COHESION AND COMPACTNESS IN
COMPOSITIONS WRITTEN BY KENYAN
URBAN PRIMARY SCHOOL CHILDREN

THIGA, E. NJERI

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DECLARATIONS

THIS THESIS IS MY ORIGINAL WORK AND HAS NOT BEEN PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY

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THIS THESIS HAS BEEN SUBMITTED FOR EXAMINATION WITH MY APPROVAL AS UNIVERSITY SUPERVISOR

[Signature]

DR. E.A. NYAMASYO
KENYATTA UNIVERSITY
NAIROBI.
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Last but not least, I want to thank my husband for his constant support and encouragement throughout the whole M.A. Course.
This is a study of the cohesive devices in the written English of class 4 and class 8 pupils in Kenyan urban schools. The study has three specific objectives which are:

1. To examine and describe the types of cohesive devices occurring in the written English of class 4 and class 8 pupils.

2. To compare the cohesive devices used by the two age groups.

3. To examine the degree of cohesiveness and of compactness in the writing of both groups of pupils.

The description of the cohesive devices is based on a computer corpus consisting of 29,082 words derived from class 4 and class 8 compositions. The cohesive devices with grammatical marking were identified using concordance lists. These include reference, substitution and conjunction. Ellipsis and lexical cohesion were identified manually.
All the five types of cohesive devices were present in the writing of class 4 and class 8 pupils. However, reference had the highest frequency of occurrence and substitution the least. It was also observed that pupils in both classes have problems in using some of the devices but in general, class 8 pupils' texts are more cohesive and compact than class 4 ones. They use more cohesive devices and choose a wider range of these devices than their class 4 counterparts. These findings led us to attempt a specification of their possible pedagogic implications.

Firstly, they are perceived to be significant to teachers of English in these two classes. This is because they point, in detail, to the specific areas of weakness in the writing of children at these two levels with regard to achieving coherent text.

Secondly, they are significant to text book writers and curriculum designers. This is because, the findings suggest the specific cohesive categories that need to be included in these pupils' learning materials so as to enhance their mastery.
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DEFINITION OF TERMS

Coherence: This is the functional relation between successive sentences such that the entire series of sentences forms a partially ordered set.

Cohesion: This refers to relations of meaning that exist within the text.

Cohesiveness: The number of ties in a text. This is what leads to coherence of a text.

Cohesive devices: These refer to the ways in which words in a text are mutually connected within a sequence. This involves connecting an element in the text to an antecedent that is crucial to its interpretation.

Compactness: This is the degree to which each successive sentence feeds off an immediately preceding sentence in building the communication of the text.
Composing: In this study, the focus of analysis is composing ability i.e. the ability to use a given idea such as pictures to make a connected meaningful thought in writing. The term "writing" will be used to mean composing. The choice of this is because writing is more familiar than the term "composing".

Development: In this study, this means the level of complexity in the use of cohesive devices.

ESL: English as a second language.

Host/Non-host Host environment is where a language is spoken as a first language (i.e. native) while non-host is where a language is spoken as a second or a foreign language. In Kenya, English is spoken as a second language.

Ll: This refers to the first language or mother tongue.
L2: This refers to the second language, which in this study is English.

Process: This refers to the cognitive stages the writer goes through while writing.

Product: This term refers to the end result of writing.

Text: This refers to any passage, spoken or written that forms a unified whole.

Tie: This refers to a single instance of cohesion i.e. one occurrence of a pair of cohesively related items.

Writing: Ability to make graphic marks on a piece of paper.

Corpus: In this study, a corpus is a machine-readable body of language texts, in this case compositions obtained from class 4 and 8 pupils respectively.
CHAPTER ONE

INTRODUCTION

1.0 Background Information

The development of numeracy, writing and reading skills, generally referred to as literacy, provides the basis for the Kenyan Primary School Curriculum. Hann (1984), for example, refers to reading and writing as skills of language communication which are essential for the efficient transmission of ideas in a modern society. The Kenyan school system also emphasizes the importance of literacy as is evident in the language policy in education with regard to English. This states that at the primary school level, English should be taught as a subject in standards 1-3. From standards 4-8, it should be taught as a subject as well as being used as the medium of instruction across the curriculum. The policy further states that in areas where a mother tongue or first language (L1) dominates, such as in the rural parts of the country, the L1 should be used as the medium of instruction in the lower primary classes. In urban areas, however, English and, or Kiswahili is used as the medium of instruction right from standard 1 (Whiteley, 1974).
At standard 4, the average Kenyan child is 10 years old while at standard 8, he is 14 years of age. Is it possible that at these two ages the children are able to write coherently in English? What is the nature of the child's composing ability i.e. the ability to use a given idea to make or express meaningful connected thought in writing? This study specifically focuses on the level of coherence (meaningfulness) through writing that a child is able to achieve at these two levels. This is particularly important because, in Kenya, children are examined in written English and they may become low achievers due to lack of mastery of composing. A child's ability or inability to compose in English may therefore adversely affect his performance in other subjects in the curriculum. Secondly, it has been argued that ability to compose helps develop children's thought and expressiveness (Kroll, 1990). Composing ability is therefore a crucial ingredient in the learning process.

However, there are indications to suggest that learning to compose is a very complex process for children. Vygotsy (in Scinto, (1986), Edelsky, (1986) and Hedge (1988) conclude that composing is a complex process since it involves inter-related aspects of graphic, linguistic, cognitive and social features.
For children learning a second language and learning to compose in this language, these demands must present innumerable problems. For Kenyan children, in particular, it is highly probable that they have as yet to develop some composing skills in their L1. For them to learn English and to use it to compose, therefore, involves three crucial stages of development:

(i) Learning the language
(ii) Learning how to compose
(iii) Learning how to compose in the second language.

At standard 4, the Kenyan child is doing all these at the same time.

1.1 Statement of the Problem

A number of studies on language development in children have dealt with the way children develop writing ability e.g. Yde and Spoelders (1985), Flower and Hayes (1980) cited in Perera, 1989) etc. However, it has as yet to be established how children learning a second language write and compose in this language. A large number of studies on the development of writing and composing ability have tended to be based on children learning and using a second language in its "host" environment.
This study investigates the nature and development of composing ability in a second language, English in Kenyan children at two points in the primary school system: standard 4 and standard 8. Specifically, it aims at determining the types of cohesive devices occurring in the children's written English. In addition, the study analyses the degree of cohesiveness achieved at the two levels through the use of the devices. It is, therefore, important to note that in this study, composing ability is considered to be closely related to the use of cohesive devices which achieve cohesiveness and compactness in text.

1.2 Rationale of the Study

Many studies that have been carried out on text production (e.g. Growhurst, 1987), Hoey, 1986, Fitzgerald and Spiegel 1986, etc.) have tended to focus on children learning to write in their own first language. Many such studies have focused on children learning to write in their own first language (LI). There are hardly any published studies based on children learning to write in English as a second language (ESL) in a "non-host" English environment. For this reason, this study based on Kenyan Primary School Children is essential.
Class 4 and 8 pupils constitute the respondents in this study because they provide interlanguage material at two critical periods in the formal education system in Kenya. The class 4 pupils who have only began to write extensively in English, as most of the language tasks in lower primary are oral based, mark the transition to English medium based, instruction. Class 8 pupils, on the other hand, mark the end of the primary school level of education and have had a longer exposure to writing as most of the language tasks in upper primary are based on writing. They should, therefore, show the achievement made, in written English, through the years in the primary school.

It is our contention, to the best of our knowledge, that no systematic analysis of texts from these two groups of pupils has been done in Kenya. For this reason, the analysis of cohesion in pupils texts, dealt with in this study can help to determine the level of coherence achieved. This, then, provides a basis from which suggestions can be made with regard to the teaching of composing in school.
1.3 **The Scope of the Study**

This study focuses on the cohesive devices rather than other aspects of text production occurring in the written English of class 4 and class 8 pupils. Through this, it is possible to determine some aspects of the nature of composing ability in children at these two age levels. The study looks at the five categories of cohesive devices enumerated in Appendix I. It, however, ignores other aspects of text production such as those advanced by Beaugrande and Dressler (1981). These include, intentionality, acceptability, informativity, situationality and intertextuality. This is in order to avoid too wide a scope for a detailed study.

Furthermore, the study limits itself to studying writing as product as opposed to writing as process. The choice to ignore writing as process is because the tendency has been to focus on the cognitive processes (e.g. planning, editing, pre-writing etc.) rather than the linguistic features in this approach. As such, the writing as a process approach has tended to marginalize the linguistic characteristics of writing. The present study confines itself, therefore, to aspects of language in use and does not delve into aspects of cognition in the writing process.
The respondents in the study are 10 year old, (standard 4) and 14 year old (standard 8) pupils drawn from selected schools in Kitale town. From them, a total of 120 compositions have been obtained. This has been used to build a computer-based corpus which has an overall length of 29010 running words. This corpus forms the basis of language data in this study.

1.4 Objectives of the Study

This study is guided by three objectives. These are:

(a) To describe the types of cohesive devices occurring in the written English of 10 year old (class 4) and 14 year old (class 8) pupils.

(b) To compare the use of the cohesive devices by the two groups of pupils.

(c) To describe and compare the degree of cohesiveness and of compactness in the written compositions of each class.
1.5 Research Premises

This study is guided by two research premises. They are as follows:

(a) The higher the (proficiency) facility of the child in the English language, the higher the number of types of cohesive devices occurring in the child's written English.

(b) The greater the exposure to the English language, the greater the complexity in the use of cohesive devices in the written English.
2.0 Theoretical Framework

In this study, the analysis of the cohesive devices used by pupils is based on the general framework that has been developed for studies in second language acquisition. For this reason, several theoretical models have been found applicable. These include:

1. The interlanguage model (Selinker, 1972) (Cited in Ellis, 1985).
2. The cohesion model for text analysis (Halliday and Hasan, 1976)
3. The functional model of written text (Scinto, 1986).

The choice to employ three models is motivated by the necessity to do an exhaustive analysis of the data. The interlanguage model is relevant in situating the
study within the general framework of second language acquisition. The cohesion model on the other hand is necessary in analysing the cohesive devices and describing them; while at the end the functional model serves as a tool for determining two important indices of text: the level of cohesiveness and compactness of text. Following is a description of the three models.

2.01 The Interlanguage Model

The chief claim of this model is that L2 Learners acquire knowledge of an L2 in a fixed order because of their predisposition to process language data in highly specific ways. According to Selinker (1972), the concept of interlanguage refers to the knowledge of language which is independent of both the learner’s L1 and L2 in his progress towards an L2 proficiency. It is argued that a learner is gradually moving towards L2 proficiency on a scale known as the interlanguage continuum. At the extreme end of this continuum it is expected that the L2 Learner will be proficient or nearly proficient in the second language.

The above observations are relevant to the present study which examines language data from L2 Learners at two different stages of the interlanguage continuum:
class 4 and class 8 respectively. It is plausible that learners in the same environment (i.e. class) share the same interlanguage features and that they are moving towards a higher level of composing proficiency. It is expected therefore that the nature of composing ability at class 8 shows a higher degree of improvement from that at class 4.

Secondly, the fact that the interlanguage system is permeable has crucial significance to this study. This means that the interlanguage of a learner is in a continuous state of change since new linguistic forms (e.g. cohesive devices) permeate the older ones and overlap them as they are systematically presented during English lessons and also other lessons as English is used as the medium of instruction.

Thirdly, Selinker argues that learner language is dynamic and systematic. These two principal features are crucial to the present study as in the former case, it is argued that the learner's interlanguage keeps on changing gradually such that a linguistic rule can be used to cover a wider linguistic context. The important question to ask at this point is whether this change applies to cohesive devices and if so, to what extent it can be said that a learner's interlanguage with regard to composing
evolves with time? Also, the notion of systematicity is relevant to the study since it argues that a learner's use of the L2 is rule-based and not haphazard. From this, it may be postulated that the use of cohesive devices is rule-based and can therefore be predicted. However, the crucial question to pose with regard to this systematicity is to what extent the rule-based nature is evident in the pupils' use of cohesive devices in the compositions of learners at the two interlanguage stages in this study. Furthermore, to describe the cohesive devices used by pupils it is necessary to incorporate a comprehensive model of text such as that provided by Halliday and Hasan (1976).

2.02 The Cohesion model for Text Analysis

Halliday and Hasan (op.cit) argue that the suprasentential (i.e. the level above the sentence) patterning of language is an important aspect of grammar. They therefore introduce the notion of cohesion in text which is defined with regard to developing ability in writing by Scinto (1986) as:

(i) the acquisition of and control over the psychomotor and the motor organisation of the actual production of the inventory of
(ii) the acquisition of the translation rules to allow transcoding between acoustic and graphic forms of language.

(iii) the acquisition of the structural and functional rules of the written discourse organisation that allow for a degree of communicative competence in using written language.

In this perspective level (i) relates to the mechanics of writing, level (ii) involves ability to distinguish spoken and written language while level (iii) may be argued to be the level at which there is actual composition. This is because it deals with the set of features that characterize the ability to produce communicatively adequate written text. This study however focuses on level (iii) whose main point is the production of written text. This is why handwriting and spelling are not crucial to the study since they fall under level (i); a domain that is not relevant to written text production with regard to cohesion.
The above brief account serves as a definition of text from the general perspective of writing. However, the term needs to be defined specifically from the point of view of meaning. In this regard, Halliday and Hasan (1976) perceive a text as a realization of a language system and as such, to study a text involves showing how it uses language and what meanings emerge as a result. To narrow down this definition, a text can be said to be a piece of language, spoken or written, which hangs together in the sense that it conveys a message in a unified manner through cohesion.

The chief tenet of cohesion as noted by Halliday and Hasan (op cit) is the way elements within a text depend on each other for their interpretation. In this study the focus is mainly on how cohesion creates text in children's writing. As cohesion is marked by grammatical and semantic features which determine the level of coherence achieved in a text, the present study will examine these features. The cohesive features have been identified to include:

1. substitution
2. ellipsis
3. reference
4. lexical cohesion
5. conjunction
Substitution occurs when nominal, verbal or clausal elements are deleted within a text and in their place, another word is inserted in order to signal the gap. The following examples adapted from Halliday and Hasan (1976) illustrate the way this occurs.

1. (a) My axe is too blunt. I should get a sharper one, just like you did, don't you think so?
(b) What do you want the sharper axe for?
(c) Chopping wood.

In (a) above, one, did and so are examples of nominal, verbal and clausal substitution respectively. One substitutes for axe, did for get (a sharper one) and so replaces the clause, I should get a sharper one. Sentence (c), on the other hand, has an example of substitution by zero, hence it is an instance of ellipsis. Ellipsis as will be seen (cf section 4.2.1.) is another form of substitution. In ellipsis, cohesion is created by virtue of the deleted linguistic elements. This is why whenever the reader sees a substitute, he always goes to the surrounding text to supply the missing element.
Ellipsis and substitution, though closely related are presented as different categories of cohesion by Halliday and Hasan (1976). The same approach is adopted here in order to capture the subtle differences between them. This is because, as will be seen, Ellipsis is a form of substitution where the element to be substituted is replaced by zero. This means that a gap is left where something is required to make sense. Example (c) above is an instance of clausal ellipsis.

The following examples (2), (3) and (4) illustrate another cohesive device, reference, defined as the dependence of one linguistic item on another for its interpretation.

2. John has bought a car. It is a mazda
3. Juma went yesterday. He must be there now
4. The man beat up the boy. This taught him a lesson.

In (2) the indefinite pronoun it cannot be interpreted on its own. It makes reference to car for its interpretation.

He in (3) makes reference to Juma. Both these examples depict pronominal reference. In (4) This refers to the beating up of the boy (which taught him a lesson);
thus illustrating an instance of demonstrative reference.

There are two types of reference: situational (exophoric) and textual (endophoric) reference.

Consider:

(5) Has he gone? Yes he has.

The example in (5) illustrates exophoric reference where the he is known to the speaker and hearer. The context of situation helps them to identify he. The sentence in (6) illustrates textual (endophoric) reference, which, on the other hand, arises only in a text.

(6) Juma went yesterday. He must be there now.

Here, he refers to Juma and does not depend on the context of situation for its interpretation.

Another level of cohesion is lexical cohesion achieved through the vocabulary. This happens when similar or related lexical items are used in successive sentences thus creating connections at both near and far positions in the text. It is these connections that make
the text cohesive. Lexical cohesion is achieved through reiteration and collocation. In reiteration, cohesion is achieved when one lexical item refers back to another to which it is related by having a common referent.

Consider:

(7) Isaac wants to sell his house. The fool does not know the importance of owning a house these days.

In the above example, the reiterated item is a general word Fool and because it is accompanied by a reference item the, Isaac is clearly the referent.

Collocation occurs when lexical items co-occur. Such items are normally those that share the same semantic field. It is very easy for cohesion to occur when any pair of lexical items which are related in some way in the language occur in a text. Sometimes, lexical items of this kind create long cohesive chains with related word patterns weaving in and out of successive sentences. Consider the illustration in example (8) below derived from a class 8 text in this study.
(8) The water was very dirty. The stinking water made him smell bad.

The items dirty, stinking and smell in (8) are associated since they fall in the same semantic field. By virtue of their co-occurrence, cohesion is created.

Conjunctions are another way in which cohesion is achieved in text. They create cohesion by virtue of their meanings. The presence of conjunctions presuppose the presence of other elements in the discourse. For instance, if a sentence begins with a conjunction such as "nevertheless", this means there is an element in the previous sentence that is being referred to in a contrasting manner. Because of the meanings that they carry, i.e. additive, adversative, temporal and causal, conjunctions help in linking linguistic elements that occur in succession. The conjunction that links one sentence to another creates cohesion by spelling out the semantic relations between the propositions expressed by the sentences. A large number of examples of conjunctive cohesion occur in this study corpus and will be dealt with in the subsequent chapters. However, a brief account of one such conjunctive, the causal conjunctive, is in order.
Causal relations are chiefly achieved in the text samples in this study corpus by the use of so (cf Appendix 4). Examples in (9) and (10) are drawn from text samples from both classes:

(9) They persuaded Tom but he completely refused to listen to their advice. So he laid his books on the grass and took a ball and gave it a very hard kick.

(class 8).

(10) He did a bad thing to break the window. So the man poured water on him. So he started crying. Then we left him.

(class 4).

In the above example, the use of so conveys the meaning of "as a result". Causal relations are also achieved through the use of therefore (cf Appendix 4) though a very rare occurrence in the text samples in this study corpus.

Consider (II) below:

II. Advice is very important in our life. Therefore we must listen to advices.

(class 8).
The use of *therefore* above links the two sentences by virtue of the meaning that it contains i.e. "as such" or "as a result". *Therefore* creates cohesion between the two sentences. A detailed analysis and description of the causal conjunctive and the remaining three categories of conjunction is dealt with in chapter 4.

In order to determine the level of cohesiveness and compactness in the text samples in this study corpus, a third and important model has been adopted. This is the Functional Model of written text propounded by Scinto (1986).

2.03 A Functional Model of Written Text

According to this model, the ultimate goal of the process of composition is the conscious production of a coherent linear surface form that fulfils the communicative end of the text. Input to such a process involves units of lower value than the text itself (i.e. words, sentences).

In acquiring command over the written norm, therefore, the child has to achieve some awareness of the combinatorial possibilities of these lower order units. He must know that these are not merely juxtaposed; and
that they have dependency on one another. In this case, then, coherence occurs as cohesiveness since coherence is the functional relation between successive lower-order units of meaning such that the entire series forms a partially ordered set.

Scinto proposes various elements of text that help to determine the measure of coherence (cohesiveness) and of compactness of a text. These include, for example, the elements of theme and rheme.

2.031 Theme and Rheme

According to Scinto, a sentence can be characterised by the functional division of theme and rheme i.e.

\[ S = T - R \]

Theme in this case refers to the topic that a sentence sets out to talk about. It is the new information in the sentence. Rheme, on the other hand, is old information that helps in explicating the topic of the sentence. Text connectivity is represented by thematic progression (TP), that is, the choice and ordering of utterance themes and their relationships thus:
The nodes (0) represent constituent sentences and the arrows (-------->) denote thematic progression. It is not always the case that sentences feed off from immediately preceding sentences. Various patterns of thematic progression are also possible such as:

The succession of certain units of a text indicates its structure. This may be illustrated by sentences in examples 12-14 adapted from Scinto (1986). These show how the composition of lower units to form an extended communication such as text is accomplished through the concatenation of theme and rheme structure of these successive units.

12. The book was published by Oxford University Press
13. It appeared in autumn


This text can be divided into theme and rheme structures as follows:

The book (was published by Oxford University Press).

T ------------------------- R

When each of the given sentences is divided into theme and rheme, the following structure emerges;

12 T --------- R

13 T --------- R

14 T --------- R

The descending arrow in the given diagram marks the continuation of the same theme. What appears as theme (Oxford University Press) in (12) appears as theme in (14). In order to determine thematic progression, a text must be analysed for cohesive devices which link one section of the text to the next. For instance, it in (13) above is a reference item while Oxford University press in (14) is lexical repetition. Another element
introduced by Scinto is the Graph Concept.

2.032 Graph Concepts

Scinto proposes that connectivity and structure of texts are best modelled by an appeal to graph-theoretic concepts. Texts are defined as sets of lower order units but in terms of this graph theoretic concept, a text is defined as a graph characterized by the pair \((V, A)\) where \(V\) refers to a set of numbered vertices (sentences) in canonical order while \(A\) is a number of arcs. The sentences in examples (15) to (19) will be used to explain this concept further.

(15) The manuscript was an example of the late period.

(16) It was covered in a neat demotic hand which appeared to be the work of the Scribe Kyros.

(17) Kyros' work was well known to the professor.

(18) The scribe produced a limited number of manuscripts.
(19) The manuscript could be dated and placed easily since it came from the workshops at Alexandria. [Scinto, 1986: 114].

This text can be analysed into theme and rheme as follows:

Using this outline of the theme-rheme structure, the following graph can be obtained:

This graph indicates the thematic progression of the text shown by the arrows. A diagram such as the one above
shows the way various elements in a text combine to give unity to the text. The connection between the arrow at 15 and the arc at 16 is brought about by use of the reference item it. Here it refers back to the manuscript at 15. 16 leads on to arc 17 again through lexical repetition whereby Kyro's work in 17 refers back to the work of the scribe Kyros in 16. This way, text connectivity is achieved. That is why the text is readable.

Another element dealt with in this model involves the level of cohesiveness and compactness.

2.033 Level of Cohesiveness and Compactness

The indices to measure cohesiveness and compactness in a text are calculated from the model outlined in the preceding sub-section. With regard to graph concepts a text is defined as a graph with 4 edges, V, A, D, W. V refers to the number of sentences, A refers to the functional relation between the sentences of a text, D refers to the strength of this relation between sentences such that the more the elements that bind two sentences, the stronger the relation between the sentences. W refers to a function which assigns weights to arcs (cohesive devices) such that W(A) is the sum of the
Based on these concepts, Scinto derives the formula for calculating the degree of cohesiveness thus:

\[ \lambda = [\Sigma W(A)] + V \]

Where: \( \Sigma W(A) \) = The sum of the weight of arcs in the graph text (cohesive devices).

\( V \) = The number of vertices (sentences) in the graph.

\( \lambda \) = Degree of cohesiveness.

which is a measure of how connected the text is with respect to its structured composition.

The degree of compactness, on the other hand, measures the tightness of the structure of the text. It can be described as tight when there is a great number of adjacent vertices characterized by cohesive devices. To measure this index of the text, the arcs (functional relations) are weighted as to the type of adjacency they exhibit. There are 3 categories of adjacency within the functional framework according to Scinto. They are:

- adjacent
There are 3 values associated with these types of adjacency:

\[ 3 = \text{adjacent} \]
\[ 2 = \text{penadjacent} \]
\[ 1 = \text{antepenadjacent} \]

The weighted value for adjacency is used to calculate the degree of compactness through the formula:

\[ c = \frac{\sum W(\text{adj})}{V} \]

Where:

- \( c \) = Degree of compactness
- \( \sum W(\text{adj}) \) = The sum of the weighted values for adjacency.
- \( V \) = The number of sentences (vertices in the graph in the text) (f.f section 4.5).

By compactness is understood the degree to which each successive sentence feeds off an immediately preceding sentence, in building or carrying forward the communication of the text. The greater the number of immediately adjacent vertices (sentences), the tighter or more compact is the structure as a whole. This
successive binding of elements where new information is linked to immediately preceding information ensures for the consumer of text a highly predictable and hence easily assimilated structure for decomposition. Such compactness is desirable if a text is to achieve a high degree of cohesiveness.

In the preceding pages, an attempt has been made to place the present study within a certain framework. There is, however, still a need to take up some of the points raised in more detail and this is done in the following section on literature review.

2.1 LITERATURE REVIEW

2.11 Introduction

This section will not attempt an exhaustive review of literature on second language acquisition for the simple reason that this has been done exhaustively by many linguists and will therefore prove repetitious. However, a brief discussion here is in order since as has been noted in the preceding pages, this study hinges on the general framework of second language acquisition.
2.12 Language Acquisition in Children

Many studies such as MCTear (1984), Kellerman (in Britton, 1975), Burt and Dulay (1974b), Hunt (in Scinto, 1986) etc. have been carried out to determine the way in which children develop or acquire a language. Most of such studies have been carried out where the target language (TL) is also the first language (L1) of the children investigated. As a result, there are very few documented reports on the nature of language development in writing in children who are learning English as a second language.

Many other studies have focused on the development of language in children living in the host environment of the language being learnt. Examples include Harley (1983), Harley and King (1989), Allen et al (1983) etc. all cited in Harley et al (1990). In such studies, the children under investigation have mostly been second language learners of English or French in an English-speaking or French speaking environment. It is for this reason that the present study is deemed unique and crucial since it focuses on children who are learning English as a second language but where English is not a native language in the host environment. It is plausible to suggest that Kenyan children experience difficulties
in writing. This could be because of the reasons cited below. In the first place, English, the second language, is introduced at a very tender age of 6-7 years when the children have not fully mastered their first language (cf. Carol Chomsky, 1969). Secondly, the second language is very different from their first languages and this leads to interferences from these first languages or "mother tongues" as the children learn and move towards L2 proficiency in their interlanguage continuum (cf Harley et al, 1990).

It has been noted (cf Kuczaj, 1984), Harley et al (1990) that a lot of emphasis in research and language teaching has been placed on grammar and lexis in second language acquisition. Learning how to compose in writing does not form part of the language learning curriculum in the Kenyan primary school context (cf KNEC syllabus, 1986). A detailed analysis of the written compositions of 10 and 14 year old Kenyan children is, therefore, essential in determining the nature of their composing ability. A detailed analysis and description of the cohesive devices which occur as markers of cohesiveness in text provide a strong basis for such a description.

Finally, in this subsection, it is worth noting that the present study bases its argument on the general
framework of second language acquisition. Specifically, we make recourse to the interlanguage theory already mentioned in the preceding section. This is relevant because an assumption is made that the respondents in the study (10-14 year old) can acquire a language and this argument is derived from Chomsky's (1965) innatist model which explains that a child has a language acquisition device commonly referred to as LAD which is instrumental in his acquisition of language.

2.13 The Acquisition of Writing Skills

The account given so far with regard to language acquisition is not enough to give a clear picture of what this thesis focuses on. At this point, therefore, there is a need to narrow our focus on writing which, as already noted, is used interchangeably with composing. This sub section therefore gives a detailed review of literature on writing in order to clarify the points raised in this study.

It can be noted from the start, that the field of writing has developed tremendously and writing is no longer restricted to the study of syntax. Many factors such as audience, topic, purpose etc. have been investigated with regard to writing and the findings have
made the field of writing development especially in second language learning very advanced (Marthew 1983).

According to Gundlach (cited in Scinto, 1986), the maturity of a writer emerges when he is able to make not a word or a sentence, but a whole discourse. He further notes that children compose whole discourses from the beginning of their development as writers. Gundlach therefore concludes that the end purpose of written language is the ability to produce communicatively adequate text. This ties in with what has been suggested in the preceding pages that the level of composing can be said to mark the maturity of a writer rather than the psychomotor skill of merely being able to hold a pen and making marking on a page of paper.

This is why this study focuses on composing ability rather than other areas of writing. Kemper (in Kuczaji, 1984) notes that communicative ability in writing develops gradually in children. She observes:

While their first stories are but "heaps" of unrelated actions, by the age of 10 children have mastered the complexities of plot structure.

This observation is crucial to this present study as it firstly, provides a ground for the assumption that 10
year-old Kenyan children at class 4 can write and secondly, that it is plausible to find differences between them and class 8 pupils (14 years) who have had more exposure to language.

It is worth pointing out that unlike this study, Kemper is referring to children who are learning to write in their first language. This study does not focus on first language speakers but on second language learners: firstly acquiring a language, and secondly, using it to compose. It is suggestible that such children possibly have more difficulties in writing compared to their first language counterparts. This can be illustrated by arguments such as those advanced by Carol Chomsky (1969). She notes that there are as yet no complex syntactic features in 5-10 year old childrens' language, which means that these children have not fully mastered their first language.

For Kenyan children aged 10-14 years, they are learning and developing writing skills, not in their first language, but in a second language that they have barely been introduced to (at the age of 6-7). How then, do they cope with firstly, mastering English as a second language, and secondly, developing composing skills through this second language? This study is, therefore,
an attempt to throw light on this by examining the nature of composing ability as displayed by children at these two age groups.

Further, learning to write is made difficult by the fact that it involves translating meaning into visual symbols (cf. Kress, 1983). For children, there is, in addition the complex process of trying to change language which is normally geared towards speech production into a system that can function in a decontextualised mode. Britton (1983) adds that in the initial stages of learning to write, children draw upon linguistic resources gathered principally through oral speech. Young children, therefore, have difficulty in sustaining an endophoric text for a non-present audience and this will become clear in subsequent sections of this study.

A further difficulty that beginning writers face is that of recalling information they have provided previously in their texts. This leads to repetitive texts such as those of class 4 writers in this study. As Freedle and Fine (in Yde and Spoelders, 1985) point out, the problems involving cohesion in such texts can be attributed to limitations in children's cognitive capacities. They are quick to point out, however, that linguistic factors may also be at work and it is this end
of the stick that the present study takes in order to investigate cohesiveness in children's texts.

Bearing in mind that all the above observations have been made with regard to children using their first language to compose, it should not be contentious to claim that Kenyan children are faced with an enormous task when confronted with a second language that they must learn and use to compose adequate texts. An analysis of cohesive devices in the texts of such children provides insights into the nature of the children's grammatical ability as well as their ability to compose coherent texts.

Despite these difficulties faced by the Kenyan child writer, no specific activities have been enumerated with regard to the teaching of writing at the level of text. The Kenya National Examinations Council (K.N.E.C. 1986) syllabus for instance, gives the broad objective that pupils should write legibly and meaningfully but the learning activities suggested are mechanical rather than composing processes. This is probably in keeping with the long tradition in which there is a lot of emphasis on spelling, hand writing, grammaticalness and lexis rather than on the whole discourse (cf Scinto, 1986). Indeed, most of the studies on the development of written
language have ignored the level of text and instead concentrated on language at the level of word or the syntax of the atomic sentence. This is why this present study is crucial as it is an attempt to fill in this gap by suggesting that composing is an integral part of language learning.

Finally, one further aspect of writing needs to be clarified as it relates to this study. This is the fact that writing has been viewed as either product or process depending on whether it hinges on socio-linguistic and syntactic elements or psycholinguistic ones respectively. Writing as process is the most recent development in written language acquisition research but the present study focuses on writing as product in order to determine the nature of composing skills at the two age levels. This is mainly because studies based on writing as process tend to ignore the variable of language itself. Examples of such studies include Scardamalia (1981), Nold (1981) and Flower and Hayes (1980, 1981) all cited in Scinto (ibid). As this study is concerned with examining the nature of a linguistic phenomenon (i.e. cohesive devices) rather than cognitive processes, it is based on the framework of writing as product. This, however, does not mean that the processes of writing are not relevant but it does mean that it warrants further study and in a
degree of detail that is beyond the scope of this study.

In what follows here, a brief review of literature relating to the study of cohesion in text is made with a view to casting light on this area of study that has so far received little attention in the Kenyan context.

2.14 Cohesion in Studies of Text

According to Scinto (1986), accounts of writing development that view it as mere mechanics i.e. formation of graphic units and phonic lexical items distort the study of writing since man's use of language is only best characterised by ability to produce text. However, this is not to suggest that sometimes mechanics such as spelling and handwriting are not crucial to the overall coherence of a text. It only places emphasis where it should always be placed, i.e. going beyond mechanics to the actual composition. The term 'text' is therefore revealing in the sense that it refers to a stretch of language that should be meaningful whether spoken or written, short or long. The following are instances of text, for example:

(17) CASH ONLY

(18) CHILDREN CROSSING
Any driver would, for instance, understand what the word STOP means on a road sign. It is therefore a complete text because it is meaningful.

A text is meaningful because of cohesion defined (cf 3.1.2) as relations of meanings that exist within the text. A single instance of cohesion is called a tie and this is illustrated in (21) below:

(21) A: Are you ready?  
B: Not yet, but I soon will be.

The second sentence in the above example coheres with the preceding one by virtue of the missing element "ready" in the second sentence. This is an example of cohesion by ellipsis.

Cohesion can be achieved through reference, substitution, ellipsis, conjunction and the use of lexical items. These are examined in detail in subsequent sections of this study. Cohesive ties are examined with regard to types employed by the respondents in this study and to what extent they make their writing cohesive.
Witte and Faigley (1981), in an examination of the relationship between patterns of cohesiveness and quality of writing, report a significant relationship between the two indices. In a similar view, Fitzgerald and Spiegel (1981) in their study of the relation of writing of sixth and seventh grade children with cohesion and coherence concluded that there is a great relationship between cohesion and coherence. It seems reasonable to suggest, therefore, that there is a significant relationship between good writing and cohesive devices used. This is why in the present study cohesive devices are examined and given a central place in the description of the texts under investigation.

Another crucial study based on cohesion is that by Crowhurst (1987) (in Yde and Spelders, 1985c) in which he compared the use of cohesive devices by different grade level children and found that there was no overall tendency for the frequency of cohesive ties to relate to any grade level. His subjects were native speakers of the language in which they were writing. In the light of this, are Crowhurst's findings still valid in an ESL situation?

In yet another study based on cohesion, Yde and Spoelders (1985) found a developmental trend in the
cohesive patterning by third and sixth grade children. They noted for instance that:

1. the older the children, the higher the degree of cohesiveness and compactness.

2. certain kinds of errors accompany certain stages in learning to write.

Their study is useful to the present one especially in terms of data elicitation and analysis methods (cf appendix 2) and also because they found a developmental sequence in development of cohesiveness and compactness which is a crucial assumption of the present study. Their findings also, have been a basis for constructing research premises stated in chapter one of this study.

To conclude this section, a brief discussion regarding the choice of the model to use in text analysis is in order. First, it may be noted that several approaches to text analysis exist e.g. Beaugrande and Dressler (1981), Halliday and Hasan (1976) and Scinto (1986) among others. According to Beaugrande and Dressler, there are various aspects of textuality,\(^1\)

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1 Intentionality, acceptability, informativity, situationality, intertextuality, cohesion and coherent.
cohesion and coherence being just but a few. They propose seven aspects of textuality which must be studied in any detailed assessment of a text.

Halliday and Hassan, on the other hand cite cohesion as being the main feature of a text and indeed define a text as a meaningful piece of language. The meaningfulness in text, according to Halliday et al (ibid) is achieved through cohesion. Scinto advances a functional model of written text in which text is analysed according to its specific units such as theme and rheme, and graphs are drawn to determine the way units of text combine to make it meaningful.

For the sake of brevity, this study uses the Halliday and Hasan approach because of its ability to analyse the text delicately and also because the focus of the study is on cohesion. In addition, Scinto's approach is applied in determining the level of compactness and cohesiveness of the texts under investigation. It is not possible, as far as this study is concerned, to pick out all the seven aspects of text advanced by Beaugrande and Dressler because this would prove too wide a scope for a detailed study. These aspects, nevertheless, certainly warrant further study and in a degree of detail that is beyond the scope of this study.
The ensuing chapters of the thesis provide detailed analyses of the data, the methods used in elicitation and description of the data and finally, an analysis of the results.
CHAPTER THREE

METHODOLOGY

3.0 Area of Study and Study Population

This study was carried out in Kitale town primary schools. This was based on the assumption that since pupils in Kenyan schools (urban vs rural) are generally exposed to the same English syllabus, taught by teachers who have undergone the same training, use the same course books and are all developing language ability within similar language environments, Kitale town schools generally could be representative of primary level urban Kenyan children. In addition, the choice of Kitale urban schools ensured that the subjects were heterogenous owing to their differing linguistic backgrounds. A herogenous population would mean that English is introduced earlier than in rural schools.

The respondents from whom the data has been obtained are 10 year old children at standard 4 and 14 year old children at standard 8\(^2\). This provides a heterogeneous group with regard to the children's

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2 In the Kenyan system of education, children are enrolled at standard 1 when they are 7 years. There are 8 primary classes referred to as standard in the present 8-4-4 system.
differing first languages. Such a heterogeneous group is relevant to the present study because owing to the respondents' different linguistic background a common language is chosen for instruction in lower primary, which in most cases turns out to be English. This means that by the time the children are in standard four, they have grasped some ability in composing in English since they have had a longer exposure to the language as opposed to those children who use the L1 as the medium of instruction.

3.1 Sampling Procedures

The schools used in this study were randomly selected. This was done by use of a table of random numbers based on a list of six Kitale Primary schools where English is taught from standard one and used as a medium of instruction as well. In this way, three schools were selected from the total number of this category of schools in Kitale municipality. These schools were Kitale Primary, Jack and Jill primary and Greenfields school. The choice of these schools ensured that the subjects were heterogeneous with regard to their linguistic backgrounds and this can be said to be generally representative of urban primary schools in Kenya.
In each of the three schools selected the research instrument (see Appendix 3) was administered to all pupils in standard 4 and 8. Later the written compositions of 20 pupils from both standard 4 and 8 in each school were picked at random. This was done through systematic random sampling where every fourth paper from the total number 60 was picked until the 20 subjects were sampled in each of the two groups. This ensured that each pupil had an equal chance of being selected and therefore the results were unlikely to be biased.

The size of the whole sample was therefore 120 written compositions with a total of 29,010 running words and 2,376 word types. These were manually entered into the computer memory at a computer key board. The study data therefore comprises a computer readable corpus. From this, three different frequency word lists have been built. These include frequency word lists for:

(i) the overall corpus
(ii) class 4 sub corpus; and
(iii) class 8 sub corpus.

These are useful in determining the nature of the pupils' vocabulary. Furthermore a mini corpus of only sixteen compositions (i.e. 20% of the total) has been drawn from
the study corpus to be used in the descriptions of the degree of compactness in the texts.

This was undertaken because a computer cannot carry out a satisfactory analysis of this nature, and the task of analysing the whole corpus manually for compactness would be too labourious. To build a mini corpus, therefore, was the only solution to this problem, since with it an extensive analysis of compactness would be carried out satisfactorily. Further, the minicorpus would provide an adequate example of the cohesive devices applied by both groups of learners. The texts to be included in the minicorpus were selected randomly using a table of random numbers from compositions from both groups of pupils.

3.2 Data Collection Procedures

In studies based on language acquisition, linguists have adopted various methods of data collection. The two most important are longitudinal and cross-sectional approaches. The longitudinal approach involves keeping detailed records of children over a period of time or collecting tape-recorded samples of speech from a larger group of children at regular intervals over a year or so.
Another method widely used in child language research is the cross-sectional approach (of Ellis, 1985) which involves recording the language of a number of children of the same age and possibly comparing it with the language of matched subjects of another age. This method of data collection is adopted in this study to provide two sets of interlanguage data with which to compare the composing ability of two groups of pupils of different ages and in different class of the primary school.

The subjects were therefore asked to write a story based on a series of pictures (see Appendix 3). This was necessary in order to control the texts produced for discourse type and topic since as has been observed (e.g. Martlew (Ed.) 1983), the mode and field of a text, in many ways determines the language used and by extension the kind of cohesive devices used. The story as a form of writing rather than any other was chosen as it has been observed that children develop the skill of story telling and writing earlier than the skill of argumentative or expository writing (e.g. Bereiter, 1980).

The subjects were tested as a group in their own classrooms. This was done so as to help the pupils
realize that the exercise was a serious one and at the same time it meant that they were writing in a more natural setting than anywhere else. To help the pupils relax the researcher assured them that their work was not for grading. They were given freedom to express themselves by emphasizing that the pictures were only a suggestion for ideas they might include in their writing exercise. There was therefore no limit to the length of the composition.

The research instrument was administered by the researcher with the help of the English teachers in each school. This helped the pupils to write freely as the presence of their teachers helped them to relax.

3.3 Data Analysis

A concordancing programme, the Longman Mini Concordacer (LMC) (Chandler, 1985) was used in the initial processing of the texts in the corpus. Two types of concordance lists, frequency wordlist and rank wordlists were prepared from the two subcorpora (see Appendix 4).

Concordancing is an electronic text processing technique in which a concordance programme such as the
LMC, scanning through a written text looks for every example of a word, phrase or other specified form in the text and then sorts and displays the examples. The table below, which summaries the characteristics of the study corpus, has been constructed using the LMC programme.

Table 1: A Summary of the Characteristics of the Study Corpus

<table>
<thead>
<tr>
<th>Sample</th>
<th>No. of Composition in words</th>
<th>Length</th>
<th>No. of word types</th>
<th>Type to token ratio</th>
<th>No. of sentences</th>
<th>Average sentences per Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 4</td>
<td>60</td>
<td>8,946</td>
<td>730</td>
<td>9.38</td>
<td>888</td>
<td>14.8</td>
</tr>
<tr>
<td>Class 8</td>
<td>60</td>
<td>20,135</td>
<td>2,146</td>
<td>12.25</td>
<td>1,369</td>
<td>22.8</td>
</tr>
<tr>
<td>Whole</td>
<td>120</td>
<td>29,081</td>
<td>2,376</td>
<td>12.20</td>
<td>2,257</td>
<td>18.8</td>
</tr>
</tbody>
</table>

It is evident from table 1 that the class 8 corpus is longer than the class 4 corpus in terms of number of running words and sentences. Also, the class 8 corpus has almost three times as many word types as the class 4 corpus. It is plausible that class 8 children have a wider vocabulary (see also Appendix 4) compared to their class 4 counterparts. It can therefore, be postulated that they use a wider range of cohesive devices especially lexical cohesion.
The cohesion model for text analysis (cf. 2.1.2) and the functional model of writing text (cf. 2.1.3) were used complementarily to determine and classify the cohesive devices in the study corpus. Each individual pupil's composition, here referred to as a text, was analyzed for: types of cohesive devices; their distribution and their antecedents. The degree of cohesiveness engendered by the devices observed in the text were also calculated. In order to determine the degree of compactness of the texts, a mini sample here referred to as a mini corpus, of 16 compositions (or 20% of 120) was selected. This was done through Systematic Random Sampling where every sixth paper was picked from a total of 120 texts. This was necessary for ensuring that the texts were analysed delicately enough to provide a vivid picture of the degree of compactness in the texts. It wouldn't have been possible to analyse all the 120 texts for compactness because this would be too labourious. The 16 texts were therefore considered adequate for making observations regarding compactness in the texts. From this mini corpus each text was analyzed for cohesive ties and the distance between them and their antecedents. The sum total of the distance between the ties and their antecedents was used to calculate the level of compactness. The distance between a cohesive device and its antecedent is calculated by assigning the
following values:

3 = when there is no intervening sentence between a device and its antecedent
2 = when there is only one intervening sentence between a device and its antecedent.
1 = when three is more than one intervening sentence between a device and its antecedent.

From the preceding paragraphs, it is evident that the method of analysis was basically quantitative. The findings of the study are presented in tables and graphs which serve as vivid illustrations of the differences between the class 4 and class 8 corpus. Further, frequencies and percentages have been worked out for the various occurrences of cohesive devices. These help to indicate which devices are used frequently and to what extent each class uses them. In addition, it has been found necessary to compute difference coefficient figures in order to show what cohesive devices are "over-represented" in each class.
This is calculated as follows (ff pg. 58).

Frequency 8 - Frequency 4  
Frequency 8 + Frequency 4

Frequency 8 and 4 refer to the frequency scores for any cohesive device at class 4 and 8 respectively. For example, the normalized frequency (i.e. out of 100) for class 4 is 17.22% while that of class 8 is 31.39% for reference (f.f. table 4). For example, the normalized frequency (i.e. out of 100) for class 4 is 17.22% while that of class 8 is 31.39% (for reference). The difference coefficient will be:

\[
\begin{align*}
31.39 - 17.22 &= 14.17 \\
31.39 + 17.22 &= 46.61 \\
&= 0.3
\end{align*}
\]

This figure indicates that there is a great difference between the two classes in their use of reference. Class 8 uses more reference devices than their class 4 counterparts.

Where 1.0 is obtained as the difference coefficient, then this is an indication that there is no difference between the two classes with respect to the use of the device in question. Where figures close to 1.0 e.g. 0.9-0.6 are obtained, it is an indication of a small difference between the two classes in the use of the device in question. Small figures such as 0.1-0.4
indicate that there is a big difference between the two classes. In this case, class 8 pupils are said to use the device in question more frequently. Sometimes, negative figures for the difference coefficient indicate that there is a 'surprising over-representation' of a feature or form (in this study - of a cohesive device) at the lower level (standard) than at the higher level. This may be clearly indicative that standard 4, for example in their compositions than their class 8 counterparts are more. In this text drawn from class 4, Lexical Cohesion has the highest occurrence (i.e. 10 times) followed by Reference which occurs 8 times. Conjunction occurs only 2 times. Ellipsis and substitution do not occur in this text, proficient in using the device.
The following table is an illustration of the method used in analyzing the data.

**Table 2: The Procedure of Analysis in two Sample Texts drawn from class 4 and 8 Respectively**

Text 1 Class 4

<table>
<thead>
<tr>
<th>Sentence No</th>
<th>No. of Ties</th>
<th>Cohesive Type</th>
<th>Presupposed item</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>Conjunction</td>
<td>Once upon a time three friends one school</td>
</tr>
<tr>
<td>They</td>
<td></td>
<td>Reference</td>
<td>Three friends one boy</td>
</tr>
<tr>
<td>School</td>
<td></td>
<td>Lexical(R)</td>
<td>glass window</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>One boy</td>
<td>Three friends</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>He</td>
<td>one boy</td>
</tr>
<tr>
<td>the window</td>
<td></td>
<td>lexical(R)</td>
<td>glass window</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>the window</td>
<td>a house</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>the house</td>
<td>a house</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>the boy</td>
<td>one boy</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>the child</td>
<td>the boy</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>He</td>
<td>the child</td>
</tr>
<tr>
<td>wet</td>
<td></td>
<td>lexical(C)</td>
<td>water</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>Her friends</td>
<td>three friends</td>
</tr>
<tr>
<td>him</td>
<td></td>
<td>reference</td>
<td>the boy</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>And</td>
<td>-</td>
</tr>
<tr>
<td>that day</td>
<td></td>
<td>reference</td>
<td>one day</td>
</tr>
<tr>
<td>school</td>
<td></td>
<td>lexical(R)</td>
<td>school</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>this story</td>
<td>preceding text</td>
</tr>
<tr>
<td>a window</td>
<td></td>
<td>reference</td>
<td>window</td>
</tr>
</tbody>
</table>
### Text 2 (class 8)

<table>
<thead>
<tr>
<th>Sentence No.</th>
<th>No. of Ties</th>
<th>Cohesive Type</th>
<th>Presupposed item</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>As I started conjunction</td>
<td>(T)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>walking lexical</td>
<td>school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>school mate reference</td>
<td>Tom</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>it lexical</td>
<td>school</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>that day reference</td>
<td>my ball</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>it reference</td>
<td>one morning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>My school mate reference</td>
<td>my ball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lexical</td>
<td>school mate</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>it lexical</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td></td>
<td>my bag reference</td>
<td>my ball</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Jerry lexical</td>
<td>My ball</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- lexical</td>
<td>Jerry</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>when -</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>peeped through conjunction</td>
<td>CT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>my ball ellipsis</td>
<td>--it</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>suddenly lexical(R)</td>
<td>my ball</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>the house conjunction</td>
<td>(T)</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>the person lexical(R)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>Tom and Jerry Lexical</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>lexical (R)</td>
<td></td>
</tr>
<tr>
<td>Sentence No.</td>
<td>No. of Ties</td>
<td>Cohesive item</td>
<td>Type</td>
</tr>
<tr>
<td>-------------</td>
<td>------------</td>
<td>---------------</td>
<td>----------</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>the water</td>
<td>reference</td>
</tr>
<tr>
<td>17</td>
<td>2</td>
<td>after a while</td>
<td>conjunction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the water</td>
<td>reference</td>
</tr>
<tr>
<td></td>
<td></td>
<td>when</td>
<td>conjunction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the far end</td>
<td>ellipsis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tom and Jerry</td>
<td>lexical(R)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>school</td>
<td>lexical(R)</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>wet</td>
<td>lexical(R)</td>
</tr>
<tr>
<td>20</td>
<td>2</td>
<td>the person</td>
<td>lexical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the window</td>
<td>reference</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>saw</td>
<td>lexical(C)</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>Tom and Jerry</td>
<td>lexical(R)</td>
</tr>
<tr>
<td>23</td>
<td>2</td>
<td>They</td>
<td>reference</td>
</tr>
<tr>
<td></td>
<td></td>
<td>school</td>
<td>lexical(R)</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>They</td>
<td>reference</td>
</tr>
</tbody>
</table>
In this text derived from class 8, four cohesive categories are used: Reference (10 times), Lexical items (16 times), conjunction (5 times) and lastly, ellipsis (2 times). Substitution is not used in this text.

From table 2, it is evident that class 8 pupils use more cohesive devices and also a wider variety of devices which is not the case with their class 4 counterparts. The table also shows the method of analysis and presentation of cohesive devices identified in the texts. Frequency rating on the other hand, are illustrated by means of tables, percentages and graphs (cf. Table 3, 4 and Figure 1). A detailed analysis of cohesive devices in the corpus follows in the next chapter.
4.0 Introduction

In the preceding chapter, a detailed description has been given of the methodology used in the study. This chapter focuses on, firstly, the distribution of the types of cohesive devices occurring in the corpus, secondly a description of the use of such devices in the creation of text by the class 4 and class 8 respondents of this study, and thirdly the level of cohesiveness and compactness achieved through the use of such devices.
4.1 Distribution of the Five Types of Cohesive Devices in the Text

Samples

The study corpus is composed of a total of 120 compositions 60 of which have been obtained from the standard 4 level pupils, and the remaining 60 from the standard 8 pupils. These have an overall length of 29,010 running words. Using the methods of analysis outlined in 2.1, the whole corpus has a total of 4,913 intersentential cohesive devices.

Intersentential cohesive devices are those that occur between sentences for example,

(17) He threw a stone at the window. It broke

(class 4)

Here the occurrence of it ties the second sentence to the first hence creating cohesion. Intrasentential devices, on the other hand, occur within a sentence, for example;

(18) The man has closed his window

(class 4)

(19) Jimmy kicked his ball hard.

(class 8)
In the above sentences cohesion is created by virtue of the use of the pronoun his. This pronoun refers back to the man and Jimmy respectively and is used to avoid repetition and ambiguity.

Intersentential devices attract more attention and are the only sources of texture. Intrasentential devices, on the other hand, require grammatical structure to achieve cohesion such that every sentence that is grammatical tends to be also cohesive e.g.

(20) Jimmy kicked Jimmy's ball hard

(21) Jimmy kicked his ball hard

The sentence in example (20) is ill-formed unless by Jimmy it is meant that there are two persons acting as the subject and the object of the sentence respectively. Hence grammatical structure creates cohesion within a sentence. However, it is not obvious that sentences that are adjacent will be cohesive. e.g.

(22) How is Mary? I am going to the market.

These two sentences have nothing to do with each other. In order for cohesiveness to occur in a text, a writer must learn to string his sentences together. Intrasentential cohesive devices were therefore not considered a source of cohesiveness in this
An analysis of the texts in the study corpus reveal the occurrence of examples of all the five types of cohesive devices as posited by Halliday and Hasan (1976). As already noted in preceding paragraphs, these devices can either be intrasentential or intersentential. It is only when they occur intersententially (i.e., between sentences) that cohesion can be said to occur at a higher level.

The devices that link sentences are either grammatical or lexical. Cohesion, in this case, is expressed partly through the grammar and partly through the vocabulary. Reference, substitution and ellipsis in a text are achieved through grammatical markers while lexical cohesion is achieved through the vocabulary. Conjunction as a means of achieving cohesion can either be grammatical or lexical. However, these distinctions are only a matter of degree as Halliday and Hasan (op. cit) observe.

The following tables summarise the general characteristics with regard to text length and cohesive devices in the study corpus. For ease of comparison between the two classes, it has been found necessary to establish the difference coefficients which serve to show which class has a higher representation of the various devices.
<table>
<thead>
<tr>
<th>Class</th>
<th>No. of composit-words</th>
<th>No. of Sentences</th>
<th>Token/Type ratio</th>
<th>Mean Sentence Length</th>
<th>Mean No. of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>60</td>
<td>8,947</td>
<td>888</td>
<td>9.38</td>
<td>14.8</td>
</tr>
<tr>
<td>8</td>
<td>60</td>
<td>20,135</td>
<td>1,369</td>
<td>12.35</td>
<td>22.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>29,082</td>
<td>2,257</td>
<td>-</td>
<td>18.8</td>
</tr>
<tr>
<td>Different Coeff.</td>
<td>0.4</td>
<td>0.2</td>
<td>0.1</td>
<td>0.4</td>
<td>0.8*</td>
</tr>
</tbody>
</table>

*For Diff. coeff. cf. sect 3.3.
It is evident from table 3 that standard 8 pupils' compositions are relatively longer than those of standard 4 pupils. Furthermore, the mean length of sentences for class 4 and class 8 is at 14.8 and 22.8 sentences per text respectively. From these results, it is evident that class 8 pupils are more able to produce longer texts than their class 4 counterparts. This may be because they have had a longer exposure to the English language.

Is it possible that this difference in length of the two sub corpora can affect the number and distribution of cohesive devices? Research findings indicate that there is no possibility that the length of a composition determines the degree of cohesiveness of a text (cf. Jafarpur in system, 1991 and Yde and Spoelders 1985). The correlation between length and cohesiveness for longer texts is for instance 0.12---0.28 and 0.04---0.18 for shorter texts respectively in Jafarpur's study.

Table 4 below, shows the distribution of the different types of cohesive devices in the two sets of text obtained from the two classes. Due to varying lengths of the texts, a simple counting of cohesive devices would not be a valid technique for comparisons. The analysis and discussion of the different cohesive
devices are therefore based on percentages.

Table 4: Percentage of Each Type of Cohesion for the whole Sample and for the two classes

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>CLASS 4</th>
<th>CLASS 8</th>
<th>TOTAL</th>
<th>DIFF. COEFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCE</td>
<td>846 (17.22)</td>
<td>1542 (31.39)</td>
<td>2385 (46.61)</td>
<td>0.3</td>
</tr>
<tr>
<td>SUBSTITUTION</td>
<td>40 (0.81)</td>
<td>30 (0.61)</td>
<td>70 (1.42)</td>
<td>-0.1</td>
</tr>
<tr>
<td>ELLIPSIS</td>
<td>25 (0.51)</td>
<td>127 (2.58)</td>
<td>152 (3.09)</td>
<td>0.7</td>
</tr>
<tr>
<td>CONJUNCTION</td>
<td>197 (3.62)</td>
<td>321 (6.92)</td>
<td>518 (10.54)</td>
<td>0.2</td>
</tr>
<tr>
<td>LEXICAL</td>
<td>705 (11.56)</td>
<td>1080 (24.77)</td>
<td>1785 (36.33)</td>
<td>0.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1813 (33.72)</td>
<td>3100 (66.27)</td>
<td>4913 (99.99)</td>
<td>0.3</td>
</tr>
</tbody>
</table>

The difference coefficient is calculated as follows:

\[
\text{Frequency 8} - \text{Frequency 4} \\
\text{Frequency 8} + \text{Frequency 4}
\]
Table 4 indicates that the five categories of cohesion are used at both class 4 and 8. However, reference is the most frequent cohesive device in both classes. At class 4, it has an occurrence of 17.22% while at class 8, it occurs 31.39% out of the total occurrence. This is possibly because of the nature of the composition which is a story banned on events, people and things. Reference items are therefore used to refer to these noun classes.

Lexical cohesion is the second most frequently used type of cohesive device in the text sample: 11.56% at class 4 and increasing to 24.77% at class 8. Lexical Reference is actually responsible for these figures and this, like Reference, is common in a composition that is based on people, things and events. Conjunction, ellipsis and substitution have a low occurrence for the two classes. Notable, however, is the higher occurrence of substitution at class 4 than at class 8. It can be suggested that substitution is an earlier device on the interlanguage continuum. Also, it is possible that this is a device that has been transferred by class 4 pupils from speech source it is very common in spoken language which the class 4 pupils are being exposed to.
Ellipsis, which is very similar to substitution is, however, more frequent at class 8. It has been suggested that ellipsis is a device for advanced writers (Perara, 1984) and it is therefore possible that class 4 pupils have not fully mastered it.

Figure 1 below adds more detail to the figures given in Table 4 above:
Figure 1: Graphic Representation of Class 4 and Class 8 Percentage Frequency of Cohesive Devices

Type of Cohesive Device

- R - Reference
- L - Lexical
- C - Conjunction
- E - Ellipsis
- S - Substitution.
From figure 1, it can be noted that the percentage frequency for reference is the highest of all the other categories of cohesion in the corpus. This is closely followed by lexical cohesion; conjunction comes third and ellipsis and substitution follow in that order. Interestingly, class 8 frequency scores are higher than class 4 ones in all the categories except in substitution. The plausible explanation for this may be found in Yde and Spoelders' (1985) observation that substitution is more common in spoken language than in written language. Consequently, it may be argued that since class 4 pupils are being exposed to more spoken language than written language the use of substitution is more frequent in their texts than that of class 8 pupils whose tasks, in language particularly, tend to be written. Class 4 pupils possibly transfer the spoken English forms into their written forms. However, although they use more substitution than their class 8 counterparts, it is not always the case that they use it correctly (see Perera, 1984).

The following table tabulates the specific cohesive ties identified in the study corpus.
Table 5: Number of Cohesive ties for the Study Corpus

<table>
<thead>
<tr>
<th>Class</th>
<th>No. of Composition</th>
<th>Ties</th>
<th>Ties per text (mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>60</td>
<td>1,657</td>
<td>27.62</td>
</tr>
<tr>
<td>8</td>
<td>60</td>
<td>3,256</td>
<td>54.27</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>4,913</td>
<td>40.94</td>
</tr>
<tr>
<td>Diff. Coeff.</td>
<td>0</td>
<td>0.3</td>
<td>0.7</td>
</tr>
</tbody>
</table>
It has already been noted that the corpus yielded 4,913 intersentential cohesive ties. The results are tabulated above. The table indicates that compositions obtained from class 8 pupils have on average almost twice as many cohesive ties as those from class 4 pupils. This tallies with observations such as Hunts' (1965) cited in Scinto, (1986) in which it was noted that the longer the period of exposure of young learners to language the longer their sentences become and hence the more the number of words in their texts. A count of the number of sentences from each set of compositions from the two classes reveal that class 8 texts are almost twice as long as class 4 texts (i.e. an average of 22.8 per composition and 14.8 sentences respectively).

The following subsection gives a detailed description of the distribution of the five types of cohesive devices in the study corpus.

4.2 Types of Cohesive Devices in the Data

As shown in table 4 in the preceding section the five types of cohesive devices postulated by Halliday and Hasan (1976) occur frequently in both sets of compositions. Reference cohesive devices are the most frequent of the devices, being relatively more frequent
at class 8 than at class 4. This is followed by lexical cohesion; conjunction, substitution, and finally ellipsis (cf table 4).

4.2.1 Reference Cohesion

Reference achieves cohesion by virtue of linguistic items, chiefly pronominals, depending on each other for their interpretation. There are two types of reference, endophoric and exophoric reference. This study focuses on endophoric reference only since it is an important aspect of written text. However, as will be noted in the following descriptions, exophoric reference is very frequent especially in texts written by class 4 pupils.

Endophoric reference can either be anaphoric or cataphoric. Anaphoric reference occurs when a reference item refers back to preceding text for example,

(23) The man came out of the house. He was very angry

(24) He threw a stone at the window. It broke

(25) There was a boy on the pavement. Another boy came and joined him.
In example (23) he can only refer to the man in the first sentence; in example (24) it can only refer to the window in the first sentence and in example (25) another boy does not refer to the same boy but the word Another can only be understood with reference to the boy in the first sentence. These are all instances of anaphoric reference.

Cataphoric reference, on the other hand occurs when the reference item refers to the following text, for example,

(26) This frightened her. The death of her pet was a blow to Mary.
(27) It was large. The farm was finally bought by the institute.

In the examples in these sentences, the use of this and it can only be understood with reference to the following text. If somebody said "it was large", the listener would ask "what was?"

Standard 8 pupils use cataphoric reference largely and especially to generate suspense in their texts.
Whether it is anaphoric or cataphoric, reference can either be personal, comparative or demonstrative (ff Sect 4.2.1.1). Table 6 shows the distribution of the three types of reference in the study corpus.

Table 6: Distribution of the Three Types of Reference in the Data

<table>
<thead>
<tr>
<th>Category of Reference</th>
<th>Class 4 (8947 running words)</th>
<th>Class 8 (20135 running words)</th>
<th>Diff Coeff</th>
<th>Total 29010 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal reference</td>
<td>471 (19.72)</td>
<td>1082 (45.31)</td>
<td>0.4</td>
<td>1553 (65.03)</td>
</tr>
<tr>
<td>Demonstrative reference</td>
<td>359 (15.03)</td>
<td>435 (18.22)</td>
<td>0.1</td>
<td>794 (33.24)</td>
</tr>
<tr>
<td>Comparative reference</td>
<td>16 (0.07)</td>
<td>25 (0.1)</td>
<td>0.2</td>
<td>41 (1.7)</td>
</tr>
<tr>
<td>Total</td>
<td>846 (34.82)</td>
<td>1542 (63.63)</td>
<td>0.3</td>
<td>2388 (98.45)</td>
</tr>
</tbody>
</table>
It is evident from the table that all the categories of reference are more frequent in class 8 than in class 4 texts. Class 4 pupils tend to use a lot of nominal repetitions whereas class 8 pupils prefer to use referential devices. A few examples may illustrate this.

(28) He decided to go and stone the house. He left his friends. He went to the house. He threw the stone. (class 4)

(29) We laugh at him. We left him crying. We went away. (class 4)

There are a lot of repetitions in the above examples. There are also examples of occurrence of exophoric reference. Some of the texts can only be interpreted exophorically since the use of reference is purely situational. This is evident in examples in sentences (30) and (31).

(30) The stone went through there. (class 4)

(31) The man of that house went out. (class 4).
in which interpretation is possible only with reference to the situation rather than the surrounding text. The pupils take it for granted that the reader is present in the situation in which that text is being constructed. The reader, therefore is supposed to know who and what the pupils are referring to. In example (30) for example, there refers to the window that the child can see in the picture. That house in example (31) refers to the house the child can see, also, in the picture and which the reader is expected to have seen. There are many examples of exophoric reference especially in class 4 texts. It may be observed that when used in a text, such reference can create comprehension problems because the reader may not always be aware of the context of situation that the writer makes reference to.

4.2.1.1 Personal Reference

In terms of personal reference, the forms that are used in the study corpus are predominantly third person she/he forms. These ones achieve a cohesive effect when they make reference to the preceding text. Without the referent, the text becomes incoherent.

(32) A man is very angry because somebody has thrown
a stone to his window. He is very angry with him.  
(class 4)

(33) The man is angry with somebody to throw and broke his window. He has dan bad thing to him.  
(class 4)

In the above examples, the use of the pronouns he and him do not specify clearly who the referent is. There is ambiguity of reference as such. He in example (32) for instance, can refer to a man and him to somebody else and vice versa. This also applies to example (33) in which ambiguity arises because pronouns are used without specifying the referent. Most examples of this form of ambiguity are more prevalent in class 4 texts than in class 8 texts.

The use of personal pronouns also creates problems as inconsistencies arise where the pronouns used do not agree in gender and number with the referents in the surrounding text.

Consider:

(34) The boy was very wet. She was filling coal.  
(class 4)
(35) He through the stone on someone's window. The owner of the house came out and stand near the road. He was unhappy because they broke his window.

(class 4)

From these examples, it is evident that the pronouns they and she refer back to the referents he and the boy respectively. Perhaps, problems of this kind are caused by the fact that the pupil writes a very long sentence and forgets easily what noun he is referring to. He ends up using the pronoun as singular or masculine or vice versa.

In class 4 texts, there is also a problem in the use of proforms. They are sometimes overused and at other times, underused. This can be illustrated by the following examples:

(36) The man entered the house. There was nothing in the house.

(class 8)

(37) We laugh at him. We left him crying. We pity him.

(class 4)

In example (36) there is repetition of the nominal group (the house) which could have been avoided by use of the proform it.
In example (37), there is over use of pronouns (we and him) which makes the text monotonous.

Sometimes, the pronouns used, especially by class 4 pupils create inconsistencies with regard to the role of the pupil as narrator. This occurs very frequently when the pupil forgets his role as narrator and gets involved in the episodes of the text.

Consider:

(38) They lived three good children. They were going to school. One boy was very knoty. On the way to school, the knoty boy ran away from us. He threw a stone to the window. His two other friends were going to school.

(class 4).

In this example, the pupil switches from being an observer to being a part of the story hence the use of us instead of them. Grammatical errors such as They instead of There and Knoty instead of naughty can also be noted in the above example. Such errors, however, do not interfere with the overall comprehension of the text.
4.2.1.2 Demonstrative Reference

Demonstrative reference is the second most preferred strategy for reference. It has an occurrence of 33.2% of the total use of reference in the study corpus as compared to 65.03% for personal reference.

Demonstratives are a form of verbal pointing whereby the speaker identifies the referent by locating it on a scale of proximity. Demonstratives include: the definite article the, the pronouns this, that, these and those and the adjuncts of place and time here, there, now and then. They can be used both exophorically and endophorically. Demonstratives in an exophoric sense occur in class 4 texts more frequently than in class 8 ones. The most frequent examples involve those that point directly to what could only be identified in the context of situation.

Consider:

(39) The man saw that boy. But that boy didn't saw he.

(class 4)
Then the man came out of his house. The man was very angry because of his windows was broken.

(Class 8).

In example (39) which is an example of intrasentential cohesion and (40) it is evident that pupils from both levels have difficulty in maintaining an endophoric text. "That boy" and "the man" refer directly to the pictures in front of the writer. This is why a reader will find it difficult to identify the referent since the writer is talking about "that boy" and "the man" "that I can see in front of me" respectively. Consequently, the referents in these examples can be found outside the text.

To a larger extent, class 8 pupils demonstrate more skill in the use of demonstratives to maintain an endophoric text than their class 4 counterparts. For example, most of the demonstratives occurring in their texts have referents within the text as opposed to those frequently used by class 4 children. Example (40) derived from the class 8 sub-corpus is indeed quite rare at class 8 as demonstrated by examples from their sub-corpus.
Also unlike their class 4 counterparts, class 8 pupils choose a wider range of demonstratives. This is evident in the following examples:

(41) Tanui had broken one of Mr. Kago's window. Inside the house, Mr. Kago wondered who had done that mess.

(42) The owner of the house went to see how his window was damaged. When he reached there he found John trying to take some cakes.

(43) The man came back and poured on him the soapy water. This taught Will a lesson.

In example (41), the use of that together with a near synonym mess refers anaphorically to the whole process of breaking the window in question. The use of this in example (43) refers to the preceding text i.e. "the man ..." The use of there in example (42) is as an adjunct of place indicating a place near the window that is being described in the text.
Class 4 texts use the definite article very often as a specifier as opposed to the other demonstratives. The use of the in fact accounts for 78.34% of the use of the demonstratives in their texts. Sometimes, the referent is an extended passage of text where the demonstrative anaphorically points at the whole preceding text. This is quite frequent especially in class 4 texts. Their stories almost always end with a conclusion such as:

(44) This teaches us that when you see a window do not take a stone and broke it.

(class 4).

(45) That taught Peter a lesson and he is now a polite boy.

(class 8).

These examples illustrate the use of demonstratives to indicate extended reference. This for instance, refers to the whole story that has been narrated while that refers to the punishment meted out to Peter in the preceding text.
Comparative reference involves comparison with regard to identity, similarity or difference. It can also involve comparison in terms of quality and quantity. This is where the nominal group gains importance because it is here where quality and quantity are expressed. In the nominal group, numeratives and epithets are concerned with the quality and quantity of the head noun. These, in turn do have a cohesive effect.

Numeratives and epithets are found within the nominal group functioning as pre modifiers. This may be illustrated by the following examples:

(46) The first rainy night was unbearable.
(47) Ten blue books were placed on the table.

(Personal examples)

In example (46) first is a numerative and rainy is an epithet. In example (47) Ten is a numerative and blue
is an epithet. Numeratives give quantity while epithets give quality.

The infrequency of numeratives and epithets in the study corpus may be attributed to the fact that children at these levels have been observed to write minimal nominal groups (e.g. Maina, 1991).

Hardly any examples of comparatives occur in class 4 texts and only a few examples can be identified in class 8 texts. The use of comparatives can be illustrated as follows:

(48) The owner of the house howled at us to answer him. We could not believe that Mr. Roberts could be such a terror.

(class 8)

(49) They saw a house in the background. This was the third House they had seen so far.

(class 8)

(50) When they passed the house, he threw a stone and at once hit the same window that was repaired.

(class 8)
He decided to take a pale of hot water to wash the window. But he saw a small boy picking stones. He crept slowly and brought some more hot water.

In these examples, the use of such, the third, the same (window) and more (water) achieve cohesion by showing comparison with what has gone on before in preceding text. They are therefore used anaphorically. Such in example (48) is anaphoric in the sense that it refers back to the nominal group Mr. Robert. The use of the third (house) in example (49) indicates comparison by using the numerative - in other words, the third house was not the same as the first and the second that they had seen. The use of the same (window) in (50) illustrates comparison by showing identity. It therefore coheres with preceding text as it refers anaphorically to a window that is mentioned earlier in the text. And in (51), the use of more shows comparison by quantity. It is anaphoric to preceding text since it points to the nominal group "a pale of hot water". Owing to the small size of the nominal group produced in the study texts, the use of comparatives is quite rare and as such not much can be said about their use. In the following sub-section the focus is on the use of lexical cohesion in the study corpus.
4.2.2 Lexical Cohesion

This type of cohesion is achieved through the vocabulary. This happens when similar or related lexical items are used in successive sentences. This creates connections at both near and far positions, in the text. It is these connections that make the text cohesive.

The level of vocabulary is important in determining a writer's use of lexical cohesion and as such recourse is made here to the word types and their frequencies in class 4 and class 8 texts. The results are tabulated in table 7 below. To throw more light on the vocabulary level, a comparison is made between texts in this study corpus and native speaker texts and secondary level English texts based on a study by Nyamasyo (1992).
Table 7: The First 50 most Frequent words in class 4, class 8, Secondary Level, and Native English Corpora (LOB) Respectively

<table>
<thead>
<tr>
<th>Rank No.</th>
<th>Whole study</th>
<th>Class 4</th>
<th>Class 8</th>
<th>Secondary Native level English (LOB)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>the</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>and</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>he</td>
<td>4</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>to</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>a</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>was</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>window</td>
<td>7</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>boy</td>
<td>3</td>
<td>27</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>house</td>
<td>9</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>of</td>
<td>10</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>his</td>
<td>16</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>12</td>
<td>were</td>
<td>11</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>that</td>
<td>24</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>14</td>
<td>him</td>
<td>19</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>we</td>
<td>15</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>school</td>
<td>12</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>I</td>
<td>-</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>they</td>
<td>20</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>on</td>
<td>23</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>20</td>
<td>it</td>
<td>36</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>21</td>
<td>one</td>
<td>14</td>
<td>24</td>
<td>27</td>
</tr>
<tr>
<td>22</td>
<td>had</td>
<td>21</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>23</td>
<td>water</td>
<td>22</td>
<td>28</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>went</td>
<td>31</td>
<td>26</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>stone</td>
<td>32</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>26</td>
<td>in</td>
<td>33</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>27</td>
<td>man</td>
<td>17</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>28</td>
<td>but</td>
<td>35</td>
<td>23</td>
<td>-</td>
</tr>
<tr>
<td>29</td>
<td>at</td>
<td>26</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>30</td>
<td>going</td>
<td>18</td>
<td>44</td>
<td>-</td>
</tr>
<tr>
<td>31</td>
<td>when</td>
<td>37</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Rank No.</td>
<td>Whole study</td>
<td>Class 4</td>
<td>Class 8</td>
<td>Secondary level</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
<td>---------</td>
<td>-----------------</td>
</tr>
<tr>
<td>32</td>
<td>as</td>
<td>-</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>33</td>
<td>saw</td>
<td>27</td>
<td>31</td>
<td>-</td>
</tr>
<tr>
<td>34</td>
<td>very</td>
<td>41</td>
<td>37</td>
<td>-</td>
</tr>
<tr>
<td>35</td>
<td>children</td>
<td>13</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>36</td>
<td>so</td>
<td>34</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>37</td>
<td>with</td>
<td>38</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>38</td>
<td>then</td>
<td>25</td>
<td>49</td>
<td>-</td>
</tr>
<tr>
<td>39</td>
<td>out</td>
<td>28</td>
<td>47</td>
<td>-</td>
</tr>
<tr>
<td>40</td>
<td>there</td>
<td>29</td>
<td>42</td>
<td>-</td>
</tr>
<tr>
<td>41</td>
<td>my</td>
<td>-</td>
<td>34</td>
<td>11</td>
</tr>
<tr>
<td>42</td>
<td>owner</td>
<td>40</td>
<td>46</td>
<td>-</td>
</tr>
<tr>
<td>43</td>
<td>came</td>
<td>-</td>
<td>43</td>
<td>-</td>
</tr>
<tr>
<td>44</td>
<td>for</td>
<td>39</td>
<td>30</td>
<td>12</td>
</tr>
<tr>
<td>45</td>
<td>because</td>
<td>42</td>
<td>41</td>
<td>-</td>
</tr>
<tr>
<td>46</td>
<td>not</td>
<td>-</td>
<td>36</td>
<td>17</td>
</tr>
<tr>
<td>47</td>
<td>who</td>
<td>30</td>
<td>48</td>
<td>35</td>
</tr>
<tr>
<td>48</td>
<td>what</td>
<td>-</td>
<td>35</td>
<td>-</td>
</tr>
<tr>
<td>49</td>
<td>day</td>
<td>43</td>
<td>45</td>
<td>-</td>
</tr>
<tr>
<td>50</td>
<td>from</td>
<td>-</td>
<td>38</td>
<td>37</td>
</tr>
</tbody>
</table>

From table 7, it can be noted that there is a close relationship between the class 4 and class 8 vocabulary with those in other related corpora. For example, at least half the first fifty words in the LOB occur in the class 8 corpus. This perhaps may indicate that the vocabulary in the study corpus is similar to that in the LOB. This is also evident in the fact that over half of the lexical terms in the study corpus also occur in the secondary level corpus. It may therefore be the case that class 4 and class 8 lists are indicative of stages in the interlanguage continuum. This is further indicated by a comparison of the vocabulary of secondary level English and LOB and Brown respectively (see Nyamasyo, 1992: 101-2).

The simpler function words such as the, and, he, to and a, for example, are on top of the word rank list for all the four corpora. However, difficult function words such as for, of, from, it, in and as rank higher for native and secondary level English word list compared to that of class 4 and 8. This demonstrates that although similar words are used across the 4 corpora, the level of their use increases with language proficiency.

It can be noted in passing that it is possible that the task for this present study contributed to the type
of vocabulary used. However, the table indicates that one of the differences in the corpus compared arises from subject words such as school, boy, man etc. and that the greatest difference is caused by the variations in the use of function words. It can, therefore, be safely stated that the class 4 and class 8 corpora have a smaller range of vocabulary compared to the native and secondary level English ones.

Further, it may be noted from the table, that class 8 children have a wider vocabulary than class 4 children. This is evident in the fact that almost all the ranks occurring in the complete corpus occur in the class sample. There is only one rank missing in the class 8 sub corpus, as compared to 7 in the class 4 one. This means that class 8 pupils are able to apply a wider range of lexical items in their text. This could be the reason why they use more lexical items to achieve cohesion as compared to their class 4 counterparts.

The following table gives a break down of the distribution of the two types of lexical cohesion in the sample.
**Table 8: The Distribution of Lexical Cohesion in the Sample**

<table>
<thead>
<tr>
<th>Category of Lexical Cohesion</th>
<th>Class 4</th>
<th>Class 8</th>
<th>Diff Coeff</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reiteration</td>
<td>473</td>
<td>759</td>
<td>0.2</td>
<td>1232</td>
</tr>
<tr>
<td></td>
<td>(38.39)</td>
<td>(61.61)</td>
<td></td>
<td>(69.0)</td>
</tr>
<tr>
<td>Collocation</td>
<td>232</td>
<td>321</td>
<td>0.2</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>(41.95)</td>
<td>(58.05)</td>
<td></td>
<td>(30.98)</td>
</tr>
<tr>
<td>Total</td>
<td>705</td>
<td>1080</td>
<td>0.2</td>
<td>1785</td>
</tr>
<tr>
<td></td>
<td>(39.50)</td>
<td>(60.50)</td>
<td></td>
<td>(100%)</td>
</tr>
</tbody>
</table>
As noted elsewhere, lexical cohesion is second after reference in the sample texts. Lexical cohesion in the study corpus is achieved mostly through reiteration. Collocation enjoys a very small application (i.e. 30.98%). Class 8 pupils use more reiteration and collocation than the class 4 pupils. Class 4 texts, in general, tend to use simple word repetitions which make their texts very repetitive. Class 8 pupils, on the other hand, tend to use synonyms, near synonyms, superordinates, hyponyms, meronyms and antonyms. It is possible that this is due to their wider vocabulary which they can apply over a wider area than their class 4 counterparts. Following is a discussion of reiteration.

4.2.2.1 Reiteration

Reiteration achieves cohesion when one lexical item refers back to another to which it is related by having a common referent.

Consider:

(53) John went and hid beneath the window. The fool did not know that Mr. Roberts was already watching him. (Class 8)
In example (53), the reiterated item is a general noun fool which is accompanied by a reference item the. The indicates that John is the referent. The use of an anaphoric reference item, the definite article 'the' to indicate referents of sentences is very frequent in the text samples particularly class 8 texts. As Halliday and Hasan (1976) note, the reference items that accompany the reiterated lexical item cannot be argued to be achieving cohesion by reference.

Rather, cohesion is created by the direct relations of the forms that are involved e.g. John and fool in the above example.

Most pupils use lexical cohesion frequently in their texts. The most consistent use of lexical cohesion, particularly, reiteration, is observed where simple repetitions rather than synonyms, near synonyms and superordinates are used.

Consider:

(54) He filled a bail with water and then poured water on him. The water was very cold that he started shivering.

(class 8).
(55) One boy saw a house with glass window. He take a stone and throw it on the window. The window got broken.

In both examples (54) and (55) one lexical item refers back to another to which it is related by having a common referent. Being repetitions of the common nouns, they are accompanied by the reference item, the which makes the identity of the reference clear. In example (54) for example water and the water cohere by indicating that the water is the same one referred to in the preceding sentence. The texts show that the use of simple repetitions of lexical items such as the ones in the examples above account for 79.2% of all the occurrences of reiteration in the whole corpus. These examples therefore suggest that there is a very close connection between lexical cohesion by reiteration and reference cohesion especially as achieved by the definite article, the or other demonstratives such as this, that, and other.

Reiteration by use of synonyms is also common particularly in the class 8 texts. This perhaps is attributable to the fact that owing to a longer exposure to language standard 8 pupils have a wider vocabulary which they manipulate skillfully to produce text. This
can be illustrated further in:

(56) a minute later, a short plump man was at the door. The fat man asked us who caused the havoc (class 8).

(57) "Chris do you remember yesterday when this plumber cained me?" "... intend to teach the imbecile a lesson. The fool only cained me because I ..."

(class 8).

In these examples, repetitions are used in quite interesting ways. This is in the sense that lexical items which share the same sense are reiterated. It is interesting to observe that such examples are very rare in class 4 texts. This could be due to the fact that the use of synonyms requires a writer to have a relatively wide vocabulary which, as has been noted, is not true for class 4 pupils.

Sometimes the use of general words in reiteration achieves cohesion in the texts. This is more common in class 8 than the class 4 ones. In class 4 texts for example, general words are almost non existent.
Consider:

(57) He splashed the water on Alex's face. He screamed so hard that one could think he was being eaten by an animal. We left the poor boy there wiping himself.

(class 4).

(58) We shouted to him to leave that place. The fool remained there and realized too late that he was in trouble.

(class 8).

(59) He instead threw the stone deliberately on the man's window ... The man came out of the house wearing an angry face and looked in all directions while his eye seeking for the intruder.

(class 8).

In these examples, the general noun in cohesive function is accompanied by the reference item the. This reference item is anaphoric hence the two combined function as an anaphoric reference item. Use of superordinates is quite frequent especially in class 8.
texts. However, it does also occur to a lesser extent, in class 4 texts. The following examples illustrate their use in the texts:

(60) One chilly Monday morning ... The day had started badly for me.

(class 8).

(61) We rushed and hid among the shrug. John took refuge under the window.

(class 8).

(62) Peter hit the window and it broke. The owner came out of his house. He shouted at us asking who had destroyed his property.

(class 8).

(63) There are three children. They are two boys and one girl.

(class 4).
In these examples, cohesiveness is achieved by having a relationship where two lexical items have an inclusive relationship. Morning is related to day in the sense that it is a member of the class day. To take refuge also includes hiding. Children include boys and girls. By use of superordinates, pupils achieve cohesiveness in text by relating sequences of sentences.

Closely related to the use of synonyms are hyponyms, meronyms, and antonyms. These are very common in both class 8 and 4 texts. Their use tends to form chains of relationships and this gives the texts texture, thus;

(64) House ................. window
doorsitting roomkitchen
bath tub etc.

All these lexical items share the relationship of "part" to "whole" i.e. they are all part of a house. Whole texts in the data have chains of such meronyms running through them. This is what is considered as bringing about cohesion in a text. This may further be illustrated by the example in:
The chain in (65) is another example of a meronym. The lexical items are part of school. The chains developed from use of the two words (house and school) are quite frequent in all the text samples.

Consider:

(66) Will was a noty and cheeky boy ... This taught Will to be a good and prudent boy.

The sentence in (66) gives an example of an antonym. In this particular text, noty (sic) and cheeky come at the beginning of the text, good and prudent are used to describe Will and they therefore achieve cohesiveness of text because of the contrast that they indicate. Antonyms are quite frequent in text samples from both classes.
To conclude this sub-section, it may be noted that reiteration is a popular device for creating inter-sentential cohesion both at class 4 and at class 8. However at standard 4, reiteration is used to a lesser extent compared to class 8.

4.2.2.2 Collocation

Collocation is another way in which lexical cohesion is achieved in the text samples. This type of cohesion comes about when lexical items have a tendency to co-occur. Such items are normally those that share the same semantic field. Sometimes, lexical items create long cohesive chains with related word patterns weaving in and out of successive sentences. This is shown in the sentences in examples (67) to (71) drawn from both levels.

(67) The water was very dirty. The stinking water made him smell bad.

(68) On their school they had sports that day. In short races ... in long races ... short put ... a trophy. (class 8)
(69) A man pored water on him. He started crying because he was wet.

(class 4).

(70) By the door there is the owner of the house. He is very sad. He looks unhappy.

(class 4).

(71) I think he went to fetch water. They soon heard a loud splash. Peter was soaked to the skin.

(class 8)

It is evident from these examples that lexical items that have the tendency of co-occurring create cohesion. The occurrence of dirty, stinking and smell creates cohesion since these words belong to the same semantic field.

The presence of water and wet is cohesive by virtue of one implying the other i.e. wet presupposes water. Sad and unhappy when used in close proximity create cohesion since there is a relationship of part to part.' Example (71) drawn from a class 8 text illustrates how
cohesive chains are created by use of related words in successive sentences. Water, splash and soak are related in the sense that splash and soaked presuppose water.

Having examined the use of collocation in the sample texts, it is interesting to note that it is almost non-existent in class 4 texts. Notwithstanding, lexical cohesion is very frequent in the text samples from both classes and it is more often than not marked by reiteration of simple words. Reiteration by use of synonyms, superordinates and general nouns is more prevalent at class 8 than at class 4. It is plausible that class 4 children use less of these devices to achieve cohesion because of their limited vocabulary. Out of 8947 words there are only 730 types which is a mere 8.2% of the total for standard 4 texts. At class 8, 20135 words yield 2376 types which represents 11.8% of the total. Clearly children at these two levels lack an adequate vocabulary and it is possible that this contributes a great deal to the repetitive texts obtained particularly from class 4 pupils.

4.2.3 Conjunction Cohesion

Conjunctions, as already noted, (cf. sect 2.1.2) create cohesion by virtue of their meanings. They carry
various meanings i.e. adversative, additive, temporal and causal. It is because of these meanings that conjunctions help in linking linguistic elements that occur in succession. The conjunction that links one sentence to another creates cohesion by spelling out the semantic relations between the propositions that the sentence expresses. In comparison to lexical and referential cohesion, conjunctive devices occur less frequently in the text samples from both classes. They take 10.5% of the total occurrence of cohesive devices in the study corpus while reference and lexical cohesion take 46.61% and 36.33% respectively.

The following are examples of how the different meanings of conjunctive devices express cohesion in the texts of class 4 and 8 pupils:

(72) He called and no one answered. By then Andrew and Peter were going on with our journey to school. (class 8).

(73) "Why don't you bury the hatchet with him? Besides, a hen's curse won't bother the hawk. (class 8).
(74) We were already late for school. But we don't mind, instead we continued walking to school.

(class 8)

(75) "Help! help!" Justus cried. Because they were far away, they couldn't hear.

(class 8)

(76) He was hiding under the wall and Mr. Irungu couldn't see him. So he went back to the house.

(class 4)

(77) He threw it to the window and it broke. The next minute we saw a huge man standing at the door.

(class 8)

By then and The next minute in examples (72) and (77) are examples of temporal conjunctives, Besides is an example of additive conjunctive while But in (74) is an example of an adversative. Because and So in (75) and (76) are examples of causal conjunctives. These will be dealt with in detail in the subsequent section.

The following table shows the distribution of conjunctive devices in the sample:
Table 9: Distribution of Conjunctive Devices in the Sample Texts

<table>
<thead>
<tr>
<th>Conjunctive Category</th>
<th>Class 4</th>
<th>Class 8</th>
<th>Total</th>
<th>Difference Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporal</td>
<td>99</td>
<td>213</td>
<td>312</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>(31.73)</td>
<td>(68.27)</td>
<td>(60.23)</td>
<td></td>
</tr>
<tr>
<td>Additive</td>
<td>87</td>
<td>77</td>
<td>164</td>
<td>-0.1</td>
</tr>
<tr>
<td></td>
<td>(53.05)</td>
<td>(46.95)</td>
<td>(31.66)</td>
<td></td>
</tr>
<tr>
<td>Causal</td>
<td>8</td>
<td>19</td>
<td>27</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>(29.63)</td>
<td>(70.37)</td>
<td>(5.21 )</td>
<td></td>
</tr>
<tr>
<td>Adversative</td>
<td>3</td>
<td>12</td>
<td>15</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>(20.00)</td>
<td>(80.00)</td>
<td>(2.90 )</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>321</td>
<td>518</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>(38.03)</td>
<td>(61.97)</td>
<td>(100%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 9 shows that temporal connectives are the most frequent type of conjunctive device. This is closely followed by the use of additive conjunctives. Causal and adversative conjunctives are, on the other hand, quite infrequent. It is also evident that class 8 pupils use more conjunctive devices than class 4 pupils. This is attributable to the fact that class 8 pupils have had a longer exposure to English and are therefore able to use a wide variety of them.

In both groups of pupils, the temporal connectives especially then and and then are over used. Other connectives that are very frequent are those that generally appear in speech such as and, but, so, first, next, later, after that etc. Connectives that are restricted to written language such as further more, in addition to that, more over, on the other hand, in other words etc. are almost non existent in the text samples from both classes. The preponderance of temporal connectives over the other conjunctive devices is possibly due to the nature of the topic. The pupils are writing a composition based on a sequence of events and this chronological order is marked by the temporal connectives. However, it is plausible to suggest that a story already suggests a sequence of events and to use temporal conjunctives to show this sequence is not
Class 4 pupils tend to overuse some conjunctives especially the temporal ones. This has resulted in very monotonous writing as illustrated by the following examples:

(78) When the man heared the noise, he went out of his door. Then the boy hide. Then the man went back to his house. Then the boy picked another stone. Then the man went and brought some water.

(class 4).

(79) He picked a stone and throw to the window. And then he hide. And then the man of the house come out. And then he went back to the house.

(class 4).

In these examples, the pupils use the temporal connectives then and and then to indicate the chronological pattern of events. However, as can be noted from the examples, these connectives are not necessary since the story they write is chronological and does not therefore depend on temporal connectives to
achieve this chronological sequence. It is possible that temporal conjunctives are more predominant in class 4 texts than in class 8 ones perhaps because they are acquired much earlier than the other conjunctives.

The text samples from class 8 pupils also reveal the occurrence of temporal connectives but their application shows more skill in their use than observed at class 4. This may be illustrated as follows:

(80) He then took a stone to break the window but it mist. Then he took another stone. This time he aimed at the window.

(class 8).

(81) The man was disappointed with what Nick had done. After a short time the man brought a pipe of water through the window. Suddenly Nick was wet everywhere.

(class 8).

In both (80) and (81) there is no repetition but rather temporal connectives are used to give specificity, for example, to indicate time interval.
Additive connectives are also a frequent means of achieving cohesion in the sample texts in the data. The most commonly used additive is and.

It is important here to differentiate between the conjunctive use of and and the structural use of and. In the structural sense, as in example (83), and helps to achieve co-ordination. This cannot be termed as cohesion as its use serves to join pairs of items which occur in the structure of the language. In cohesion, on the other hand, and functions differently. In example (82) and is used as an additive relation operating between sentences. It can only therefore function between two sentences of a text to achieve cohesion:

(82) He heaved the rock aside with all his strength. And there in the recesses of a deep hollow lay a glittering heap of treasure.

(Halliday and Hasan, pg. 235).

(83) The boy was sent to buy milk, bread and tea leaves.

The text samples in this study give high frequencies for and both as a structural and as a cohesive relation.
And in these two forms appears 832 times or 2.86% of the total appearance of words ie 29,082 words in the study corpus. Examples (84) and (85) further show how and is used at class 4.

(84) His cloths were wet. Then he started crying. And that is the end.

(class 4).

(85) He has done a bad thing to him. And he leaved the window.

(class 4).

In example (84), the use of and can be termed to be cohesive because it relates the sentence to the preceding one. However, in example (85) the use of and is structural since the sentence beginning with And is actually a part of the previous one. There is no need, therefore to put a fullstop between the sentences in example (85). A lot of examples of this kind of use occur in the text samples in the study corpus although these have not been counted as means of cohesion.
Examples in (86) and (87) below illustrate the more complex forms of additive relations occurring mostly in the class 8 pupils' texts.

(86) as we walked along the road we came near a house. Then suddenly, James recalled something! Do you remember yesterday when this man cained me thoroughly? he asked. Besides, he only cained me because I had tumbled over him.

(class 8)

(87) He went and took a stone and through on the window. He threw another stone after a while. Again, he went for another stone.

(class 8).

Here, the pupils use the emphatic forms of the and relation. They thus achieve cohesion by emphasizing what they have already stated in the preceding text.

Causal and adversative relations are rare in the texts. The causal relation is chiefly achieved by the use of so (cf Appendix 4). In its different functions of conjunctive, intensifier and substitute, so occurs 106
times or 0.36% of the total occurrence of words (29,082) in the study corpus. Examples (88), (89) and (90) below illustrate the three occurrences of so in the study corpus:

(88) They were so wet until he could no longer walk.
   (class 4).

(89) "I want to kill a bird he said. "So he went and took a stone and aimed at it.
   (class 8).

(90) When he arrived home, Abed was punished. Abed regretted why he had done so as it is said regrets come after.
   (class 8).

In (88) so functions as an intensifier which tells us the extent or degree of wetness in the sentence. In (89) so functions as a causal conjunctive giving us the reason for the picking of a stone.

In (90) so functions as a substitute, such that it implies there's something Abed did in the preceding text.
and this is being signalled by so. Our concern here is especially the use of so to achieve cohesion through causal relations.

In examples (91) and (92) below which are drawn from the texts of both classes, cohesion is achieved by the use of conjunctive so.

(91) They persuaded Tom but he completely refused to listen to their advice. So he laid his books on the grass and took a ball and gave it a very hard kick.

(class 8).

(92) He did a bad thing to break the window. So the man poured water on him. So he started crying. Then we left him.

(class 4).

In the above examples, the use of so conveys the meaning of "as a result."

The causal relation is also achieved through the use of therefore but this is very rare. It occurs only 2 times of 0.006% or 29,082 the running words in the study corpus.
(93) Advice is very important in our life. Therefore we must listen to advices.
(class 8).

(94) There were many trees which were dry near by. Therefore, they made a rustling sound.
(class 8).

The adversative relation is achieved chiefly through the use of but. This is common in both class 4 and class 8 texts. In fact, but in intersentential and intrasentential cohesion represents only 0.48% of the total running words in the study corpus (i.e. 29010). Intrasentential but at 0.34% achieves a higher frequency of occurrence in total running words in the study corpus, than intersentential but with a frequency of occurrence of only 0.14%. Examples (95) and (96) below show how intersentential but and intrasentential but are used by class 4 and class 8 pupils:

(95) They persuaded him not to but he ignored their advice.
(class 8).
(96) He was trying to see if it had succeeded. But nobody appeared so he sat again.

In (95), but connects two clauses of the sentence so it is an intrasentential device while in (96) But connects two sentences and it therefore is an intersentential device.

The use of but in intersentential cohesion is the focus of analysis at this point in the study and hence attention is paid to this in the following examples:

(97) He called out aloud and asked, "who is that who has broken my window?" But no one answered him.

(class 8).

(98) He stood trying to see if it had succeeded. But nobody appeared so he sat again.

(class 8).

It is interesting to note that at class 4, the texts lack any indication of use of intersentential but although but is used commonly within sentences as is seen in example (99) below:
Adversatives occur more frequently in the class 8 text samples than in the class 4 ones. They are also marked by the use of however. This is, however, quite infrequent even among class 8 pupils since it occurs only 3 times (i.e. 0.01% of 29,082 words) in the whole study corpus. Examples in (100) and (101) illustrate that though used as a conjunctive however tends to be wrongly used by the pupils:

(100) We left him to play because he was kindling a fire that he could not put off. However, the proverb goes "a stitch in time saves nine." We had not finished a second when the ball hit the window.

(101) "Let's throw some sand through that open window and then hide behind the wall. "He said. but John and Mary disagreed with his idea and told him that something may happen to them. However, Edwin gathered a little sand and hurled it to the window.
Here, however is used incorrectly in the sense that it does not express contrast as it is supposed to. It can, therefore, be considered a complex form which the students have not yet fully acquired and learnt how to use.

Although is also used as an adversative but it is quite infrequent as it has only 4 occurrences (i.e. 0.013% of 29082 words) in the whole corpus. It also tends to be used incorrectly whenever it occurs as illustrated in example (102):

(102) The owner noticed someone under his window. Although he saw Jane and Owiti on the road he went inside.

(103) We heard a loud sound of glasses breaking. Although we were shocked we went on with our journey.

In (102), although is misplaced and does not serve to give cohesion by connecting the new sentence to the
preceding one. In (103) however the use of although achieves cohesion by spelling out the meaning relation between the two propositions in the given sentences.

The preceding discussion on conjunctives has not been exhaustive but has been quite suggestive on the nature of the use of conjunctives by the two groups of pupils. It appears from these examples that conjunctives increase in use over the years and that a higher frequency of occurrence is observed in class 8 texts than in class 4 ones. This is further complemented by the complexity in their forms of use at class 8 as compared to class 4.

In the following section, attention is drawn to the use of substitution and ellipsis to achieve cohesion of text in the writing of both class 4 and class 8 pupils.

4.2.4 Substitution and Ellipsis

Substitution and ellipsis are presented as different categories by Halliday and Hasan (1976) although in recent studies (e.g. Perera, 1984) the two have been listed as one form of cohesion. This is because they are very closely related and are actually mutually inclusive of each other. Halliday and Hasan (Ibid) define ellipsis
as a form of substitution where the element to be substituted is replaced by zero. Substitution, on the other hand, occurs when a nominal group, verbal group or clausal element is deleted and in its place, another element is inserted in order to signal the gap. At other times the segment deleted is replaced by nothing. This means that a gap is left where something is required to make sense. This, in turn, is called ellipsis. In this study ellipsis and substitution are treated separately in order to capture the major differences between them and at the same time to analyse each use more delicately. The examples below drawn from Halliday and Hasan (Ibid) serve to illustrate the differences between substitution and ellipsis.

(104) (a) My axe is too blunt. I should get a sharper one, just like you did, don't you think so?

(b) What do you want the sharper axe for?

(c) Chopping Wood

(Halliday and Hasan: 1976.)

In (104) (a) One is a nominal substitute, did a verbal one and so is a clausal substitute. Sentence
(104)(c) has an example of substitution by zero, hence it is an instance of ellipsis. The clause "I need a sharper axe for ..." has been deleted because from the preceding sentence, the listener can easily fill in the gap left out by supplying, in his mind, the missing clause. It can be noted, therefore, that ellipsis and substitution are forms of achieving cohesion that utilise assumptions ie that the reader or listener can easily supply the missing element in a gap within a text. In what follows here, we will pay more attention to ellipsis.

4.2.4.1 Ellipsis Cohesion

It is evident from table 4 (cf section 4.1) that ellipsis occurs much less frequently than reference, lexical and conjunction cohesion in the text samples of both class 4 and 8 pupils. It's total percentage of occurrence in the whole corpus (i.e. 29,081 words) is as low as 3.09% while that for reference, lexical and conjunction are 48.61%, 36.33% and 10.54% respectively.

Out of the 3.09% occurrence of ellipsis in the study corpus, it can be observed (cf table 10) that much of the use of this device is at class 8.
Table 10: Distribution of Ellipsis in the Study Corpus

<table>
<thead>
<tr>
<th>Ellipsis Category</th>
<th>Class 4 (8,947 Words)</th>
<th>Class 8 (20,135 Words)</th>
<th>Total (16,457 Words)</th>
<th>Difference Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal</td>
<td>22 (14.47)</td>
<td>120 (78.95)</td>
<td>122 (73.55)</td>
<td>0.7</td>
</tr>
<tr>
<td>Verbal</td>
<td>3 (1.97)</td>
<td>6 (3.95)</td>
<td>9 (4.92)</td>
<td>0.3</td>
</tr>
<tr>
<td>Clausal</td>
<td>0 (0)</td>
<td>1 (0.66)</td>
<td>1 (0.66)</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>25 (16.45)</td>
<td>127 (83.55)</td>
<td>152 (100)</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Table 10 further confirms that ellipsis is very rare in the text samples in the study corpus. As noted earlier (sect 4.1), ellipsis takes 3.09% of the total number of ties in the study corpus. Out of this nominal ellipsis for both class 4 and 8 pupils has the highest frequency, followed by verbal and clausal ellipsis respectively. Although class 4 pupils use ellipsis to some extent, clausal ellipsis is non-existent in their text samples. Clausal ellipsis, which involves leaving a whole clause out of the sentence in question, can be said to be a more demanding task than either verbal or nominal ellipsis. It is plausible therefore, that class 4 pupils, who are at the lower level of the interlanguage continuum in this study, have not yet developed the use of clausal ellipsis in their texts. Most examples of
ellipsis, as in examples (105-110) are mostly obtained from class 8 text samples which tend to have a higher frequency of the use of this device.

(105) When it reached evening they packed their books and started the journey home. On the way [ ] Peter met a stone and there was a house nearby.

(class 8).

(106) When he came, he found the pieces of the window glass and he saw that his window was broken. Then he peeped through the broken part [ ] and saw the boy.

(class 8).

(107) what have you been doing all this time? [ ] picking stones.

(class 8).

(108) Chris, "do you remember yesterday when this plumber called me?" "Yes [ ], James [ ], "he replied.

(class 8)

(109) As he ate the chapati, the man went back to the house. The chapati was so sweet that he wanted another [ ].

(class 8).
(110) One day there were three little children going to school. On the way [ ] one child kept his books done.

(class 4).

In examples (100-110) it is evident that in ellipsis, cohesion is achieved by deletion of an element that the reader is supposed to supply from the preceding text. The deleted element is marked by brackets for the purpose of easier identification. Most other examples noted in the texts involve ellipsis in the nominal group just as the ones above. In (106) for example, the missing element is [of the window] while in example (109) the missing element is [chapati]. Furthermore in example (110) which is derived from a class 4 text, the missing element is [school]. This kind of example is quite frequent in class 4 texts probably because nominal ellipsis is a simpler form than the other two types of ellipsis.

Ellipsis of the verbal group ranks second in occurrence with a percentage of 5.92% of the total occurrence of ellipsis devices in the corpus. In example (107) for instance, the verbal element [I have been] is omitted. Ellipsis involving clausal elements is quite
infrequent in the text samples. In example (108) ellipsis of the clausal type is achieved by omission of the clause [I remember yesterday when this plumber called you]. Whenever clausal ellipsis occurs in the text samples, it tends to be a response to a yes/no question as indicated in example (108).

Table 10 further shows that there is no evidence of clausal ellipsis from the class 4 texts. This is attributable to the fact that ellipsis is a somewhat complex device and therefore standard 4 pupils being less proficient in the language have not fully acquired it. Also as Perera (1984) notes, ellipsis involves both recognition of common elements (even when their form is transmuted) and knowledge of the rules governing their omission. Elliptical utterances occur after the comparable full structure has been mastered which is possibly not the case at class 4. Class 4 texts like those of native speakers aged 9-10 years are deficient of ellipsis as a means of achieving cohesion (Perera, 1984). Consequently, text samples from class 4 pupils, show evidence of repetition of elements which should have been deleted in order to achieve cohesion.

In examples (111) and (112) below the texts are quite repetitious and monotonous because opportunities
for utilising ellipsis are wasted:

(111) There are three children. The three children are going to school. One of the three children is carrying a stone. The other two children are walking on the road.

(class 4)

(112) His cloth was wet. His books was wet and he was wet.

(class 4).

In the examples given in (111) and (112) the use of ellipsis could have solved the problem of repetition which is apparent in the texts. However, the pupils are not able to apply it. In the following subsection a description of the use of substitution in the study corpus is made.

4.2.4.2 Substitution Cohesion

Substitution, like ellipsis occurs in the clause, the verb and the noun group. It is marked by the use of one do and so as shown in example (104) (cf: section
4.4). Substitution creates cohesion by virtue of the deleted elements and the substitutes that mark this gap. This is why whenever a reader sees a substitute element, he always goes to the surrounding text to supply the missing element. The word(s) that replace the gap must be grammatically appropriate for the gap which they are supposed to occupy. This is especially so in terms of grammatical agreement in number and tense.

Substitution has the smallest distribution in the text samples i.e. 1.42% as compared to 3.09% in ellipsis (cf table 4, section 4.1). This is perhaps because in substitution, it is not enough to replace a gap with nothing as in ellipsis. One has to replace it with a place holding item such as do, so or one. The table below illustrates the distribution of substitution in the whole sample.
Table 11: Distribution of Substitution in the Text

Samples

<table>
<thead>
<tr>
<th>Substitution Category</th>
<th>Class 4 Words</th>
<th>Class 8 Words</th>
<th>Total</th>
<th>Difference Co-effcient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal</td>
<td>(8,947)</td>
<td>(20,135)</td>
<td>(39,082)</td>
<td>-0.1</td>
</tr>
<tr>
<td>Verbal</td>
<td>(14.29)</td>
<td>(4.29)</td>
<td>(18.58)</td>
<td>-0.3</td>
</tr>
<tr>
<td>Clausal</td>
<td>(14.29)</td>
<td>(4.29)</td>
<td>(18.58)</td>
<td>-0.1</td>
</tr>
<tr>
<td>Total</td>
<td>(57.15)</td>
<td>(42.86)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

Table 11 (cf also table 4) shows that substitution is more frequent in the class 4 texts than in the class 8 ones. It is possible to suggest that substitution is more frequent in spoken language than in written language (cf Yde and Spoelders, 1985). As has been noted (cf sect. 4.1) it is evident from the primary school syllabus that the teaching of English at class 4 involves more speaking than writing (K.N.E.C. Primary school syllabus, 1986). Even what is written at this level is mostly dictation (which is speaking!). This perhaps is the reason why class 4 pupils, who are being exposed to more spoken than written language, use more substitution in their writing than class 8 pupils. It is therefore reasonable to suggest that the substitution structures they use in
their texts are mostly transferred from spoken language. In fact, this notion of transfer occurs in many other aspects of language. For instance, class 4 pupils have problems in maintaining an endophoric text because of the many assumptions they make about a reader since they are not accustomed to the written medium of communication. It is also possible to suggest that substitution is an earlier device in the developmental profile and this would therefore account for its predominance in the text of 'beginners' (i.e. class 4) and its relative scarcity in the texts of maturer learners (i.e. class 8). Furthermore, Table 11 reveals that nominal substitution has the highest distribution in the whole sample. Verbal and clausal substitution, on the other hand, are very infrequent.

(113) Abed was told that he would sleep outside there without any beddings or food. Abed regretted why he had done so.

(class 8).

In example (113) so is a clausal substitute for what has transpired in the preceding text. It substitutes for the clause [broken a window].
(114) Samson took a stone, went to the kitchen window and it didn't break. He then took another stone and threw with all his might. That one mist. He took a third one. It hit the window.

(class 8).

The nominal substitute one in example (114) is used to replace the missing nominal group [stone]. The text samples from both levels reveal a higher frequency of nominal substitution than verbal and clausal substitution. In fact, the use of one in its various forms occurs 116 times or 0.4% of the total occurrence of words in the whole corpus although its use as a substitution item is minimal.


(class 4).

In example (115) from a class 4 text sample, the nominal substitute ones replaces the nominal group [races].
Mr. Sanga looked through the window and saw no one apart from Dorothy and Richard. He looked again and saw no one apart from the two.

In (116) from a class 8 text, the nominal substitute [the two] replaces the nominal group [Dorothy and Richard].

Finally, it can be noted that although class 4 pupils use nominal substitution more frequently than their class 8 counterparts, they still have problems with regard to agreement in number which sometimes makes their texts incoherent e.g.

(117) The story tells us to be good boys. That ones is not a good boy.

In the example above ones is a nominal substitute for the nominal group [boy] and it is clear that the pupil has problems in determining or using the proper agreement. (118) below is also an example of wrong use of agreement.
One in (118) above is a nominal substitute that replaces (stone) but the plural use of the demonstrative these means that the pupil does not understand whether one is a plural or singular form, or possibly whether these is singular or plural.

Verbal substitution is marked by do in the text samples in the study corpus. Do in its various uses occurs 20 times which is 0.069% of the total occurrence of words in the whole study corpus. As a substitution item, it occurs as an answer to a question as in examples (119) - (120) which are derived from both class 4 and class 8 text samples.

(119) Mr. Roberts asked us who broke his window. We told him that Andrew did and he was very angry.

(120) Who wants to play hide and seek? asked Mary. "we do." We all answer.
In (119) did is a verbal substitute for the verbal group [break ...] and in (120) do is a verbal substitute for the verb group [we want to play]. As is evident in Table 11, verbal substitution is quite infrequent in the study corpus. Clausal substitution is even more infrequent in the corpus:

(121) He decided to take a pale of hot water to wash the window seal. But when he wanted to do so he saw a small boy picking stones.

(class 8).

In the example in (121) drawn from a class 8 text, so is a clausal substitute and it replaces the whole clause [to take a pale of hot water and wash the window seal]. Although so occurs 106 times (0.36%) of the total occurrence of words in the whole corpus, it is more often than not used to mark conjunction than to mark substitution, for example:

(122) The boy was crying because he was wet. So the other children started laughing at him.

(class 4).
Abed was told that he would sleep outside there without any beddings or food. Abed regretted why he had done so.

So in example (122) is used as a conjunctive item showing result. It is an example of causal conjunction.

In example (123) so is a clausal substitute which substitutes for the clause which occurs much earlier in this text [broke a window]. In a way of concluding, it can be observed that the text samples from both levels in this study corpus indicate that ellipsis and substitution are complex devices for children. This is further supported by the fact that they occur very infrequently in the texts in this study corpus. The texts obtained, especially from class 4 pupils, therefore tend to be repetitive because they do not employ enough ellipsis and substitution to avoid repetition.

Further it is worth noting that although class 4 and class 8 pupils employ cohesive devices to make their texts cohesive, there are differences in the way each class uses these devices. As is evident in tables 4-11, both class 4 and 8 pupils use cohesive devices but class 8 texts display a creative use of the devices leading to highly cohesive texts. This clearly emerges from the way
class 8 pupils use more cohesive devices than class 4 pupils. In addition, class 8 pupils choose a wider variety of cohesive devices and use them more frequently as compared to class 4 pupils who are very limited in the application of the devices. It can be argued that one main difference between the two levels is their difference in the use of cohesive devices. Class 4 texts are generally repetitive and therefore monotonous while class 8 texts are interesting to read since they are not repetitive.

4.5 Levels of Cohesiveness and Compactness in the Text Samples

Cohesiveness, as noted by Yde and Spoelders, (1985) "is not a matter of all or nothing, but of more or less". A text is therefore judged for cohesiveness in terms of degree, which is a measure of how connected the text is with respect to its structural composition. A text is said to be cohesive when units of lower rank in the text function within each other as in example (119) rather than just being juxtaposed as in example (120):

(119)(i) John and Mary are going to school.

(ii) They are carrying bags.
When are you going to the market?
She asked for that needle.

In (119), they functions within the preceding sentence hence it is cohesive. In (120), however, there is no suggestion that the second sentence is connected to the first one although they stand in juxtaposition. Juxtaposition is therefore not enough to create cohesion.

The degree of compactness, on the other hand is the degree to which each successive sentence feeds off an immediately preceding sentence in building the text. For instance, in (119) it is evident that sentence (2) feeds off immediately from sentence (1) while in example (120) sentence (ii) could be linked to a sentence further above sentence (i). This means that there is a greater distance between the cohesive ties within the sentences. Hence, the text is less compact. Scinto (1986) notes that "The greater the number of immediately adjacent ties, the tighter or more compact the structure of a text as a whole" (cf sect. 2.1.3.3).

In other words, the greater the degree of connectivity texts exhibit as whole compositions, the closer the binding of constituent elements. The three types of adjacency which help explain this aspect of
connectivity are identified as:

a. adjacent  
b. penadjacent  
c. antepenadjacent as dealt with in a preceding chapter (cf 2.1.3.3).

To these types of adjacency various values are given depending on the distance between cohesive ties. When 2 ties are adjacent, the value 3 is given, when they are penadjacent, the value 2 is given and when they are antepenadjacent, the value 1 is given. It is evident from these values that when a text exhibits a lot of adjacent ties, then the text achieves a high measure of compactness (cf 2.1.3.3). The degree of cohesiveness and compactness may be calculated using the formula:

\[ \lambda = \frac{W(A)}{V}, \]  
\[ \lambda = \text{degree of cohesiveness}, \]  
\[ W(A) = \text{the number of ties}, \]  
\[ \text{And } V = \text{the number of sentences}. \]

Compactness is given by the formula:

\[ C = \frac{\sum W(adj)}{V}, \]  
\[ C = \text{degree of compactness}, \]  
\[ V = \text{No. of sentences}. \]
$W(\text{adj}) = \text{the sum of the weighted values of the cohesive ties between the sentences for adjacency.}$

When there are no intervening sentences between the cohesive elements and their antecedents, the value 3 is assigned, when there is one intervening sentence the value 2 is assigned. When there are two or more intervening sentences, the value 1 is assigned (cf 2.1.3.3).

To compute these two measures of text, a text is segmented into sentence units. This is particularly important for the class 4 texts in this study corpus for they tend to lack punctuation marks. To determine sentence boundaries, a sentence is divided into segments consisting of main clause with a finite verb and any minor clauses attached to it. A suitable method of segmentation, as developed by Scinto, is as follows:

(1) a single theme-rheme nexus consistent with a grammatical pattern of noun phrase-verb phrase constitutes a single sentence.

(2) A theme-rheme nexus with subordinate clause constitutes a single sentence.
(3) Where "and" conjoins two theme-rheme nexuses that can be shown to be otherwise syntactically and semantically independent (i.e., each constituting an independent theme-rheme pattern each is counted as a single sentence).

This method of segmentation has been adopted to deal with the texts in both samples, since without punctuation (as in class 4 samples) a text almost always looks incoherent and can therefore be given an unfair judgement. Class 8 texts are well punctuated with initial capital letters at the beginning of sentences and full stops at the end. They therefore do not need further segmenting like the class 4 texts. The following table gives the score for the degree of cohesiveness:

Table 12: Mean Scores for Degree of Cohesiveness

<table>
<thead>
<tr>
<th>Class</th>
<th>No. of Ties</th>
<th>No. of Sentences</th>
<th>Cohesiveness (Ties/Sentences)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1,657</td>
<td>888</td>
<td>1.866</td>
</tr>
<tr>
<td>8</td>
<td>3,256</td>
<td>1,369</td>
<td>2.378</td>
</tr>
<tr>
<td>Total</td>
<td>4,913</td>
<td>2,257</td>
<td>2.177</td>
</tr>
</tbody>
</table>
Table 12 shows that class 8 texts are more cohesive than class 4 texts (i.e. 2.378 compared to 1.866). This may be attributed to the fact that class 8 pupils have had a longer exposure to the English language, and are more able to write in English in particular as is indicated in the syllabus. They have more written tasks in their language in particular as is indicated in the syllabus. They have more written tasks in their language classrooms as compared to class 4 pupils whose tasks are mostly oral (cf K.N.E.C syllabus, 1986).

With regard to compactness, it may be noted that the values 3, 2, and 1 which are assigned to cohesive ties indicate the distance between a cohesive device and its antecedent. In each of the mini sample texts (cf sect. 3.1) therefore, these values have been assigned to the cohesive ties observed in the texts (see Appendix 5 for example of analysis). The values have then been added together and using the formula given in the intial part of this section, the degree of compactness has been calculated.
Table 13: Mean Scores for Degree of Compactness

<table>
<thead>
<tr>
<th>CLASS</th>
<th>No. of Compositions</th>
<th>W(adj)</th>
<th>No. of Sentences (W(adj)/sentences)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>8</td>
<td>473</td>
<td>186</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>789</td>
<td>209</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>1262</td>
<td>395</td>
</tr>
</tbody>
</table>

In Table 13, W(adj) refers to the total weight in terms of adjacency of cohesive devices to their referents in compositions in the mini corpus (f.f. appendix 5). Every composition in the mini sample has had its cohesive devices graded in terms of the 3 types of adjacencies and these have then been added up thus giving the figure W(adj). The figure obtained at class 4 (ie 473) indicates that the cohesive devices in these compositions are separated by a longer distance from their referents as compared to those in class 8 (ie 789) compositions. This means that class 8 compositions have sentences that are highly connected unlike class 4 ones and hence their compositions read better.

From Table 13, therefore, it is evident that class 8 text samples have a significantly higher degree of
compactness, i.e., the degree to which each successive sentence feeds off an immediately preceding sentence, than class 4 ones. The table also shows that there is a smaller distance between a cohesive element and its antecedent in the class 8 text samples than is the case in the class 4 texts. This means that in class 8 texts, a reference item, for example, comes immediately after its referent and hence the distance is said to be smaller. A smaller distance between a cohesive item and its referent leads to a highly compact text as opposed to a longer distance. In class 4 texts, some cohesive items are separated by many sentences from their referents and this means that their texts are less compact than those in class 8.

It should be noted however, that there is a very small difference between the measures of cohesiveness and of compactness in both text samples. This shows that the two measures are related in a way such that a text which is cohesive tends to be also compact. This is because the number of cohesive devices in a text gives it its level of cohesiveness and at the same time the distance between these devices and their referents gives the text its compactness. Both indices therefore depend on the way cohesive devices are used in the text.
In concluding this chapter, it should be remarked that though cohesion is marked by the five types of cohesive devices identified by Halliday and Hasan, (1976) there are still substantial differences in their application by the two levels of learners. These differences seem to be consistent, with class 8 pupils using more cohesive devices which are also more complex than their class 4 counterparts. It is possible to suggest that this is as a result of their being at a higher proficiency level on the interlanguage continuum as compared to class 4 pupils. The examples discussed in the preceding pages suffice to illustrate the point that a text's cohesive nature cannot be absolute, rather it is a matter of degree or of more or less. It has been observed that a lexical item may serve as a conjunction maker or a substitution maker for instance. This means that the distinction between the various categories cannot be drawn in absolute terms. Notwithstanding, the various categories of cohesion have been discussed separately for the sake of being precise and clear.

In what follows in the next chapter, we give a general overview, concluding remarks and suggestions emanating from what has been discussed in preceding chapters.
5.0 Introduction

The preceding chapters in this study have focused on three main concerns, namely:

(i) an examination and description of the types of cohesive devices used by class 4 and class 8 primary pupils.
(ii) a comparison of the cohesive devices used by these pupils and
(iii) a determination of the degree of cohesiveness and of compactness achieved by the two groups in their written texts.

This chapter therefore focuses on the general and specific conclusions that emerge from this study.

5.1 Review of objectives and Research Premises

The study on cohesion in texts of primary level pupils in Kenya was guided by three objectives and two premises which are stated in the introductory chapter (cf
sec. 1.5 - 1.6) of the thesis. Briefly, the three objectives reproduced here are:

1. To describe the types of cohesive devices occurring in the written English of class 4 and class 8 pupils.
2. To compare the use of the cohesive devices by the two groups of pupils.
3. To describe and compare the degree of cohesiveness and of compactness in the written compositions at each class.

The research premises are:

1. The higher the facility of the child in the English language, the higher the number of types of cohesive devices occurring in the child’s written English.
2. The greater the exposure to the English language, the greater the complexity in the use of cohesive devices in the written English.

The results of the study as will be shown below, can be said to concur with these objectives and premises.
5.2 Summary of Results

This study was based on three frameworks namely: inter-language model, cohesion model for text analysis and a functional model of written text. These were used on a complementary basis to examine and describe the data. The following conclusions can be drawn on the basis of this analysis:

1. Pupils at both class 4 and 8 use the five categories of cohesive devices as identified and described by Halliday and Hasan (1976). These categories are reference, lexical, conjunction, ellipsis and substitution cohesion.

2. Further, in describing the various categories, reference has the highest frequency rating for both class 4 and 8 texts. Furthermore, class 8 pupils tend to use reference as a cohesive device in their writing much more frequently than their class 4 counterparts.

Specifically, reference is achieved mostly through the use of pronominals rather than demonstratives as observed in the two groups.
It is also chiefly anaphoric rather than cataphoric. However, problems are noted at class 4, especially with the use of reference.

3. Lexical cohesion has a higher frequency rating at class 8 than at class 4. It can be postulated that this is due to the wider vocabulary of class 8 pupils compared to that of class 4 ones. (cf 4.2.2). Specifically, cohesion is achieved here mostly through reiteration than collocation. Problems of repetitive texts are noted at class 4.

4. Conjunction as a cohesive device is more frequent at class 8 than at class 4. The more complex forms of conjunction such as "besides", "therefore," "although" etc. occur only at class 8. Class 4 texts tend to use the simpler conjunctions such as "and", "and then" and "so". In fact, their use is so repetitive that once again, their texts become monotonous. Both classes have problems in the use of certain conjunctions eg "therefore" and "however."
5. Ellipsis and substitution are almost non-existent in the texts of both groups of pupils. This finding confirms other studies e.g. Harris (1980), King and Rentel (1981) and Kroll et al (1980) all cited in Perera (1984) that substitution and ellipsis are devices for "advanced" writers and children rarely use them. It is plausible to conclude that these two categories of cohesion have not been fully mastered at these two levels.

As Harris (op cit) suggests children and teenagers as well, write repetitive texts probably because they compare in discrete "even units" such that each new action signalled by a time adverbial, is perceived as an autonomous whole. The processes of ellipsis and substitution work within event units but not between them.

Following the above findings, a more general conclusion can be reached in the context of the research premises and objectives stated earlier. This is that class 8 pupils use more cohesive devices in their writing and at the same time, they choose more complex forms of each cohesive category than their class 4 counterparts. As a result of this, class 8 pupils' texts are more cohesive and compact than those of class 4 pupils.
5.3 Pedagogic Implications of the Results

Before giving pedagogic implications a brief account of the background of the learners with regard to the English language is in order.

Firstly, the Kenyan primary level learner is in a multi-linguistic environment. Pupils in any class come from varied linguistic backgrounds. This is especially true of urban areas where this study was carried out. This is an advantage because a common medium which is almost always, English, is chosen for instruction. This ensures a faster mastery of the English language than for those pupils in the rural areas.

Secondly, English is taught right from standard 1 with the emphasis being on rote learning of items. The theoretical basis for this type of approach to the teaching of English is outdated as it hinges on Skinner’s Verbal Behaviour model strongly criticised by Chomsky (1959). This approach is a disadvantage to the learners because it does not allow for free writing but rather guided writing (cf: K.N.E.C. syllabus 1986). It is no wonder that the syllabus gives strict procedures for the teaching of each item both in the grammar and writing.
What is surprising is that there is no evidence in the syllabus or course books for the teaching of composing, nor the teaching of cohesive devices, essential for writing meaningful text. Instead, there is a lot of emphasis on the mechanics of writing such as spelling and punctuation.

As a consequence, the findings of this study are important to the teaching of English in Kenyan primary schools. This, in particular involves syllabus designers (e.g K.I.E.), writers of English course materials' and teachers. The use of a computer-based corpus of learners' language, for instance, enables the researcher to process the text materials easily and systematically. Such a corpus can be useful to the teacher, and materials writer in assessing the nature of the learner's language. Teachers can benefit from a computer-based corpus as it will help them identify particular items in the language of their learners that need special attention since they have not been mastered. In some categories like reference, for example, class 4 pupils have difficulties in the use of pronominals and also in maintaining an endophoric text. This is confirmed by findings by other researchers such as Bereiter (1983). Much can be done in improving the use of pronominals by providing materials that use a variety of language rather than repetitive
language. The teacher may also be able to note those pronominals that give pupils problems and hence give them more time in teaching. This will also be possible for other categories such as conjunction and lexical cohesion.

Further, the English teacher will benefit from this systematic analysis of cohesive categories because he can, for example, isolate the particular types of devices and focus on those that give problems to the learners.

In this study corpus, it can be noted that although the five categories of cohesion occur at both class 4 and class 8, there are differences in frequency rating and also in levels of difficulty. Categories such as ellipsis and substitution, which have low frequency ratings, would suggest that these have not been fully mastered by the pupils. This could possibly be due to the complexity of the structure involved, and in the difficulty of appropriate use; it could also be due to the fact that the learning resources used in teaching them do not incorporate them. Thus pupils have very little practice in using them appropriately. Furthermore, it could be because the pupils have as yet to reach that level of competence along the interlanguage continuum.
Another suggestion is that there is need for an analysis of the contents of the learning materials to determine what is omitted. An analysis of the theoretical framework on which the learning resources are based is also important in determining whether the resources are based on current theories that have been found acceptable or not.

Finally, the frequency ratings for the various devices indicate which ones are difficult to master. For each category, there is a further division of the sub-categories with their frequency ratings. This is important since it points out clearly which specific category has not been mastered and within this, the specific sub-category. This gives a wider scope to a textbook writer who may wish to revisit this area in order to produce learning materials that are useful in increasing the use of those categories that have not been fully mastered.

We conclude this section by urging teachers especially at class 4, to give more free-writing composition tasks rather than guided ones to pupils in class 4 in order to increase emergence of coherence in their composing.
5.4 Limitations and Possible Further Research

As it may be already clear to the reader there are certain areas within this thesis that have received minimal treatment. For instance, it has not been possible to deal, in any detail, with the sources of incoherent texts in the study corpus although it is obvious that cohesive devices alone are not the only measures of cohesiveness in text. This does not mean, however that these other elements are of no consequence but rather that they warrant further study, and in a degree of detail that is beyond the scope of the present study. These elements as noted earlier include intentionality, acceptability, informativity, situationality, and intertextuality (cf Beaugrande and Dressler, 1981).

Further, it may be noted that analysis of cohesion from one type of written text is likely to show only part of the picture. This is because the topic and purpose for writing may favour the use of only particular types of cohesive ties. Use of cohesive devices, may therefore have been masked because of the choice of topic. However, the reader can appreciate the difficulty of choosing a topic that will ensure the use of all cohesive devices.
Finally, it may be noted that the discussion on the use of cohesive devices has not been exhaustive given that it has focused on only class 4 and class 8 subjects. It remains for future research to substantiate these findings with data collected from respondents in a larger sample, and also from other levels of the school in Kenya.


K.N.E.C. (1986). *Primary School Syllabus*


### APPENDIX 1

**COHESIVE CATEGORIES IN THE STUDY CORPUS (ADAPTED FROM HALLIDAY AND HASAN (1976))**

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>1. Pronominal</td>
<td>he, his</td>
</tr>
<tr>
<td></td>
<td>2. Demonstrative</td>
<td>the, that</td>
</tr>
<tr>
<td></td>
<td>3. Comparative</td>
<td>more, last</td>
</tr>
<tr>
<td>Substitution</td>
<td>4. Nominal</td>
<td>one</td>
</tr>
<tr>
<td></td>
<td>5. Verbal</td>
<td>do</td>
</tr>
<tr>
<td></td>
<td>6. Clausal</td>
<td>so.</td>
</tr>
<tr>
<td>Ellipsis</td>
<td>7. Nominal</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>8. Verbal</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>9. Clausal</td>
<td>0</td>
</tr>
<tr>
<td>Conjunction</td>
<td>10. Addition</td>
<td>and</td>
</tr>
<tr>
<td></td>
<td>11. Contrast</td>
<td>but</td>
</tr>
<tr>
<td></td>
<td>12. Causal</td>
<td>because</td>
</tr>
<tr>
<td></td>
<td>13. Temporal</td>
<td>next</td>
</tr>
<tr>
<td></td>
<td>14. Continuation</td>
<td>well</td>
</tr>
<tr>
<td>Lexical</td>
<td>15. Same(root)</td>
<td>depend,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dependance</td>
</tr>
<tr>
<td></td>
<td>16. Synonym</td>
<td>angry, mad</td>
</tr>
<tr>
<td></td>
<td>17. Superordinate</td>
<td>car, vehicle</td>
</tr>
<tr>
<td></td>
<td>18. General item</td>
<td>car, thing</td>
</tr>
</tbody>
</table>
Write a story based on the following pictures.
APPENDIX 3

TWO SAMPLE TEXTS FROM CLASS 4 AND

CLASS 8