

Table 3: T-text comparing the means of the control and the experimental groups in comprehension test

T-value Critical	Degrees of Freedom	Probability	T-value Observed
1.671	48	.05	2.501

Since the t-values observed exceeds the t-value critical, one can be sure that the experimental group whose texts was modified in terms of lexical cohesion did worse than the control group whose texts were unchanged in the comprehension test. Then we can say that the third hypothesis of this study is accepted too.

Conclusion and Implication

Since lexical cohesive devices have a direct effect on reading comprehension and because language proficiency level is directly related to the recognition of these devices in reading, it is reasonable to put more emphasis on lexical cohesive devices in our language teaching programs. On the other hand, material developers should be encouraged to develop appropriate teaching materials containing lexical cohesive devices for different proficiency levels and different linguistic backgrounds because production of suitable teaching materials is an important part of every teaching program. They can also use these devices in designing activities and exercises. English teachers also can use these devices and teach them to students and reveal lexical cohesive sub-types in different textbook. This helps students understand the text better because awareness of cohesive devices can have a positive effect on reading comprehension (Mokhtary, 1998). Finally, teachers can develop some exercises to teach devices and in this way improve students' knowledge of lexical cohesive sub-types.

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منبع فارسی:

مختاری، رمضانعلی، ۱۳۷۷، تأثیر آگاهی از عوامل انسجام درون متنی در درک مطلب خواندن. پایان نامه کارشناسی ارشد، تهران: دانشگاه علامه طباطبائی

students. These students were at grade one. In order to determine the proficiency level of the students, a Nelson Test Battery (A) was administered. According to the results of the test, 25 students out of 75 were found atypical and consequently were excluded from the list. Finally, 50 students were selected and divided into two groups: 25 in the experimental group and the other 25 in the control group.

Materials and Instrument

The first instrument utilized in the process of the development of the present study was a Nelson Test Battery (A) which was composed of 22 vocabulary and 31 reading comprehension items. The second instrument consisted of 10 comprehension tests. The materials used for these tests were derived from English Book Two.

Procedures

After the administration of Nelson Test Battery (A), 50 students were chosen. These students were randomly divided into two groups: control and experimental. In order to determine the homogeneity of these two groups, a t-test was performed. The means of scores of these two groups were estimated. There were no significant difference between the performance of these two groups.

Treatment

The text chosen for the experiment was given to the control group. Then this text was manipulated. Since the device **same item** was the most frequent in all the high school English text, its instances in this text were left out. The edited text was then given to the experimental group. After that, a series of 10 comprehension tests was given to both groups. On the mean scores of these two groups in this comprehension test, a t-test was run to investigate the third question of this study.

Investigation of the First and the Second Hypotheses

To investigate the hypotheses of this phase, high school English textbooks were analyzed in terms of lexical cohesion according to the model proposed by Halliday and Hasan (1976). The result of this analysis is shown in table 1 below:

Table 1: The distribution of lexical cohesive sub-types in high school English textbooks

	Same Item	Synonym	Superordinate	General Word	Collocation
English Book One	75.72	6.44	0.96	0	16.88
English Book Two	72.27	7.86	1.17	0	18.7
English Book Three	63.92	9.79	2.87	2.49	20.93

This table shows that there is some change in lexical cohesive sub-types when the level of high school English textbooks increases. From this table, it is evident that this change has a specific order. Then we can say that the first and the second hypotheses of this study are accepted.

Investigation of the Third Hypothesis

To investigate the third hypothesis, a series of comprehension tests were given to both experimental and control groups. Then the means and the variances of these two groups were calculated on the basis of their scores in the comprehension test. The results are shown in table 2 below:

Table 2: The means and the variances of the two groups in comprehension test

	Number of Subjects	Sum of Scores	Mean out of 10	Variance
Control Group	25	196	7.84	3.47
Experimental Group	25	162	6.48	3.92

To statistically maintain the difference between the means of the control group and the experimental group in the comprehension test, a t-test was run. The results are presented in Table 3 below:

coherence

Lexical Cohesion

cohesive ties

here **the whole thing** is a general word for John Smith's **essay**. The last sub-division of lexical cohesion is collocation which refers to the association of lexical items that regularly co-occur in a text. The following example illustrates the point:

5. *A little fat man of Bombay was **smoking** on a very hot day. But a bird called a snipe flew away with his **pipe**.*

in this example, there is collocation between **smoking** and **pipe**.

The present study is a search for the application of the concept of cohesion to the analysis of texts.

Research Hypotheses

The purpose behind this study is two-fold: first it tries to find the distribution of lexical cohesive sub-types in high school English textbooks, second it aims at investigating the impact of lexical cohesion on reading comprehension. In order to reach the results of the study, three hypotheses were proposed:

1. There is some change in lexical cohesive sub-types when the level of high school English textbooks increases.
2. This change is systematic.
3. Decrease in the number of lexical cohesive sub-types has a negative impact on reading

comprehension.

This research was done in two phases:

1. Phase One of the Research

Method

The data of this phase, i.e. the texts were derived from high school English textbooks. The method utilized for the analysis of these texts was the model proposed by Halliday and Hasan (1976). High school English textbooks consist of 22 different texts; each text was analyzed separately. For each sentence, first we identified all the lexical cohesive ties it contained. Second, for each of these ties we specified what type of lexical cohesion was involved in terms of repetition, synonym and so on. Finally, for each tie we specified which word or expression it presupposed in the preceding sentence(s). Some statistical analysis of lexical cohesive sub-types was carried out to determine the frequency of lexical cohesive sub-types in high school English textbooks.

2. Phase Two of the Research

Subjects

Subjects of this study were 75 high school male

respect to itself and therefore cohesive (1976, p.23). Texts have features and properties of their own that make them distinct from isolated sentences. Two such properties are cohesion and coherence (Widdowson, 1978). Van Dijk (1977) defines coherence as the underlying semantic relation which turns the words, sentences or propositions into a unified understandable whole and is achieved by interpreting each individual sentence and relating these interpretations to one another. Yule (1985) believes that the key to understand coherence is not available in the language. People themselves try to arrive at an interpretation of what they read or hear in line with their experience of the world. However, cohesion as surface-level ties link separate phrases, clauses, sentences and even paragraphs into unified discourse (Gumpers, 1982). According to Halliday and Hasan (1976), cohesion is a semantic relation within a text which occurs where the interpretation of a presupposing element is dependent on a presupposed one.

It seems that cohesion is not enough to enable the reader to make sense of what he reads. There must be some other factor that makes connected texts meaningful. This factor is coherence (Yule, 1985; Garnham, 1985; Widdowson, 1978). To Brown and Yule (1983), cohesion is not enough to create coherence. Readers do not rely merely on formal markers of cohesion to understand a text and that explicit realization of cohesive ties is not crucial in interpreting a text.

According to Halliday and Hasan (1976), there are five types of cohesive ties. These are reference, substitution, ellipsis, conjunction and lexical cohesion. To Schiffrin (1987), cohesive ties show the existing relationships among elements in a text and help readers in the process of text interpretation by enabling them to read between the lines, to fill in the gaps, to make references to preceding text and to figure out the links in a chain.

Cohesive ties have been found to be problematic for EFL readers (Zamel, 1983). So far, different language problems of EFL readers have been investigated by researchers but little attention has been paid to the impact of lexical cohesion on EFL reading comprehension. As Halliday and Hasan put it, there is a great deal of interest in cohesion in terms of theoretical insights and pedagogical applications that is provides.

Lexical cohesion is the cohesive effect obtained by the selection of vocabulary. It is the predominant means of connecting sentences in discourse. It has five major sub-types which are: **same item**, **synonymy** (and **near-synonymy**), **superordinate**, **general word** and **collocation**. Same item or repetition is the occurrence of two or more items which are the same not necessarily morphological but basically semantic. In the following example:

1. *Algy met a bear. The bear was ugly.*

the second occurrence of **bear** refers back to the first. This is an example of same item. Synonymy is the occurrence of two or more items which have the same meaning. In (2), **sound** coheres with **noise** in terms of synonymy,

2. *He was just wondering which road to take when he was startled by a noise from behind. It was the sound of trotting horses.*

Superordinate is synonym of higher level of generality. Creature is a superordinate term for human, animal etc. In (3), **tree** is a superordinate term for **elm**,

3. *There's a boy climbing the old elm. That tree isn't very safe.*

General word refers to a small set of nouns which have a generalized reference within the major noun classes such as human noun, place noun, fact noun and the like. Consider the following example:

4. *I've just read John Smith's essay. The whole thing is very well thought out.*

students. Based on their scores in this test, the students were divided into two homogenous groups; one of which was considered the control group and the other one the experimental group. The control group was given an ordinary text. Then the number of lexical cohesive sub-types was decreased in this text and it was given to the experimental group. After this, a series of comprehension tests was given to both groups. The statistical analysis of subjects' scores in the two groups indicated that the experimental group whose text was decreased in terms of lexical cohesion did worse than the control group. Based on these results, it is concluded that a decrease in the number of lexical cohesive devices has a negative impact on reading comprehension.

Key Words: cohesion; coherence; cohesive ties; lexical cohesion; text.

Introduction

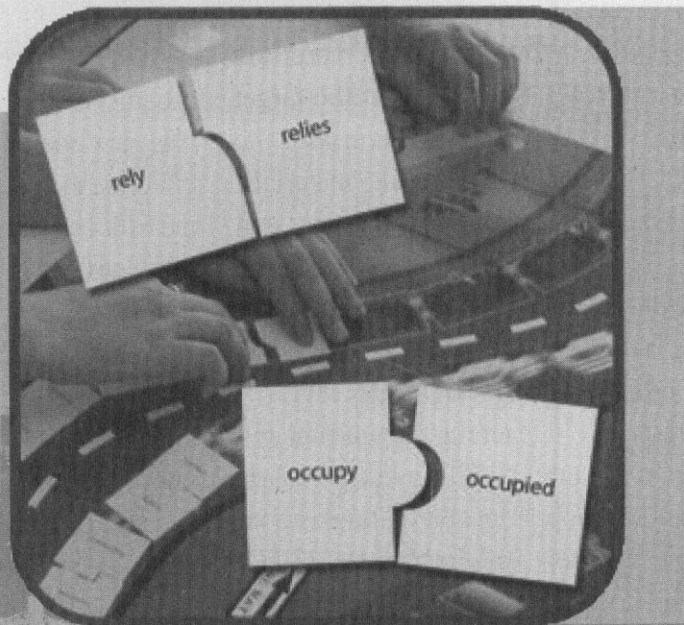
Looking at the recent history of linguistics, one can see that before Chomsky, the structuralists emphasized the importance of studying the sound system of language. They also focused on language as a system and investigated the place that linguistic units such as words and sentences had within the system. Chomsky changed the view about language to a rule-governed system and gave centrality to syntax. According to Chomsky, meaning was too messy to be a base in the structure of a linguistic theory (Chomsky, 1975). In this linguistic theory, Chomsky focused on sentence level grammatical competence to distinguish well-formed and ill-formed sentences. He had a high degree of idealization in his linguistic theory and was basically concerned with sentences out of social context in which they were actually used.

Unlike Chomsky, other linguists such as Leech, Levinson, Austin, and Searl believed that the rules of use should not be separated from the study of language. They proposed that these rules should be studied in linguistic analysis. They also emphasized the importance of social context in the study of language and believed that the rules of use should not be separated from the study of language and stated that linguistic analysis without considering the pragmatic environment is inadequate. To them, what language users usually produce is not sentences in isolation, but discourse

units in context (Leech, 1983; Levinson, 1983; Austin, 1968; Searle, 1969). Consequently the emphasis shifted from structure and grammar to function and communicative competence, from isolated sentences to texts and from formalism to pragmatics and discourse.

According to Richards (Richards et al, 1986), discourse refers to linguistic units larger than sentences such as jokes, poems, paragraphs, interviews and conversations. Trimble (1985) defines discourse as a collection of connected units that make up a coherent, cohesive text. Berber Sardinha (2002) uses a corpus-based method for discourse analysis that is based on the notion of segmentation, or the division of texts into cohesive portions. For the purposes of this investigation, a segment is defined as a contiguous portion of written text consisting of at least two sentences. The segmentation procedure developed for the study is called LSM (Link Set Median), which is based on the identification of lexical repetition in text (Berber Sardinha, 2002). A text, a semantic unit of language in use realized in sentences is the product of its environment and functions in that environment (Halliday, 1978). To Brown and Yule (1983), a text is the verbal record of a communicative event. Halliday and Hasan (1976) regard text as a passage of discourse which is coherent in these two regards: it is coherent with respect to the context of situation and therefore consistent in register; and it is coherent with

Mehdi Nowruzi Khiabani, Ph.D. in TEFL
 Allameh Tabatabai University
 E-mail: me_nowruzi@yahoo.com
 &
 Ali Arabani Dana, M. A in Linguistics
 Distance Education Institution
 E-mail: aliarabandana@yahoo.com



Lexical Cohesion in High School English Textbooks

چکیده

این مقاله در نظر دارد که ابتدا انسجام واژگانی و انواع آن را در کتاب‌های انگلیسی دبیرستان بررسی کند و سپس مشخص سازد که انسجام واژگانی چه تأثیری می‌تواند بر مهارت خواندن داشته باشد. برای تحقق این هدف آزمایشی دو مرحله‌ای انجام شد: در مرحله‌ی اول کتاب‌های انگلیسی دبیرستان از لحاظ انسجام واژگانی و براساس مدل هلبیدی و حسن (۱۹۷۶) مورد تحلیل قرار گرفت. نتایج این تحلیل نشان داد که همگام با افزایش حجم کتاب‌های درسی، نوعی تغییر در انواع انسجام واژگانی مشاهده می‌شود که کاملاً منظم است. در مرحله‌ی دوم تحقیق، آزمون نلسون (A) روی دانش‌آموزان برگزار شد. این دانش‌آموزان براساس نمراتشان به دو گروه همگن تقسیم شدند. یکی از این دو گروه به عنوان گروه گواه و دیگری به عنوان گروه آزمایش در نظر گرفته شد. به گروه گواه آزمونی معمولی داده شد سپس ابزارهای انسجام واژگانی از این متن حذف و متن تغییر یافته به گروه آزمایش داده شد. در ادامه، هر دو گروه در یک سلسله آزمون درک مطلب شرکت کردند. تحلیل آماری نمرات دانش‌آموزان این دو گروه نشان داد، میزان موفقیت دانش‌آموزان در گروه آزمایش که در متنشان ابزارهای انسجام واژگانی حذف شده بود، کمتر از دانش‌آموزان گروه گواه است. بنابراین، نتیجه‌گیری شد که حذف ابزارهای انسجام واژگانی در متون انگلیسی، تأثیری منفی بر مهارت خواندن دانش‌آموزان می‌گذارد.

کلیدواژه‌ها: انسجام، پیوستگی، پیوندهای انسجامی، انسجام واژگانی، متن.

Abstract

The present study was set to serve two purposes: 1) to find the distribution of lexical cohesion and its sub-types in high school English textbooks and 2) to determine if lexical cohesion has any impact on reading comprehension.

To investigate these issues, a two-phase study was designed. In the first phase, high school English texts were analyzed in terms of lexical cohesion according to the model proposed by Halliday and Hasan (1976). The result of this analysis detected some change in lexical cohesive sub-types as the level of high school English textbooks increased. It also showed that this change was systematic.

In the second phase of the study, a Nelson Test Battery (A) was conducted on a group of high school