

AN INVESTIGATION INTO LEXICAL COHESIVE DEVICES IN IELTS READING TEXTS

NGHIÊN CỨU CÁC PHƯƠNG TIỆN LIÊN KẾT TỪ VỰNG TRONG CÁC BÀI ĐỌC HIỂU IELTS

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Abstract – IELTS (International English Language Testing System) tests are designed to measure English proficiency of non-native English speakers in terms of four skills. In recent decades, language researchers have paid great attention to the role of lexical cohesive devices in IELTS Reading texts. However, in Vietnam, little information on this issue has been introduced. This article presents lexical cohesion through an examination of a selection of 26 Reading Passages 1 of IELTS Reading Texts in 5 IELTS Practice test books published by Cambridge University Press. The aim of this article is to investigate and analyze lexical cohesive devices based on frameworks drawn from theories of Halliday & Hasan [7] and Riemer [10], thereby providing grounds for testtakers to find out strategies for answering various question types used in IELTS Reading texts. It is hoped that the findings of this study can be of some help for better doing the tasks of IELTS Reading tests.

Key words - IELTS; reading texts; lexical cohesive devices; question types; cohesion.

Tóm tắt – IELTS được thiết kế để kiểm tra khả năng tiếng Anh của những người phi bản ngữ về cả bốn kỹ năng. Trong những thập niên gần đây, các nhà nghiên cứu ngôn ngữ đã quan tâm nhiều đến các phương tiện liên kết từ vựng trong bài đọc hiểu IELTS. Tuy nhiên, ở Việt Nam, vấn đề này vẫn chưa được đề cập nhiều. Bài viết này trình bày các phương tiện liên kết từ vựng trích dẫn từ 26 bài đọc hiểu phần 1 của các bài luyện tập đọc hiểu bằng tiếng Anh trong 5 cuốn sách của nhà xuất bản Đại học Cambridge (26 IERPs). Mục đích của bài viết này là nghiên cứu và phân tích các phương tiện liên kết từ vựng dựa trên các khung lý thuyết của Halliday & Hasan [7] và Riemer [10], qua đó cung cấp cho người dự thi IELTS các cơ sở để tìm ra các cách thức trả lời các dạng câu hỏi khác nhau trong phần đọc của bài thi đọc hiểu IELTS. Chúng tôi hy vọng kết quả nghiên cứu có thể được ứng dụng để làm bài thi đọc hiểu IELTS tốt hơn.

Từ khóa - IELTS; bài đọc; các phương tiện liên kết từ vựng; các dạng câu hỏi; sự liên kết.

1. Rationale

IELTS academic readings are pieces of writing composed for academic purposes, for the study and distribution of knowledge of a particular subject or a field. In recent decades, there have been a large number of studies on IELTS academic reading texts. IELTS reading tests require test takers to use reading sub-skills such as skimming and scanning; they also need to use these sub-skills to answer all the questions in one hour. Therefore, they should know how to approach each type of reading tasks and answer the questions and transfer their answers to the answer sheet within the time allowed.

In order to study IELTS reading successfully and effectively, test takers have to explore the texts properly. To improve reading comprehension, it is necessary to pay attention to cohesive devices in the reading passages. The purpose of this paper is to discover the lexical cohesive devices employed in IELTS and provide test takers with some essential knowledge about syntactic features and semantic features lexical cohesive devices used for IELTS academic reading texts so that they can make effective applications in doing IELTS reading tests.

2. Theoretical Background

2.1. Definitions of Terms

According to Halliday & Hasan [7, p. 1], “the word *TEXT* is used in linguistics to refer to any passage, spoken or written, of whatever length, that does form a unified whole” and “A text is best regarded as a *SEMANTIC unit*: a unit not of form but of meaning. Thus it is related to a

clause or sentence not by size but by REALIZATION, the coding of one symbolic system in another. A text does not CONSIST OF sentences, it is REALIZED BY, or encoded in sentences.”

Therefore, *Text* is understood as a system in which sentences are constituents, and this system has some structures that identify the position of sentences and their relationship in the whole text.

IELTS Reading Passage is an academic article on a branch of academic science written by specialists and published in a book or a journal.

According to Halliday & Hasan [7], “*cohesion is a semantic relation between an element in a text and some other element that is crucial to the interpretation of it.*”

Thus, *lexical cohesive devices* are linguistic means that contribute to the semantic relation between an element in a text and some other elements crucial to the interpretation of the text.

2.2. Lexical cohesive devices (LCDs) in IELTS Reading Texts

Morris et al. [8, p 2] states that “*lexical cohesion occurs when related word pairs join together to form larger groups of related words that can extend freely over sentence boundaries.*” These assist in providing the continuity of lexical meaning in a text. Lexical cohesion is a type of cohesion whereby certain lexical features of the text connect sentences with each other in the text.

According to Halliday and Hasan [7], lexical cohesion is the type of cohesion that brings cohesive effects

achieved by a selection of vocabulary. It has nothing to do with reference, substitution, and ellipsis. Therefore, it is the most difficult cohesive type to define. Lexical cohesion includes reiteration and collocation. Also, it involves using the features of words as well as group relationships among them to achieve cohesion. Reiteration means repetition of a lexical item, or the occurrence of synonyms of some kinds in the context of reference, i.e. is where the two occurrences have the same reference. Reiteration manifests in three ways: repetition, super-ordinate/hyponymy, synonymy and near synonymy. Moreover, the viewpoint of Riemer [10] in the book *“Introducing Semantics”* published by Cambridge University Press in 2010 about lexical cohesion is reflected in this paper. According to Halliday & Hasan [7], collocation is any two lexical items tending to appear in similar contexts that will generate a cohesive force if they occur in adjacent sentences and patterns occur freely both within the same sentence and across sentence boundaries.

2.3. Research methods

The study made use of the descriptive method as the main method for the analysis of LCDs in IELTS reading texts. The descriptive method was used through the examples of IELTS reading texts which were chosen, described and presented to pick out and sort into different categories of LCDs. To achieve the aim of the article, 210 samples were collected from 26 IELTS Reading Passages 1 in IELTS Practice Test books published by Cambridge University Press from 2010 to 2015 to find out common LCDs, which were then analyzed and investigated based on Halliday and Hasan's theory of cohesion as well as and Riemer's.

3. Findings and discussion

3.1. Frequency of LCDs Used in IELTS Reading Texts

It can be realized from the analysis of the data collected from the IELTS Reading Passages 1 that there are two types of LCDs - reiteration and collocation, which consists of 5 subtypes namely repetition, synonymy, hyponymy, antonymy, and collocation; they belong to two types: reiteration and collocation. These LCDs are employed for creating the cohesion and coherence in IELTS reading texts. Below is the table showing the occurrence of common types of lexical cohesive devices used in the collected IELTS reading texts.

Table 1. Frequency of Lexical Cohesive Devices in Reading Texts

No.	Type	IELTS Reading Texts	
		Occurrence	%
1	Repetition	18	8.6
2	Synonymy	40	19
3	Hyponymy	14	6.6
4	Antonymy	12	5.7
5	Collocation	36	17

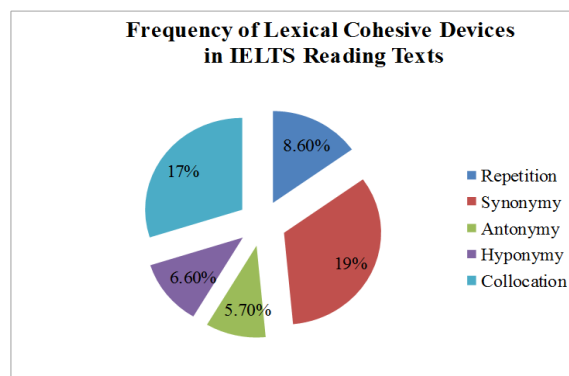


Figure 1. Frequency of Lexical Cohesive Devices in IELTS Reading Texts

The pie chart reveals the information of how often the lexical cohesive devices appear in IELTS reading texts. Of the total 210 samples, synonymy account for the most part with 19%. Following it is collocation which occupies 17%. The repetition accounts for 8.6%. Hyponymy and antonymy occupy the smaller parts, around 6.6 % and 5.7%, respectively. As can be seen from the pie chart, the lexical cohesive devices in the whole reading texts vary according to the types of cohesive devices.

3.2. Syntactic Realizations of Lexical Cohesive Devices

3.2.1. Verbs

According to Quirk et al. [9], verbs serve as a predicative in the sentence. Let us consider the following example in IELTS reading texts.

*“The visual system **detects** patterns of light and dark and, building on experience, the brain creates a spatial map. It **uses** this to interpret the interrelationship of the patterns and draw conclusions that allow us to identify people and places. In the same way, we **use** patterns and ratios to **detect** both new and familiar flavors. As we eat, specialized receptors in the back of the nose **detect** the air molecules in our meals. From signals sent by the receptors, the brain understands smells as complex spatial patterns. Using these, as well as input from the other sense, it constructs the idea of specific flavors.”* [4, p. 177]

As can be seen from the texts that the repetition is one of the cohesive devices the writer uses to connect ideas among sentences. Those are the repetitions of words *detect* and *use*. *Detect* and *use* serve as predicative in each sentence they belong to.

3.2.2. Nouns

According to Quirk et al. [9], nouns are words that modify verbs. They mostly play the role of the subject or an object.

• Noun as Subject

Quirk et al. [9] state that syntactic function of nouns is the subject in a sentence. Following is an example in IELTS reading texts.

*“Language belongs to everyone, so most people feel they have a right to hold an **opinion** about it. And when **opinions** differ, emotions can run high. Arguments can start as easily over minor points of usage as over major policies of linguistic education.”* [2, p. 63]

It is obvious that the word “*opinion*” is a noun and repeated twice. Therefore this is a case of repetition, a lexical cohesive device. *Opinion* serves as the subject in the clause “*And when opinions differ.*”

- *Noun as Object*

According to Quirk et al. [9], nouns serve as objects in sentences. Let us consider the following example in IELTS reading texts.

“*Hearing impairment or other auditory function deficit in young children can have a major **impact** on their development of speech and communication, resulting in a detrimental **effect** on their ability to learn at school. This is likely to have major consequences for the individual and the population as a whole.*” [2, p. 41]

The above example includes the synonymy of the words “*effect*” and “*impact*”. They are nouns and function as objects.

3.2.3. Adjectives

Quirk et al. [9] state that adjectives function as premodifiers in noun phrases. Below is an example.

“*Ants are not intelligent by themselves. Yet in a colony, they make **wise** decisions.*” [4, p. 195]

In the text above, readers can recognize synonymy through the words *wise* and *intelligent*. *Wise* functions as premodifier for *decisions*. These words help to show the concession of the nature of ants in a colony, which means that ants make wide decisions although they themselves are not intelligent, which creates cohesion in the text.

Following is a table of syntactic realizations of lexical cohesive devices in IELTS Reading Texts.

Table 2. Syntactic Realizations of Lexical Cohesive Devices in IELTS Reading Texts

Parts of Speech of LCDs	Syntactic Functions
Verbs	Predicative
Nouns	Subject
	Object
Adjectives	Premodifier

Table 2 indicates how lexical cohesive devices function syntactically in IELTS reading texts. They are parts of speech namely verbs, nouns, adjectives, which serve as predicative, subject or object and premodifiers in the texts, respectively.

3.3. Types of Lexical Cohesive Devices Used in IELTS Reading Texts

According to Halliday and Hasan [6], lexical cohesive devices consist of two major types: reiteration and collocation. A reiterated item may be a repetition, a synonym or a near-synonym, hyponymy. Cohesion in collocation is about the linking of lexical items that often co-occur in a span of text. This article focuses on these types of lexical cohesive devices in IELTS reading texts. The subtypes of lexical cohesive devices are as follows.

3.3.1. Repetition

As stated by Halliday and Hasan [6], repetition is also one of the devices having its origin in the emotive

language. Repetition when applied to the logical language becomes simply an instrument of grammar. Its origin is to be seen in the excitement accompanying the expression of a feeling being brought to the highest tension. Let us consider the following example in IELTS reading texts.

“*But then there was a burst in population growth. Macfarlane says, “The infant mortality rate halved in the space of 20 years, and this happened in both rural areas and cities, and across all classes. People suggested four possible causes. Was there a revolution in medical science? But this was a century before Lister’s revolution.”* [3, p. 65]

The repetition of the word “*revolution*” attracts the readers to the information in the text and creates a question if *there was a revolution in medical science*, and some doubt when referring to the time *before Lister’s revolution*. The repetition in the text highlights their importance and also helps in providing the semantic outlook of the text. It grammatically collocates and enhances the semantic texture of the text by conveying information in united pairs. This lexical mechanism grammatically helps in weaving the cohesive texture of the text. Lexical items like these are repeatedly used, which highlights their semantic significance and integrates them into the whole semantic structure of the text.

3.3.2. Synonymy

According to Riemer [10], two (or more) expressions are absolute synonyms if, and only if, all their meanings are identical; they are synonymous in all contexts. In IELTS reading texts, the following example illustrates a subtype of lexical cohesive devices.

“*Sanitation did not become widespread until the 19th century. The only left is food. But the height and weight statics show a **decline**. So the food must have got worse. Efforts to explain this sudden **reduction** in child deaths appeared to draw a blank.*” [5, p. 45]

Above is the sample which shows how semantic features of synonymy are reflected in IELTS reading texts. The writer uses two words “*decline*” and “*reduction*” to indicate the degree of *height and weight statics* and *child death*. These words help to link ideas cohesively in the sentence,

3.3.3. Antonymy

As stated by Riemer [10], antonymy may be characterized as a relationship of incompatibility between two terms with respect to some given dimension of contrast. Some words seem to have more than one antonym, depending on the dimension of contrast involved (*girl* has both *boy* and *woman*, depending on whether the dimension of contrast is sex or age; *sweet* has both *bitter* and *sour*). Below is the example showing the semantic features of this cohesive device in IELTS Reading texts.

“*It is probable that many undiagnosed children exist in the education system with “invisible” disabilities. Their needs are less likely to be met than those of children with **known** disabilities.*” [2, p. 41]

As can be seen clearly from the sample above, *invisible-known* show the contradicting meaning. *Invisible*

and *known* show the incompatibility of two two objects. Therefore, it helps to form some comparison between children with “*invisible*” disabilities and those with *known* disabilities.

3.3.4. Hyponymy

Riermer [10] says that hyponymy is the lexical relation described in English by the phrase *kind/ type/ sort of*. A chain of hyponyms defines a hierarchy of elements: *sports car is a hyponym of car* since *sports car is a kind of car*, and *car*, in turn *is a hyponym of vehicle* since *car is a kind of vehicle*. Following is example showing the semantic features of this cohesive device in IELTS Reading texts.

*“Assuming natural selection evolves the best possible solution too, the modeled animal should be moving in a manner similar to its now - extinct counterpart. And indeed, using the same method for **living animals (humans, emus and ostriches)** similar top speeds were achieved on the computer as in reality.”* [5, p. 24]

The writer made use of hyponymy to describe living animals. In the above text, *humans, emus and ostriches* are types of *living animals*. They give more specific samples to help the readers know the model object for the method - *natural selection* can apply in. It is obvious that the hyponymy helps to link the ideas so that the readers can understand them deeply.

3.3.5. Collocation

As stated by Halliday and Hasan [7], any two lexical items having similar patterns of collocation - that is, tending to appear in similar contexts- will generate a cohesive force if they occur in adjacent sentences. This effect is not limited to a pair of words. It is very common for long cohesive chains to be built up out of lexical relations of this kind, with word patterns like “*candle ... flame ... flicker*”, “*hair ... comb ... curl ... wave*” weaving in and out of successive sentences. Such patterns occur freely both within the same sentence and across sentence boundaries; they are largely independent of grammatical structures. Below is an example showing the semantic features of collocations in IELTS Reading texts.

*“**Thunder, the shock wave** that comes from a **lightning flash**, is thought to be the trigger for the **torrential rain** that is typical of **storms**.”* [11, p. 65]

From the above example, it can be seen that collocations function as the cohesive devices in the passage. The cohesion created via collocations enables us to imagine the storm. The phrases such as *thunder shock wave, lightning flash*, and *torrential rain* are collocations.

In short, lexical cohesive devices in the selected texts provides semantic harmony to these texts. The repetition of certain vocabulary items forms their complete semantic circles and helps with texturing the unified semantic structure. The repetition of the same lexical items also highlights their significant place in the overall lexical stock of the texts and renovates their meaningful part in portraying the thematic outlook of the texts. The accumulated information structured in the texts in the form of superordinate gives an extensive explanation to one semantic unit with a variety of terms, systematically

classifies the semantically connected terms, and organizes them into separate semantic entities at the same time which then as a whole get cohesively linked into a whole semantically united structure.

With regard to lexical cohesive devices, syntactically, they are parts of speech. Particularly, they are verbs, nouns and adjectives. The syntactic functions of lexical cohesive devices are predicative, subject or object, premodifier, respectively. Semantically, the diversification in the use of lexical cohesive devices provides semantic harmony to IELTS reading texts. The reiteration and collocation of words help to form their complete semantic circles, highlight their significant place in the texts and renovate their meaningful part in illustrating the look of the texts. There are approaches to identifying the right answer to the questions. The IELTS Reading texts employ many subtypes of lexical cohesive devices; however, they make sentences cohesive and coherent.

3.4. Suggestions to teaching and studying IELTS reading

This article is an attempt to examine the lexical cohesive devices in terms of frequency, syntactic features and types. Therefore, the findings have some important implications for learning and teaching the reading skill, and particularly for those who intend to take the IELTS test.

As Fabiana [4] stated, “*Since the language proficiency is the decisive factor affecting students’ achievements, we can try to apply the lexical cohesion theory to the training of the students’ reading ability. The more repeated information points in two sentences of the same text, the closer their relations are.*”

In order to achieve effectiveness in taking IELTS reading texts, test takers should pay attention to reading requirements on specific assessment tasks, perceived similarities and differences in reading requirements. They are also asked to speculate on how useful they think the sample IELTS tasks are likely to be preparation for the reading demands.

Lexical cohesive devices are used for the vast majority of items in the IELTS reading texts with many tasks which mainly require basic comprehension of relatively small textual units (sentences inter- sentences, paragraphs). Such tasks within the academic fields should be set as weekly exercises or on exams and tests, and have their focus of the need for students to understand certain discipline-based concepts.

In teaching reading, teachers should guide students to find out key words. Usually students must skim or scan the text first to find the right section and then, having found the relevant section, they are to read for details. When students read for detail, they read every word in a text and think carefully about the meaning of every sentence. It is often necessary in IELTS Academic Reading to read a certain section of a text in detail in order to answer a question correctly. For test takers reading quickly is preferred because they need to find answers to the question as quickly as possible, they do not need to understand and remember the reading texts deeply. Therefore, the lexical cohesive devices provide an effective solving method. Based on lexical cohesive devices, readers can select the

sentences to process the key words. The following step is to find the relevant sentences in text. At least two linked sentences must have some shared information. Therefore, when teaching reading, teachers must guide students to find relevant sentences in texts and determine the correct answer. It is when teachers analyze the application of lexical cohesive devices in IELTS reading texts.

Teachers should base on lexical cohesive devices to find referring expressions and explain reference. Then, they can give explanation to the words in the contexts in the form of repetition, synonyms, antonyms, hyponyms, and collocations which appear in the IELTS reading texts.

4. Conclusion

In this article, an attempt has been made to find out how often the lexical cohesive devices are used in IELTS reading texts, the syntactic features as well as types of the cohesive devices, thereby highlighting the important role of the realization of lexical cohesive devices in answering questions in Reading Passages 1 of IELTS tests.

In terms of parts of speech, the lexical cohesive devices come in the forms of verbs, nouns and adjectives. Their syntactic functions include predicative, subject or object, premodifier, respectively. Typically, the diversification in the use of lexical cohesive devices provides harmony to IELTS reading texts. The repetition of the same lexical items also highlights their significance in the overall lexical stock of the texts and renovates their meaningful part in portraying the thematic outlook of the texts.

In addition, this article has presented some strategies in studying and teaching IELTS Reading. For test takers, reading quickly is preferred because they need to find answers to the question as quick as possible, thus they do not need to understand and remember the reading texts deeply. Therefore,

the lexical cohesive devices provide an effective problem-solving method. Based on the lexical cohesive devices, readers can select the sentences to process the key words. The next step is to find the relevant sentences in texts. Consequently, when teaching IELTS Reading, teachers must guide students to find relevant sentences in texts and determine correct answers. To do this successfully, teachers should instruct students to pay attention to lexical cohesive devices employed in IELTS reading texts.

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