feature analysis of selected essays could give more detailed information about the development of coherence as well as increase our understanding of the difficulties students have in writing coherently (1984:316).

The feature analysis in the present study will comprise an analysis of the density of both conjunctive cohesion and functional relations evident across the functional units of discourse (or f-units) in the data collected. The functional unit of discourse, developed by Lieber (1979), has been used in the present study as the basis for segmenting essays within the corpus and will be further discussed in 3.2.4.

3.2.2 Cohesion

For the analysis of conjunctive cohesion in the data collected, Halliday and Hasan's (1976) four-way classification was used. Conjunctive cohesion occurs when certain types of item express semantic relations that specify "the way in which what is to follow is systematically connected to what has gone before" (Halliday and Hasan 1976:227). This classification identifies four semantic categories: additive, adversative, causal and temporal. The categories are defined below and then exemplified.

Additive *(*e.g*. and, for example, e.g., that is, i.e., or, in other words, namely, I mean, for instance).*

Additive conjunctives signal that additional information is being provided, to exemplify or to restate an idea in more simple terms. In the present study phrases and words such as *for example, that is* and *or* have been counted as signalling additive relationships. For example:

[2] Living in the rural areas has serious disadvantages. *For example*, choice is limited in schooling and employment.

Adversative *(*e.g. *but, on the other hand, however, nevertheless, still, while, instead, although, whereas).*

An adversative conjunctive device signals a relationship which is contrary to expectation. Halliday and Hasan note that *but*, while carrying "the logical meaning of *and*, also projects backwards in the text to some previously mentioned idea (1976: 237). For example:

[3] Some people argue that life in the country is fun. *But* many others would disagree.

Causal *(*e.g. *because, therefore, as a result, consequently, due to, owing to, leading to).*

Causal conjunctive devices generally connect cause and effect relationships across statements. For example, the second sentence shows the effects of living in the country.

[4] But you can also go and live with your aunt in the country if you like. *Because* it also has it's advantages like fresh air, no crime and more.

Temporal *(*e.g. *before, then, after that, when, firstly, secondly, before, later, finally, at this stage).*

Temporal conjunctions generally connect and signal a sequence of events, chronologically and/or hierarchically organised. For example:

[5] *Before* you decide where to live you must visit both places.

These semantic categories can be applied also to discourse markers used in the Zulu language when writing expository texts.

3.2.3 Functional relations

It was decided to expand the analytical base of the present study and incorporate

Hubbard's adaptation of Crombie's taxonomy of inter-propositional "general semantic relations" (Hubbard 1989:126–127). Hubbard notes that these functional relations are essentially semantic-pragmatic, as they are characterised in terms of discourse values which have a communicative function within a discourse. These discourse values are of two kinds: *unitary* values such as Warning, Threat and Insult – and *binary* values such as Reason-Result. Hubbard notes further that binary relations are so called because, for their realisation, two related propositions or groups of propositions are required. For example, "you cannot simply have a reason, you must have a reason for something; you cannot simply have a result, you must have a result of something" (Crombie 1985:2).

In terms of the assessment of functional relations, binary relations have been chosen above unitary relations as a framework for the feature analysis of data. There are two main reasons for such a choice. Firstly, according to Crombie, because there appears to be a small number of binary discourse values, which are frequently signalled linguistically, these are more easily identifiable than unitary value relations which are practically limitless (Crombie 1985:4). Secondly, binary relations are much less closely bound up with the context of the situation than are unitary relations. Therefore, binary value relations "are easier for the analyst to interpret, even when the context is minimal or non existent" (Hubbard 1989:125). For example, decontextualised, the following f-units (for more discussion on f-units see section 3.2.4) would be difficult to interpret from the perspective of unitary discourse relations. Is a promise, warning or a threat intended by the writer?

[6] *This will only be an advantage/ if you take your daughter to a co-educational school.*

However, from the perspective of binary discourse values, no context is required to assist the analyst to identify the relationship as Condition-Consequence. This relation is additionally signalled by *if*, belonging to the causal semantic category.

Frequently however, as noted, the relationship between f-units is not signalled, as in the following example.

[7] *I would go and live in the city with my uncle. /Life is much better there than in the rural areas.*

Here, in spite of the lack of relational signalling, it is possible to identify the relationship as Reason- Result , and a conjunctive such as *because* has evidently been omitted.

The general categories of binary relations as applied in the present study are: Temporal, Matching, Cause-Effect, Truth and Validity, Alternation, Paraphrase, Amplification and Coupling. Each of these is further described in terms of a number of functional relations which reflect a link between adjacent f-units. The general categories and their subcategories are presented below.

In this description, the functional relation is identified (P and Q represent the connecting f-units) and then followed by an example taken from the data collected. The examples are presented in the original, that is, they have not been corrected by the researcher.

(a) Temporal relations

These involve temporal connections between units.

- Chronological Sequence (CS)

Does the event (or events) specified in Q follow the event (or events) specified in P without necessarily being causally related to it?

[8] */ and when you complete your university/ then you are going to get a job*

- Reverse Chronological Sequence (RCS)

Does the event (or events) specified in Q precede the event (or events) specified in P without being causally related to it.

[9] *I'm writing you a letter to tell you about the life of the city and country/ before you make a decision.*

- Temporal Overlap (TO)

Does the event (or events) specified in Q overlap in time with the event (or events) specified in P?

[10] *When you get home/ you do your homework*

(b) Matching relations

These involve some kind of similarity or contrast between f-units.

- Comparison (Cp)

Is some aspect of P similar to some aspect of Q?

[11] */ and the shops could be a great deal of kilometeres from your house./ The petrol station may also be very far.*

- Contrast (Ct)

Is some aspect of P different to some aspect of Q?

[12] *The disadvantages are the high crime rates you will have to deal with, like murders and lots more./ It also has its advantages, like medical care, facilities and schools.*

(c) Cause-Effect relations

These involve different types of causal relations between units. In the case of Condition-Consequence, Denied Consequence, Reason-Result and Means-Result, the order of the f-units can be reversed. Examples will be provided.

- Condition-Consequence (CdC)

Does some aspect of P provide a condition for some aspect of Q?

[13] *If you choose to live in the country/ you would have to wake up early in the morning.*

The following extract exemplifies that Condition-Consequence functional relations can be reversed. Does some aspect of Q provide a condition for some aspect of P?

[14] *You would have to wake up early in the morning/ if you choose to live in the country.*

- Denied Consequence (DC)

Is some consequence that would normally follow from a condition expressed in P denied in Q?

[15] *Even if you attend school in a poor rural community/ it is possible to do well in Matric.*
(There are no examples in the corpus).

The following extract exemplifies that Denied Consequence relations can be reversed. Is some consequence that would normally follow from a condition expressed in Q denied in P?

[16] *It is possible to do well in Matric/ even if you attend school in a poor rural community.*

- Reason-Result (RR)

Does P provide a reason for some result specified in Q?

[17] *Because there won't be any interruptions from boys/ her education rates will increase.*

The following extract shows that Reason-Result functional relations can be reversed. Does Q provide a reason for some result specified in P?

[18] *Her education rates will increase/ because there won't be any interruptions from boys.*

- Means-Result (MR)

Does P provide an explanation of how some result specified in Q is achieved?

[19] *By listing the pros and cons of attending these schools/ I will help you in this instruction.*

Example 20 shows that this functional relation can be reversed. Does Q provide an explanation of how some result specified in Q is achieved?

[20] *I will help you in this instruction/ by listing the pros and cons of attending these schools.*

- Grounds-Conclusion (GC)

Does P provide an observation in terms of which a deduction is made in Q?

[21] *There are more coeducational schools in the northern suburban area than boys' or girls schools./ So, it is highly likely that the majority of these schools have very high standards because of the competition.*

- Means-Purpose (MP)

Does an event specified in P have an intended effect which is specified in Q?

[22] *You might even have to take the cattle to the grassland/ so they can eat etc.*

(d) Truth and Validity relations

These involve comments made in one f-unit about the truth or validity of a statement made in another.

- Statement-Affirmation (SA)

Does Q affirm the truth of P?

[23] *Choosing a school can be a hard process./ I should know.*

- Statement-Denial (SD)

Does Q deny the truth of P?

[24] *My mother says living in the country is better than living in the city/ but she is wrong*

(There are no examples in the corpus.)

- Denial Correction (DCr)

Does Q provide a corrective substitute for a negated term in P?

[25] *The idea that evil witches live in the country is not related to reality/ it is a silly fantasy.*

(There are no examples in the corpus.)

- Concession-Contra-expectation (CCE)

Does Q counter an inference that would normally follow from P?

[26] *There are a lot of fights/ but we forgive each other.*

(e) Alternate relations

These relations involve some kind of choice.

- Supplementary Alternation (SA1)

Does Q offer an alternative that is compatible with P?

[27] *When you wake up/ you would pour water in your bath/ or take a shower.*

- Contrastive Alternation (CA1)

Does Q offer an alternative that is incompatible with P?

[28] *Electricity is either supplied by a generater/ or there is no electricity at all.*

(f) Paraphrase

This category consists of one functional relation:

- Paraphrase (P)

Does Q have the same conceptual content as P (i.e. without providing more detail about P)?

[29] *Not forgetting the games we have in the city from soccer// which is my personal favourite// to cricket, rugby, basket ball/ in other words any game that catches your fance.*

(g) Amplification

In this functional relation, the content of the first unit is implicit or explicit in the second unit, but the second unit adds more specific detail about the content of the first.

- General-Specific (GS)

Does Q provide specific information for some more general aspect of the content in P?

[30] *In the rural areas you would have to work harder than you would have in the urban areas,/ for example, plant fruit and vegetables.*

- Term Specification (TS)

Does Q provide some specification for a more general term or word in P?

[31] *There are centres where you could hang out with your new street wise friends/ who could help you not get robbed or bitten up.*

- Statement-Exception (SEx)

Does Q provide an exception to some more general aspect of the content of P?

[32] *and that is the only bad thing I can think of/ except for the fact that there's no McDonalds.*

(h) Coupling

Coupling is identified as the weakest of the functional relations. "Here, the second member adds at least one new proposition to the first and the members are not connected in an elective comparative or a sequential way" (Crombie 1985:23 in Hubbard 1989:134). For example:

[33] *Most girls schools in the Northern suburbs of Johannesburg are focused and high motivated on the education experience of their students. / Not only are the educational standards very high / but the school also encourages the children to participate in cultural and sporting activities. / Your daughter will be attending schools with high standards / and she will lead a well balanced life.*

In extract [33], the only more specific information added about the good *education experience* provided at single sex schools is that *the children* are encouraged *to participate in cultural and sporting activities.* Otherwise, each of the f-units contains information which is loosely associated with the idea that single sex schools have high educational standards. Since one of the concerns of the present study is to distinguish between more and less coherent texts, a decision was made not to analyse f-units containing coupling. The term coupling therefore has not been given an abbreviation.

In conclusion, this section has dealt with the means used to measure evidence in the data of coherence and cohesion, in conjunction with the three hypotheses presented in 1.3.2. Bamberg's (1984) four-point holistic coherence scale was identified and described as a valid method of assessing essay coherence. The scale was used as a guideline for the three independent raters. Halliday and Hasan's (1976) four-way classification for conjunctive cohesion was identified as the means for the researcher to analyse and count the use of conjunctive items in the corpus. Hubbard's adaptation of Crombie's taxonomy of inter-propositional general semantic relations was identified as a means for the researcher to analyse and count binary functional relations in the corpus. Here, eight major categories consisting of 21 functional relations were described.

3.2.4 Textual units

So as to perform a text linguistic analysis to identify and measure the density of conjunctive cohesion and contiguous functional relations, it was necessary to establish a unit of measurement within which to do this. For the purposes of this study, the functional unit of discourse or f-unit developed by Lieber (1981) has been identified.

In past studies, various grammatical structures have served as the lowest unit of analysis in discourse studies, for example: the orthographic sentence, the T-unit and clause. The orthographic sentence, i.e. whatever appears between full stops, is the unit employed by Halliday and Hasan (1976). Their argument for using this unit of measurement is that:

> cohesive ties between sentences stand out more clearly because they are the ONLY source of texture, whereas within the sentence there are the structural relations as well (1976:9).

However, it is argued by various researchers, such as Lieber (1981) and Hubbard (1989) that in descriptive studies of cohesion in student writing, use of the orthographic sentence is not very satisfactory. For example, Lieber notes that, particularly in ESL writing, students often do not punctuate but "run everything together, so that a whole composition may appear as one or two micro sentences, while others use only minimal punctuation, stringing thought units together with *and"* (1981:41). Therefore, in the following arbitrarily punctuated and run-on sentences there are elements of conjunctive cohesion evident which would have been disregarded as textual relations, because they fall within the boundaries of the sentence.

[34] *Your life in the country would be very hard each day you wake up, fetch water from the nearest tap and that's 100m, do your chores like clean the house, feed the animals e.g. cows, chickens etc. walk to school on a dusty road there and back do your homework, feed the animals again, take the ^^ for grazing and*

then you will want to see your friends.

[35] *I recommend single sex schools because it does not promote things like sex with your class mates, but besides that, looking at different schools in the world the single sex schools are always in the top ten, the people that go to single sex schools have more discipline and are the most successful compared to others that went to co-educational schools.*

To overcome problems with the orthographic sentence, the T-unit (the minimal terminable unit) was developed by Hunt in1973 to provide a more clearly defined, manageable and objective unit of analysis. The T-unit is defined as "one main clause plus whatever subordinate clauses are attached to or embedded in that main clause" (Hunt 1973:188 cited in Lieber 1981:41–43). However, as Lieber notes "despite Hunt's confidence about deciding where T-unit segmentation should occur, it is possible to find elements within run-on sentences which could be attached to either the preceding or the following clause" (1981:44). The underlined segment of the following example shows this difficulty:

[36] *So you can make your choice but I'd recommend you come live in the city with your uncle because <u>even though it has its disadvantage</u> it also has its advantages like good education, good info structure and entertainment, like movies, casinos and many more.*

Furthermore, the T-unit has also been found in many studies (such as those by Lieber 1981; Hubbard 1989; Van Tonder 1999) to be too large to analyse significant rhetorical relations in a text, such as contrast.

In order to ensure a more discriminating and linguistically well-defined means of analysing ESL students' compositions, Lieber developed a functional unit of discourse, the f-unit (1981:57). The f-unit encompasses "conjoined coordinate clauses, subordinate clauses, zero-verb clauses and phrasal clause equivalents" (Lieber 1979:99 in Van Tonder 1999:79). Lieber provides arguments for identifying non-restrictive constructs as separate units, and arguments for not identifying restrictive structures. (For further information consult Lieber 1981).

Hubbard (1989) modified the f-unit to include temporal and locative clauses since these were excluded by Lieber in her definition. Because temporal and locative clauses feature frequently in the scripts analysed in this study, Hubbard's modification has been adopted. For further discussion of the subcategories of the f-unit, examples are discussed in 3.3.5, the sample analyses.

In terms of enabling the researcher to objectively assess the densities of conjunctive cohesion and contiguous functional relations (i.e. adjacent statements which are coherently connected), two operations took place for each essay in the corpus. First, the number of correctly used conjunctive items was divided by the number of f-units in each essay. Second, the number of contiguous functional relations was divided by the number of f-units. The two scores for each pre- and post-essay were then statistically analysed.

3.2.5 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. These errors occur through an inability to use cohesion appropriately to link one part of the text with another and leave the reader puzzled about the intended relationships. Grammatical errors, the misuse of vocabulary, errors made in number, gender and case agreement, reference errors; inappropriate tense changes, and errors made in spelling and punctuation are beyond the scope of this study.

In describing errors encountered in the corpus, reference will be made to Halliday and Hasan's (1976) four-way classification of cohesion and to Hubbard's (1989 and 1994) process-oriented analysis of errors. The errors will be categorised in terms of the misuse of additive, adversative, causal and temporal conjunctions. Following Hubbard's studies, this analysis will be more essentially reader-based, since the errors will be described in terms of the sorts of procedures or strategies that readers could be said to employ when confronted by the misuse of conjunctive cohesion (Hubbard 1994:63). A reader-based approach considers the reader's interaction with the text, her background experience with the content, expectations of what should be in the text and how it should be structured (Watkinson 1998:23).

Table 2: Categories 1 and 2 – misuse of conjunctive cohesion

Category 1: resolution achieved	**Reader's strategy to identify writer's intention**	**Category 2: resolution not achieved** (i.e. no strategies are available to achieve resolution)
(a) Extraction	Extract meaning from some aspect of context of situation	(e) Zero-relation
(b) Form	Reconstruct correct form according to contextual clues	
(c) Omission	Add a conjunctive item according to contextual clues	
(d) Replacement	Replace existing conjunctive item according to contextual clues	

Because of the small number of conjunctive errors in the corpus and because there was little improvement in either group's use of conjunctive cohesion at the end of the year, the errors were just counted and described (see chapter 4). They were not subjected to a statistical analysis.

Sample error analyses

In this section, examples of category one and two errors from students' essays are followed by a description. In the extracts, divisions between f-units are signalled by a slash (/), f-unit numbers are presented in parentheses, and any misuse of conjunctive cohesion is marked with an asterisk (*).

Category 1: resolution achieved

Extraction

In the present study, Hubbard's (1989) adaptation of Lieber's notion of extraction for reference cohesion has been used. He indicates that extraction errors are those for which an interpretation can be extracted, or derived, from a preceding or following phrase or longer segment of text (1989:20).

[39]

(4) In a single sex school it has very strict rules/ (5) this may not be good/ (6) (GC) because the primary she whent to was co educational/ (7) ****so*** *the high school must be co educational.*

The use of the causal connector *so* is confusing to the reader within the context of f-units 6 and 7. This is particularly so because of the absence of punctuation across the four f-units. However, on rereading the paragraph it is possible to extract an understanding that the writer considers it important to maintain continuity in terms of primary and high school education because of the rules obtaining in such schools. Coeducational institutions, in the writer's opinion, are less strict than single sex schools. Therefore, a move from a (less strict) coeducational primary school to a (very strict) single sex high school would not be an advantage to the girl. In accordance with the essay prompt, the writer is advising Mr and Mrs Jones that they maintain continuity.

Form

According to Hubbard, this category covers all cases where there is some error in the form of the cohesion item used (1994:73). In such a case, the reader has to reconstruct the related correct form of the conjunctive device in accordance with contextual clues.

[40]

/ (6) *I think a co educational is better* / (7) *because girls can be very* gossipie and horrible/ (8) ***where** in a boys and girls school you don't have to worry about them* / (9) *a boys and girls school is much more fun*./

In this example, because of the clearly signalled functional relation of Concession-Contra-expectation, the reader will be able to infer that the adversative conjunctive *whereas* should have been used instead of *where.*

Omission

This type of error occurs when a conjunctive item has been left out.

[41]

/ (1) From my point of view, I think you should go live with your uncle because of better education in the city /(2) So you can study hard/ (3) and get a good job in the city/(4) ***** *^^^ you'll grow up to be responsible.*

In this example, had a causal conjunctive item been used in f-unit 4 (such as *as a result*), the Means-Result functional relation across f-units 3 and 4 would have been strengthened and the overall statement improved.

Replacement

Lieber defines replacement as the "substitution of an inappropriate item for the required element" (1981:220).

[42]

/ (26) *But I must say living in rural areas help you understand the way of being independent, living and growing up with people who share with each other* / (27) *****and*** *its boring living there*/.

An example of a replacement error is evident in f-unit 27 where the use of *and*, an additive conjunctive device undermines the Concession-Contra-expectation functional relation intended across these f-units. The replacement of *but* for *and*, facilitated by the clearly-signalled functional relation, makes resolution possible.

Category 2: resolution not achieved

(e) Zero-relation

Errors of zero-relation occur when it is not possible to infer an appropriate item for the inappropriately used conjunctive item so as to achieve an understanding of the writer's intended meaning.

[43]

/(13) *The part about rural areas is that you could have to walk kilo's to fetch water, no electricity* /(14) *and you'll probably spend most of your time farming*/ (15) ****because*** *you'll have to buy your things in the city*/ (16) *and you won't go to the city everyday./*

In this extract, the use of the causal conjunction *because* renders the functional relations across f-units 14, 15, 16 and 17 uninterpretable. Even after rereading and much consideration, it is not possible to find a replacement for *because* so as to achieve resolution.

Errors in the corpus are tabulated and further discussed in chapter 4.

3.3 RESEARCH PROCEDURES

This section includes a description of research procedures in terms of the subjects, text selection, materials and method for the intervention writing programme, essay evaluation and sample analyses.

3.3.1 Subjects

The essays used in this study were written by 30 Grade 9 Zulu-speaking pupils enrolled at two ex-Model C schools in the northern suburbs of Johannesburg. The intervention group, comprising 13 students, attended a school participating in the Home Language Project and the control group, comprising 17 students, attended a school not participating in the HLP. Otherwise, the two groups were matched in terms of:

(a) age;

(b) grades; although pupils were not identified according to individual grades (i.e. according to both schools' streaming systems), each group comprised Grade 9 students ranging from levels A to F, i.e. from the highest achievers attending level A to poor achievers attending level F. Therefore, the expository writing skills of a cross-section of learners attending urban schools is exemplified within this study.

(b) background: students from both groups were additional language speakers of English. Although individuals were not interviewed, it was understood that many lived in a township and were bussed in to school;

(c) environment and ethos of the schools: both schools, being former Model C, are similar. Both are about the same size, have the same amenities, background and organisation. The curriculum at each school is similar. Also the LOLT at the schools is English, which is spoken in the classroom and playground. The ratio of primary to additional language speakers of English is roughly matched at 4:1. Staff members at both are well-trained, have similar teaching methods and are able to speak English with confidence and fluency. Each of the schools has a teacher whose primary

language is Zulu. The headmasters at the schools are white, male and middle aged. It could therefore be argued that the value system at each of the schools is reasonably similar.

The difference between the intervention and control groups lay in the Zulu lessons provided at each school. The 13 students attending the HLP school were provided lessons in Zulu as primary language where the focus was on the development of cognition and writing skills, whereas the 17 pupils at the non-HLP school attended lessons where Zulu was taught as an additional language to accommodate the needs of the English-speaking pupils. The 13 HLP students did not attend Zulu lessons as L2 provided for English-speaking learners. Also, the Zulu classes in the HLP school were attended by students who required Zulu as L1 whereas classes in the non-HLP school were more heterogeneous. Here, students from other language groups attended (i.e. English, Sotho, Venda and Tsonga) to learn Zulu as L2.

3.3.2 Data collection

The 60 essays (two written by each student) chosen for this study were the result of timed expository writing tests written in an exam situation. The two tests, pre- and post- intervention, lasted 35 minutes, for the intervention and control groups, writing on the same topics. Both topics, pre- and post-test, were similar in that the writers were asked to compare two situations (test one: living in the city or rural areas, and test two: attending a coeducational or single sex school) with the intention of convincing the reader as to which was preferable. For each test, the prompts included information about the reader and purpose for writing, the register (in all cases formal), instructions about the required length of the essay and some guidance about planning (see Appendix A).

Only the essays written in English by Zulu speaking pupils at the non-HLP school were collected for analysis.

Originally, it was planned that pupils in both groups would write three pre-intervention and three post-intervention essays (see Appendix A). However, because of logistical difficulties (described in chapter 4), only 30 subjects wrote essays on two matching prompts, the comparison.

Having two essays from each student in only one genre is considered to be a rather limiting feature of the analysis in this study. However, because comparison is a genre frequently required in student expository writing and is more difficult to accomplish than narration or description (according to researchers such as Hubbard 1989; Watkinson 1998; Van Tonder 1999; Bill 2004), this limitation was accepted. Also, because this dissertation is of limited scope and yet involves an experimental design, it was decided to accept this restriction to just one genre.

3.3.3 The intervention programme: materials and method

This section describes the materials and method designed for the HLP intervention writing course. This writing course was administered between the pre- and post-essay tests.

3.3.3.1 Materials (workbook)

The materials to teach expository writing skills to the intervention group comprised a workbook translated into Zulu by the HLP teachers. The models and exercises used for the teaching of coherence and cohesion are structured along the lines of Kerrigan's *Writing to the Point: 6 Basic Steps,* Brostoff's (1981), and Carpenter and Hunter's (1981) criteria for creating coherent texts and Rodseth, Johanson and Rodseth's *Think Write* (1992) (See chapter 2). Also incorporated are Stotsky's (1983) suggestions for analysing the categories of word relationships within a text, and the design of a sequence of writing activities for expressing logical relations (see chapter 2).

Many exercises in the workbook have been extracted from the course book, *Think Write,* which teaches learners how to write expository texts through a practical analysis and construction of coherent and cohesive texts. Examples of well-written texts and a series of exercises are used, first, to introduce coherence and, second, to introduce cohesion, notably conjunctive cohesion. Exercises in the workbook include requiring the learner to order information from general to specific; order information chronologically; select and categorise information which is connected (i.e. coherent); fill in cloze tests; and use opening topic sentences for paragraph-writing exercises.

In this way, learners are taught about formal discourse structure (i.e. coherence) and their ability to recognise, interpret and use cohesive devices is developed. Cooper's use of Phelps' definitions of coherence and cohesion fits the main concern of this expository writing course:

> Coherence is a property of global relatedness that readers ascribe to textual meaning … [and] … they perceive their own integration as strongly correlated with the intentions of the writer. Just as coherence is the semantic and pragmatic integrity discovered by readers in textual meaning, cohesion is broadly the verbal relatedness of the text as a cuing system (Phelps 1985:21–24 cited in Cooper 1988:354).

In addition to translations from *Think Write*, certain exercises from Bill's 2004 manuscript were used.

More specifically, the HLP workbook is divided into six main sections (A to F), each dealing with paragraph writing in the form of models of good writing and exercises, cloze tests and topics for paragraph writing (see Appendix C). Sections A to C deal with coherence. A deals with making connections through identifying the connections between main and support ideas; B deals with the organisation of information from general to specific and abstract to concrete and C deals with how to write an opening topic sentence. Sections D to F deal with conjunctive cohesion: D deals with temporal and additive connectors; E deals with causal connectors, and F with adversative connectors. The HLP teachers were provided with suggested answers to the cloze exercises set.

Exercises in the HLP course on coherence and cohesion are discussed in more detail below and further exemplified in Appendix C.

3.3.3.1(a) Coherence

In dealing with coherence, the HLP writing course 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 hierarchically organised set of patterns: an inclusive controlling pattern within which information is ordered, usually from general to

specific, or abstract to concrete. For example, the paragraph below, a model from the HLP workbook (i.e. translated from English into Zulu), demonstrates coherent connections between general and specific items:

[44]

Birds of prey often circle in the sky as they search for their victims. Many bird watchers have described their delight in seeing an eagle soaring before it swoops down on a rabbit, or a hawk hovering high above the ground as it searches for a mouse.

The analysis is tabulated below:

Table 3: Coherence – connections made between general and specific

Generalisations in opening topic sentence:	**Specific examples provided in support sentence:**
Birds of prey	Eagle; hawk
Victims	Rabbit; mouse

In working through the analysis, the HLP teacher examined the following:

(a) relationships between macro- and micro-structures.
(b) the ability to "form a well-structured sequence or hierarchy of relationships" (Brostoff 1981:279).
(c) (and in longer texts) the ability to connect and sustain a logical argument.

It is necessary, at this stage, to consider the translation of materials between English and Zulu, two languages which belong to very different linguistic systems. As Bill notes:

> There are striking differences between Zulu and English in word length, sentence length and sentence complexity. Zulu is a conjunctive writing system (shared with other Nguni languages) where subject and object prefixes; tense, mood, aspect and negation markers, extension of meaning are either prefixed or/and suffixed to verbal radicals (1985:15).

The resulting orthographic Zulu word "is thus a polymorphic concatenation" comprising, on average, 3.4 syllables compared with 1.5 syllables for the average English word length" (Bill 2004:24).

However, in spite of these differences, Bill demonstrates that Zulu expository writing skills can be taught through developing learners' "knowledge of formal discourse structure" (i.e. coherence) and their abilities to recognise and interpret cohesive devices. It is important to note that conjunctive cohesive devices, the cohesion focus in this study, will most often be realised in Zulu as separate words, which makes the conjunctive cohesion subsystems of the two languages more easily comparable. Bill recommends 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" (2004:11). Learners therefore need to understand that texts should be analysed holistically, since isolated/individual sentences (although probably being grammatically and structurally correct) often make no sense as a unit of meaning. Bill provides an example:

[45] *Base bangena kulomuzi*

And then they went into that village.

This is a stand alone sentence which, as a unit of meaning, is incomplete and, therefore, is difficult to interpret. (Bill 2004:11).

Bill suggests a framework for "considering textual organisation" comprising similar components to the English expository writing programme (see Appendix C) which has been translated into Zulu for the intervention group in this study, notably:

> (a) in the writing of paragraphs, use of opening topic sentences to carry the main idea (usually a generalisation or abstraction), followed by sentences presenting more specific examples of the generalisation/ abstraction.

(b) the identification of different text types such as narrative, analogy, contrast and classification, scientific descriptions and argumentative (adversative). This knowledge provides clues about the purpose, different contexts and linguistic organisation of texts (Bill 2004:21-22).

This understanding about textual organisation, coherence and different discourse types (also called formal schemata) connects with the theoretical focus of this study, i.e. that certain language proficiencies (particularly abilities to structure expository discourse) are transferable from primary to additional language/s.

3.3.3.1(b) Cohesion

Bill's description of how to develop learners' abilities to recognise and interpret cohesive devices, is similar to what is presented in the HLP writing course. Furthermore, her categorisation of discourse markers used in Zulu is aligned with Halliday and Hasan's subclass of conjunctive cohesive devices. For example:

Group A markers are related to narrative discourse and indicate the sequence in which events occur within the text:

[46] *Ngophambi koluba…, lapho …., ngelinye ilanga , emva kwesihathi*
Before when on another day after a while
(Group A markers may be related to Halliday and Hasan's temporal category).

Group B markers are used to inform the reader what the writer is doing (sequencing, exemplifying):

[47] *okuqala …, okwesibili …, singasho futhi, Isibonelo*
firstly, secondly…, we can say too/ that also, for example
(Group B markers may be related to Halliday and Hasan's additive category).

Group C markers signal the writer's point of view, giving ideas about relationships between parts of the text:

[48] Additive**:** *Futhi,* *Noma,* *Nembala*
Also, *or,* *Indeed*
(These markers may be related to Halliday and Hasan's additive category).

[49] Adversative: *Kodwa* *Ngalokunye uhlangoti* *Nomakunjalo* *Kanti*
But, *On the other hand,* *Even so,* *But*
(These markers may be related to Halliday and Hasan's adversative category).

[50] Causal: Ngoba, Ngenxe, Nakanjani
Because *Because of* *For this reason*
(These markers may be related to Halliday and Hasan's causal category).

In conclusion, therefore, it may be argued that the *raison d'etre* of the present study, to measure the transfer of skills from primary to additional language, would not be hindered by the translation of the workbook from English to Zulu. Group A, B and C markers in Zulu are clearly comparable with Halliday and Hasan's (1976) four-way classification of conjunctive cohesion.

3.3.3.2 Method

This section describes the method of the treatment for the HLP expository writing course which was taught exclusively in Zulu. Although the HLP teacher is highly qualified and experienced, she required support in the method for teaching expository writing skills. These were discussed in English and transferred by the teacher into the Zulu writing course.

The teaching method used in the Zulu expository writing course combined suggestions by writing researchers such as Flower (1981), Brostoff (1981), Carpenter and Hunter (1981) and Cooper (1988). Advice given to the HLP teacher about the analysis of models and the writing of exercises is discussed below in terms of the **analysis** of good models to explicate coherence and cohesion, and instructions to guide students' **process** of writing and editing.

The analysis and identification of coherence and cohesion in models presented involved: (1) establishing the reader-writer contract, in which the writer's focus

should be on the reader and purpose of the text; (2) considering what the content and structure of the topic sentence in a paragraph will lead a reader to expect, and how this topic sentence limits the possible lines of development that can follow (Brostoff 1981:289), and (3) tracing chains within the paragraph to reveal the pattern of hierarchical relationships developed.

In dealing with the process and writing of paragraphs, the HLP teacher was advised to teach learners: (1) how to build a pattern of consistent hierarchic structures in the planning stage through creating mind maps or goal-based plans (as described by Flower 1981); (2) how to use this plan to structure a paragraph with an opening topic sentence and support sentences, and (3), at first draft stage, to edit their paragraph by tracing chains to reveal the pattern of relationships. It was at this stage that cohesive devices were identified and grammatical and spelling errors corrected. If required, learners rewrote their texts.

An overhead projector was used to project printed transparencies with models and exercises to be done. Also, students' writing in Zulu was written onto transparencies for discussion and group editing. Additionally, the students kept a file of their written work. These files were not used as data for analysis.

In conclusion, it could be argued, that although the materials (workbook) may be described as providing a product model for teaching expository writing, the method is more related to the process model, advocated by Cooper (1988) and Flower (1981).

It may also be argued, in terms of the purpose of this study as having a heuristic-exploratory aspect in spite of being analytic-deductive, that its exploratory nature lies in the fact that, to the researcher's knowledge, expository writing skills have not been taught in Zulu as primary language at high school before in this way.

3.3.4 Essay evaluation and analysis

This section outlines assessment of the data collected, i.e. the pre- and post- tests written in English by the intervention and control groups.

The 60 scripts collected were explored from five perspectives. First, they were evaluated according to Bamberg's (1984) four-point holistic coherence scale (see Appendix B) by independent raters and then analysed by the researcher in terms of the use of conjunctive cohesion, contiguous functional relations and errors made that related to conjunctive cohesion. The fifth, a more qualitative analysis, is presented in chapter 4.

The scripts were shuffled and put into one pile in which no distinction could be made between pre- and post-test essays or intervention and control groups. Three independent markers were identified to rate the scripts impressionistically in terms of Bamberg's holistic coherence scale. They are experienced high school teachers who have taught Matric English for a number of years. When asked about expository writing, and the use of coherence and cohesion, each had a good idea about the importance of connectedness, the logical organisation of ideas and a good introduction and closure. The teachers were then provided with copies of Bamberg's four-point holistic coherence scale and asked to quickly read through the essays and rate them according to the scale. They were asked not to penalise grammatical, punctuation, spelling or mechanical errors, unless these interfered with the overall argument being presented. Within Bamberg's scale from one to four, raters were allowed to award half marks as well as whole numbers. For each script, the total of the scores awarded by the three markers was added up. This measure is called the Holistic Coherence Rating (HCR) for each script.

After the HCR evaluation of the essays, the pre- and post-tests were separated and an inter-rater reliability calculation was done according to Pearson's product moment correlation coefficient, (r).

Levels of significance, used to determine the extent to which a correlational relationship is a matter of chance, were set between 0,05 and 0,01. The 0,05 level of significance establishes that there is a 5% likelihood that a correlation occurred because of chance. The 0,01 level of significance indicates that there is a 1% likelihood that a correlation happened because of chance. These levels are represented as p 0,05 and p 0,01, respectively, p 0,05 indicating a significant correlation and p 0,01 showing a highly significant correlation.

For the pre-test evaluations, the correlation coefficient between the raters was high, $r = 0,65$; p 0.01. The post-test evaluations were moderately high, $r = 0,60$; p 0,01.

The HCRs for the pre-tests for the intervention and control groups were analysed statistically according to a two tailed *t*-test for two sets of independent data. The HCRs for pre- and post-tests were then statistically analysed to compare differences between the performance of each group. Gain scores were also statistically analysed. (A gain score represents the difference, positive or negative, between the pre- and post-test marks.) One tailed tests for two sets of related data were used since the HCR hypothesis is directional.

Correctly used conjunctive cohesive devices were identified and counted by the researcher for each essay. Contiguous functional relations were then counted. Relations at higher levels within paragraphs as well as those across paragraphs were not counted. This decision was made because paragraphing in student writing is sometimes arbitrary and may interfere with an objective analysis of the text. Therefore, in the present study, some detail which may have been added to the analysis has been sacrificed for the sake of objectivity.

The number of conjunctive items used and the contiguous functional relations were then separately divided by the number of f-units in each essay. These divisions provided the density of conjunctive cohesion and the density of functional relations. These densities were statistically analysed through one tailed *t*-tests for related data to compare student performance across the two groups. Gain scores for conjunctive cohesion and adjacent functional relations were also analysed statistically. The *t*-tests to assess the density of conjunctive cohesion were one-tailed since the conjunctive cohesion transfer hypothesis is directional. Likewise, because the functional relations density hypothesis is directional, one-tailed *t*-tests were used to measure the density of functional relations in the corpus. Results are discussed in chapter 4.

The error analysis in the present study was focused solely on the misuse of conjunctive cohesion. As discussed in 3.2.4, Halliday and Hasan's (1976) four-way classification of cohesion was used in combination with Hubbard's (1994) process-

oriented analysis of errors. Therefore, errors associated with the misuse of additive, adversative, causal and temporal conjunctions have been identified.

3.3.5 Sample analyses

Samples of the analyses of conjunctive cohesion, contiguous functional relations and errors apparent in the data collected have been included in this chapter to illustrate how the analyses were undertaken. The texts chosen include examples of two students' pre- and post-test essays: one high rated and one moderately low rated in terms of the holistic coherence rating (HCR) provided by the external markers.

In the following analysis, students' essays are first presented, followed by a tabulation of the analysis and then by the researcher's comments. Divisions between f-units are signalled by a slash (/), embedded f-units by two slashes (//), and f-unit numbers and abbreviations for contiguous functional relations are presented in parentheses. Conjunctive cohesive items have been typed in bold and errors have been marked with an asterisk (*). The prompts for the pre- and post-tests have been provided.

3.3.5.1 Pre-test

Prompt:

A young boy (about your age) called Sipho, lost his parents six months ago. Now, he has the choice of either living with his uncle in the **city** or his aunt in the **country**.
This means he has to compare the two places, urban and rural, before he makes up his mind.
Help Sipho with his choice. Write a letter to him in which you compare life in the two places.
A tip: To get your point across clearly, you will probably need to write four paragraphs.

[51]

Script A1

HCR 9.5 (high-rated)

Dear Sipho

/(1) First of all I would like to offer my condolaces for your lose./(2) I will start by giving you the pros and cons of living in the rural areas.

/(3) Let me start with the cons/(4) (P) the rural areas have many disadvantages./(5) (GS) You firstly don't have good health care./(6) Electricity is either supplied by a genarater/(7) (CAI) ***or*** *there is no electricity/(8) and candles and coal fuelled stoves have to be used./ (9) There are very few services rendered/(10) and the shops could be a great deal of kilometres from your house./(11) (Cp) The petrol station may also be very far./(12) The roads are bad/ (13)(GC)* ***so*** *your car //(14) (CdC)* ***if*** *put under that amount of stress daily// is likely to brake./ (15) The only person is the village bush machine.*

/(16) Now there are also a lot of benefits to living in the rural areas./(17) (GS) You have cleaner air/(18) (GC) ***so*** *you may be healthier living out there./(19) It is quiet/(20) (GC)* ***so*** *you cannot suffer from noise pollution./(21) You may do subsistence farming/(22) (RRt) which means you get fresh food./(23) There is a lot of space to build on/(24) and it is not as expensive as the normal residential area in the urban area or as craped./(25) The cost of living out there is generally cheaper.*

/(26) Let me tell you about the disadvantages of living in the city./(27) (GS) There is a lot of smog and air pollution./(28) There is bumper to bumper traffic at peak hours./(29) There is a lot of noise and litter./(30) It is expensive to live in the city/(31) and living space and jobs are hard to find./(32) There are more stresses and strains.

/(33) Although it is not that bad /(34) there are also a lot of advantages./(35) (GS) You have top of the range health care./(36) You have tared roads and qualified electricians and machanics./(37) There are many convenient services. /(38) (GS) ***For example*** *if your car brakes down/(39) you can phone a mechanic./(40) You have a problem /(41) you phone a plumber etc./(42) There are also better telephone facilities./(43) There are also services // (44) which you do not get at all in rural areas// like fire control.*

Table 4: Densities – conjunctive cohesion and functional relations

F-units linked	Conjunctive item	Functional relation
3 – 4		P
4 – 5		GS
6 – 7	Or (Alt)	CAI
10 – 11		Cp
12 – 13	So (Cau)	GC
13 – 14	If (Cau)	CdC
16 – 17		GS
17 – 18	So (Cau)	GC
19 – 20	So (Cau)	GC
21 – 22		RRt
26 – 27		GS
34 – 35		GS
37 – 38	For example (Add)	GS
44 f-units	6 conjunctive cohesion items	13 FR
Density	0.1363	0.295

Analysis

This essay is divided into five paragraphs and consists of 44 f-units. Paragraph 1 presents an introduction which is closely related to the prompt. Paragraphs 2 and 3, respectively, identify the disadvantages and advantages of living in the rural areas. Paragraphs 4 and 5, respectively, identify the disadvantages and advantages of living in the city.

Although paragraph 1 provides the reader with an introduction, f-units 1 and 2 are not connected in a binary relationship. Two separate issues are dealt with: f-unit 1 presents condolences while f-unit 2 introduces what will be discussed in paragraphs 2 and 3.

By contrast, in the second paragraph (comprising 12 f-units), six contiguous relations exist. F-unit 3 indicates that the *cons* of living in the country will be dealt with. These are explicated in f-unit 4. Because f-unit 4 has the same conceptual content as unit 3 but does not provide more detail, the functional relation has been identified as Paraphrase (P). F-units 4 and 5 are connected by General-Specific (GS), in that unit 5 provides specific information for some more general aspect of 4, i.e. *disadvantages*. In the links between f-units 3, 4 and 5, no conjunctive items exist. The Contrastive Alternation relationship, though, between f-units 6 and 7 has been signalled by *or*.

F-units 8 and 9 have not been counted since they exemplify “coupling” where

information is merely repeated and the argument is not really advanced. F-units 10 and 11 are connected through Matching relations (Cp), in which a similarity exists between the units: the shops and petrol station each being described as being *far away*. No conjunctive item marks this relationship. F-units 12, 13 and 14 are connected by contiguous functional relations which are signalled by conjunctive cohesive devices. The Grounds-Conclusion relationship between f-units 12 and 13 is signalled by *so*, an example of causal conjunctive cohesion. The Condition-Consequence relationship between f-units 13 and 14 is signalled by *if*, also an example of causal conjunctive cohesion.

Paragraph 3, comprised of nine f-units, deals with the pros of living in the country. Four contiguous functional relations have been counted in this paragraph. F-units 16 and 17 are connected by General-Specific (GS), in that unit 17 provides specific information about the benefits of country life. F-units 17 and 18 are connected by a Grounds-Conclusion relationship (GC). This is because unit 18 presents the writer's opinion that *a healthy life* will be a consequence of living in the country. This relationship is also signalled by the use of *so*, an example of a causal conjunctive device. No conjunctive devices have been used in the Reason-Result relationship counted between f-units 21 and 22. A Reason-Result relation has been identified because the reader will readily infer that fresh food will be had as the consequence of subsistence farming. The remaining f-units in this paragraph have not been analysed since they are examples of coupling.

Paragraph 4 deals with the disadvantages of living in the city. This paragraph is made up of six f-units and only one contiguous relation has been counted. In the General-Specific relation between f-units 26 and 27, more specific details are provided about the *disadvantages of living in the city*: *pollution*. No conjunctive item signals the relationship between the two f-units. In the remaining f-units there are no contiguous relations other than coupling.

Paragraph 5 deals with the advantages of city life. The relation between f-units 32 and 33 (i.e. across paragraphs 4 and 5, and signalled correctly by the adversative conjunctive item *although*) is an example of a coherent link which could not be counted. As discussed in 3.3.4, a decision was made not to count contiguous relations

at higher levels within paragraphs and nor those across paragraphs. Therefore, only two relations have been counted across the 11 f-units. Both are General-Specific (GS), in that more specific details are provided about general statements. In f-unit 35 the *advantages* in unit 34 are explicated. In f-unit 38 the *convenient services* in unit 37 are described. An additive conjunctive device *for example* further signals this relationship. The remaining f-units are examples of coupling. The writer provides no sense of closure to the essay.

There are no errors in the use of conjunctive cohesion across contiguous functional relations in this script.

[52]

Script I1

HCR 6.5 (moderately low-rated)

Dear Sipho

Country

/(1) The only nice ^ about the country is that there is less pollution/(2) and horses that you can ride/(3) and that's it./(4) (GS) You have to get up early in the morning, about 5 a.m./(5) (CS) and go do some farm work.

*/(6) The farm work is like cleaning barns that the animals live in/ (7) and judging how cows and horses eat, /(8) (GC) you wouldn't want to clean their messing,/ (9) *or get the eggs that chickens have./(10) You might even have to take cattle to the grassland/ (11)(MP)* ***so*** *they can eat etc.*

City

/(12) The city is the best place to be,/(13) (GS) You can look at the T.V./(14) You hardly have to work/(15) you have more time to yourself and lots of time to enjoy yourself like going to Malls until the next day.

/(16) The only bad thing about the city is all the pollution and crime/(17) (GS) and that you can die anytime in the city/(18) or get hijacked/(19) and your life doesn't get spared./(20) Crime is bad in the city.

Table 5: Densities – conjunctive cohesion and functional relations

F-units linked	Conjunctive item	Functional relation
3 – 4		GS
4 – 5		CS
7 – 8		GC
10 – 11	So (Cau)	MP
12 – 13		GS
16 – 17		Cp
20 f-units	1 conjunctive cohesion item	6 FR
Density	.05	0.3

Analysis

Script I1 was chosen because it displays different examples in the use of functional relations and in errors made. Also, this script shows many examples of "coupling", the weakest of links.

The essay comprises 20 f-units and four paragraphs. The first two paragraphs deal with *the country* and paragraphs 3 and 4 deal with *the city.* No opening statement connecting the essay with the prompt has been made. Neither is there a closing statement. The essay begins and ends abruptly. These omissions possibly account for the low HCR rating: 6.5.

The first and second paragraphs, discussing farm life, only really deal with the disadvantages. Therefore, the two should, ideally, be united. This is another example of the arbitrary nature of students' structuring of paragraphs. Had the two paragraphs been presented as one, it would have been possible to count more contiguous relations.

In paragraph 1, which is made up of five f-units, two contiguous relations have been counted. Neither of these is signalled by conjunctive cohesive devices. F-units 3 and 4 are connected by a General-Specific relation since unit 4 provides more specific information about the disadvantages of country life. F-units 4 and 5 are linked by references to time and events. Here a Chronological Sequence relation has been identified.

Paragraph 2 consists of six f-units, across which two contiguous relations and one

misuse of conjunctive cohesion have been identified. F-units 7 and 8 are joined in a Grounds-Conclusion relation (no conjunctive tie has been used) and f-units 10 and 11 are connected in a Means-Purpose relation. Here the relation is signalled through the use of *so*, a causal conjunctive item. In f-units 8 and 9 *or*, an additive conjunctive marker, has been used signaling a Supplimentary Alternational functional relation. However, because even after extra processing, the reader is not able to work out the two possible options suggested by *or*, this example has been identified as an uninterpretable error of zero-relation.

By contrast with paragraphs 1 and 2 (which deal with one aspect of country life), paragraphs 3 and 4 respectively deal with the advantages and disadvantages of city life. In paragraph 3, f-units 12 and 13 are connected in a General-Specific relation since specific detail is provided (in the second unit) about advantages of city life. In paragraph 2, f-units 16 and 17 are connected in terms of a General-Specific relation since the existence of *pollution and crime* is exemplified by the statement that one *can die any time in the city.* F-units 17, 18, 19 and 20 are bound in a loosely associated relationship (i.e. are an example of coupling) and have not been counted.

3.3.5.2 Post-test

Prompt:

The parents of a girl called Sue who is going to high school next year need to choose between sending her to a coeducational or single sex school. Help Mr and Mrs Jones with their choice. Write a letter to them in which you compare the two, co-educational and single sex schools. Tip: To get your point across clearly, you will probably need to write four paragraphs.

[53]

Script A2

HRC 11 (high-rated)

Dear Mr and Mrs Jones

/(1) I would like to try /(2) and help you make your choice on sending your child to a co-educational or girls-only school. /(3) I will help you in this instruction /(4) (MR) by listing the pros and cons of attending these schools.

Girls schools:

/(5) Most girls schools in the Northern suburbs of Johannesburg are focused and high motivated on the education experience of their students. /(6) Not only are the

educational standards very high /(7) but the school also encourages the children to participate in cultural and sporting activities. /(8) Your daughter will be attending schools with high standards /(9) and she will lead a well balanced life /(10) (RRt) ***because*** *//(11) by doing extra-mural activities // (MR) she will make friends /(12) and get exercise. /(13) Not to mention that she will not be distracted by boys. /(14) It is a proven fact that girls' marks are higher than boys / (15) (GC)* ***so*** *it will be an advantage for her to be in a class that is motivated about education. /(16) Also, sporting opportunities are better for girls in girls' schools.*

Co-educational schools:

/(17) There are a large amount of outstanding co-educational schools. /(18) There are more co-educational schools in the Northern suburban area than boys' or girls' schools. /(19) (GC) ***So****, it is highly likely that the majority of these schools have very high standards because of the competition. /(20) Also, it makes a well balanced life for the student because of the interaction of the different genders. /(21) The co-educational schools usually only focus on academics /(22) (Cp) and do not encourage sports as much. /(23) This can be an advantage /(24) (CdC)* ***if*** *your child only plans on focusing on academics.*

Table 6: Densities – conjunctive cohesion and functional relations

F-units linked	Conjunctive item	Functional relation
3 – 4		MP
9 – 10	Because (Cau)	RR
10-11		MR
14 – 15	So (Cau)	GC
18 – 19	So (Cau)	GC
21 – 22		Cp
22-23	If (Cau)	CdC
23 f-units	4 conjunctive cohesion items	7FR
Density	0.173	0.304

Analysis

This essay comprises 23 f-units and three paragraphs. The first paragraph connects with the prompt and clearly introduces the writer's intention: to list the pros and cons of attending co-educational and single sex schools. The clarity of this opening statement is probably the reason for the high HCR rating of the essay, 11 points.

However, in a close examination of the two paragraphs which follow, one dealing

with single sex and the other with co-educational schools, no negative aspects are mentioned. Ideally, two paragraphs should have been written for each heading, dealing with advantages and disadvantages.

In paragraph 1, consisting of four f-units, one functional relation has been counted. The Means-Result relation between units 4 and 5 provides a clear introduction to the essay.

Paragraph 2 deals with single sex schools and consists of 11 f-units. Here, only three functional relations have been identified. F-units 5 to 8 deal only in very general terms about *advantages* and have been labelled as examples of coupling. It is only in f-unit 9 that the writer begins to develop the argument. F-units 9 and 10 are connected in a Reason-Result relation which is signalled by *because*, a causal conjunctive device. A Means-Purpose relation joins f-units 10 and 11. Coupling again takes place through f-units 12 and 13. F-units 14 and 15 are connected by a Grounds-Conclusion relation which is signalled by the use of *so*, a causal conjunctive connector.

Paragraph 3 deals with co-educational schools and, like paragraph 2, only deals with *advantages*. There are eight f-units in this paragraph and three contiguous relations have been counted. The relation across f-units 18 and 19 initiates the argument in this paragraph. A Grounds-Conclusion has been identified and is signalled by *so*, a causal conjunctive item. The contiguous relation between f-units 21 and 22 has been counted as a Matching relation (comparison) because a similarity exists across the units since two important aspects of co-educational schools are dealt with. A Condition-Consequence relation exists across f-units 22 and 23. This is signalled by *if*, a Causal conjunctive connector.

There are no errors in the use of conjunctive cohesion. The essay concludes abruptly after f-unit 23. There is no sense of closure.

[54]

Script I2 (moderately low-rated)

HCR 6.5

/(1) Well it depends on what Sue wants/(2) (GC) ***because*** *//(3) (CdC)* ***if*** *she feels she needs boys around//(4) (GC) cause she feels comfortable around them// then she should go to a co-educational school.*

/(5)Sometimes a co-educational school is good/(6) (GC) ***because*** *you will always get high marks/(7) GC) not wanting boys or girls to laugh at you/(8) (CdC)* ***if*** *you get low marks/ (9) that's why your marks will always stay high./*

/(10) Single sex schools are also good/(11) (GC) ***because*** *its just learning no time to fling / (12) (SAI)* ***or*** *get easily disrupted by a pretty girl/ (13) who sits next to ^^ (omission). /(14) All you concentration will be on her.*

/(15) Single sex schools can also be bad/(16) (GC) ***because*** *in a boys school you will find bullies and corrupt boys/(17) (GC)* ***because*** *there is no girls to guide them/(18) and tell them what is right and wrong.*

Table 7: Densities – conjunctive cohesion and functional relations

F-units linked	Conjunctive item	Functional relation
2 – 3	Because (Cau)	GC
3 – 4	If (Cau)	CdC
5 – 6	Because (Cau)	GC
6 – 7		
8-9	If (Cau)	CdC
10 – 11	Because (Cau)	GC
11 – 12	Or (Alt)	SAI
15 – 16	Because (Cau)	GC
17-18	Because (Cau)	GC
18 f-units Density	8 conjunctive cohesion items 0.44	10 FR 0.50

Analysis

The HCR of script 12 is the same as script one, 6.5, in spite of the fact that this writer has improved in his use of conjunctive cohesion. The presentation of the paragraphs is also more effective than in the pre-test. Here, the four paragraphs indicate: first an introduction which, although being partially related to the prompt, is not entirely successful. This is as a result of the double embedding which complicates and

understanding of the logic of the statement, and also as a result of the fact that the pros and cons of each type of educational environment are not dealt with. Second, paragraph 2 deals with the advantages of coeducation; third, paragraph 3 deals with the advantages of single sex education while paragraph 4 identifies the disadvantages of single sex schools.

In this essay, ten contiguous functional relations have been counted. In paragraph 1, a Grounds Conclusion relation exists across f-units 1 and 2 which is signalled by *because*, a causal conjunctive item. Unit 3, an embedded f-unit connects with unit 2 in a Condition Consequence relation, signalled by the causal conjunctive connector *if*. Unit 4 exemplifies a double embedded f-unit. The conjunctive *cause* has been counted as a causal conjunctive device.

Two Grounds-Conclusion functional relations have been counted across f-units 5, 6 and 7. In f-unit 6 *because* correctly signals this binary relation. F-units 8 and 9 are connected in a Condition-Consequence relation, signalled by the causal conjunctive connector *if*.

In paragraph 3, the Grounds-Conclusion functional relation between f-units 10 and 11 has correctly been signalled by *because*. The Supplementary Alternation contiguous relation between f-units 11 and 12 is signalled by *or*, an alternation conjunctive device. It is interesting to note that in a comparison between essays one and two, problems with the use of *or* seems to have been overcome. By contrast, in essay one where *or* was incorrectly used, in essay two *or* correctly signals the Alternate continuous relationship across f-units 11 and 12.

In the last paragraph, two Grounds-Conclusion relations have been counted across f-units 15, 16, 17 and 18. Each relation has been correctly signalled by *because.* The writer has not presented any sense of closure in this essay.

3.4 CONCLUSION

Chapter 3 outlines the research design and analytical framework for this study. The concept of coherence is defined in terms of Bamberg's (1984) holistic coherence scale. Conjunctive cohesion is explicated according to Halliday's and Hasan's (1967)

four-way classification, and binary functional relations are identified in terms of Hubbard's (1989) adaptation of Crombie's (1985) taxonomy.

Research procedures are also described in terms of the subjects, text selection, materials and method for the intervention writing programme and the evaluation of essays. Samples of the methods of analysis are provided.