Identifying Discourse Patterns: A Case Study with Turkish Foreign Language Learners

Kadriye Dilek Akpınar[1]

Gazi University, Turkey

Abstract

This paper mainly focuses on identifying discourse patterns in an argumentative text by Turkish foreign language learners majoring in English Language Teaching. They were given a cohesion test in which they identified grammatical and lexical cohesive devices after an instruction of Discourse Analysis using Halliday and Hasan's (1976) classification system. The common features and errors of the participants while identifying cohesive devices were analyzed by the frequency percentages using SPSS 20.0. Besides the descriptive analysis methods (frequency, mean and standard deviation), for the comparison of quantitative data; T-tests and One-Way ANOVA were used. Results indicated that there were significant differences between the identification of some sub-categories of grammatical cohesion (ellipsis-substitution and conjunction) and lexical cohesion (superordinate-hyponym and repetition).

Keywords: *cohesive devices, discourse analysis, ellipsis, , grammatical cohesion, lexical cohesion*

[1] Assist. Prof. Dr. Gazi University. Faculty of Education, Department of Foreign Language Education.
Email: kadriyedilek@gazi.edu.tr

Introduction

Discourse analysis (hereafter DA) is the study of the language and its relationship with the contexts in which it is used (Halliday, 1973). Among the various disciplines, such as sociology, psychology, linguistics, semiotics and anthropology; discourse analysis has built a significant foundation for itself in Descriptive and Applied linguistics (McCarthy, 1991). Since the past fifteen years, DA has become a popular topic in terms of its theoretical status and function in language educational context. Most of the studies dealt with the investigation of Discourse Markers (hereafter DMs) from various aspects: writings of learners (Field & Yip, 1992; Intraprawat & Steffensen, 1995; Johns, 1984; Johnson, 1992; Norment, 1994; Steffensen & Cheng, 1996), reading comprehension (Al-Jarf, 2001; Jalilifar & Alipour, 2007), oral production (Hays,1992), informal settings (Muller, 2004; Trillo, 2002), lectures (Dailey-O'Cain, 2000; Perez & Macia, 2002) and academic genres (Abdi, 2002; Bunton, 1999; Mauranen, 1993).

This wide-ranging interest in DA reflects an awareness of "becoming a competent member of a discourse community involves more than internalizing its grammar and linguistic forms" (Kang, 2005, p. 260). That is the realization of real language, used by real people in real contexts both in written and spoken modes, rather than artificially created sentences and texts.

Among the various components of language skills and aforementioned dimensions of language education the present study aims to handle DA in terms of reading skills. The significance of reading not only in second or foreign language (FL) education but also for academic purposes or in an academic context has been widely emphasized by scholars such as Day & Bamford, (1998, 2002); Eskey, (2005); Grabe, (2004); Khabiri& Hajimaghsoodi, (2012). Besides its importance on language development, the reading process is cognitively demanding because learners need to harmonize attention, perception, memory, and comprehension at the same time (Sellers, 2000). The complexity of these cognitive processes makes reading challenging and causes difficulty in developing a high level of reading proficiency especially for FL learners (Grabe, 2002). Therefore, the full comprehension of the text or understanding author's intention could be hindered.

Consequently, making learners aware of efficient and alternative ways of analysing a written text appears to be necessary for processing it successfully, instead of using traditional methods of a reading class such as the mere analysis of single words or sentences, interpreting complex sentences, or discussing the general ideas expressed in the reading (Hymes, 1979; Smith, 1978, Ivanov, 2009). According to Wenquan (2009), the lack of training in DA and ignorance of even the simplest DA techniques may cause difficulty in understanding the rhetorical and functional meaning of sentences for most of the EFL learners. Thus, providing the learners with adequate strategies of DA with its various aspects is necessary in language teaching in general, and in teaching reading in particular (McCarthy, 1991; McCarthy, Matthiessen, & Slade, 2002; Nunan, 2001; Wenquan, 2009).

Up to date there are some studies evaluating Turkish EFL learners' use of DMs in their writings such as Dikilitaş (2012). However, there is a lack of research about how Turkish FL learners process cohesive ties in a reading text. Regarding the important role of DA in reading, this study concerns to evaluate Turkish FL learners' ability in identifying DMs while reading an argumentative text.

Theoretical Background

This section relates the grammatical and lexical concepts of DA with the aim of illuminating the understanding of the relationship between local choices within the clause and sentence and the organization of the discourse as a whole.

Cohesion

'The Concise Oxford Dictionary of Linguistics' by Mathews (1997) describes cohesion as a syntactic unit (sentence). According to 'A Dictionary of Linguistics and Phonetics' by David Crystal (2006), cohesion is a grammatical unit (words). Bex (1996:91) explains cohesion as "residing in the semantic and grammatical properties of the language". For Halliday and Hassan (1976), cohesion is a semantic concept that creates interdependency in text. They state that "the primary determinant of whether a set of sentences do or do not constitute a text depends on the cohesive relationships within and between the sentences, which create texture" (Halliday and Hassan 1976:2). According to them, cohesive relationships within a text are determined by the interpretation of some elements in the discourse that is dependent on the other. One presupposes the other and without its recourse, the other can not be properly decoded (Brown G. and Yule G. 1989).

The taxonomy of Halliday and Hasssan (1976) identifies the types of cohesive relationship which can be formally situated within a text. The main cohesive devices which make a text coherent are of two main categories. Grammatical and lexical devices.

Grammatical Devices:

The grammatical cohesive ties identified by Halliday (1978) and Osisanwo (2005) are reference, substitution, ellipsis and conjunction.

Reference: Referencing functions to restate the presupposed information in a text. In written text, "referencing indicates the way the writer introduces participants and keeps track of them throughout the text" (Eggins 1994: 95). There are three general types of referencing:

Homophoric referencing: reference made through sharing of cultural context;

Exophoric referencing: reference where referred information is retrieved from the immediate context of situation;

Endophoric referencing: a type of reference when information is "retrieved" within the text. Endophoric reference is the focus of cohesion theory and can be divided into three major types: Anaphoric, Cataphoric, and Esphoric. (Halliday & Hasan, 1976)

Anaphoric reference: reference that 'points backwards' to the entity, process or state of affairs that has been previously mentioned.

Cataphoric reference: reference that 'points forward' to information which is mentioned in the text before it is introduced.

Esphoric reference: reference within the same nominal group or phrase which follows the presupposed item. (Halliday & Hasan, 1976)

In terms of functionality there are three main types of cohesive references: personal, demonstrative, and comparative. Personal reference monitors function through the speech situation using noun pronouns like "he, him, she, her" etc. and possessive determiners like "mine, yours, his, hers" (Halliday & Hasan, 1976). Demonstrative reference "keeps track of information through location using references like 'this, these, that, those, here, there, then, and the'" (Halliday & Hasan, 1976, p.51). Halliday refers demonstrative referencing as

"verbal pointing" to indicate a scale of proximity to the presupposed references. Comparative reference "keeps track of identity and similarity through indirect references 'same, equal, similar, different, else, better, more', etc. and adverbs like 'so, such, similarly, otherwise, so, more', etc". (Halliday &Hasan, 1976, p.51).

<u>Substitution and Ellipses:</u> Substitution and ellipsis in a text is used when "a speaker or writer wishes to avoid the repetition of a lexical item and is able to draw on one of the grammatical resources of the language to replace the item" (Bloor & Bloor, 1995:96).

Although they are functionally the same as the cohesive linguistic bind; ellipsis is different than substitution in that it is "substitution by zero" (Halliday & Hasan, 1976).

Different from reference, substitution involves a linguistic relation between linguistic items such as words or phrases that is grammaticalised lexis.

There are three types of substitution: nominal, verbal and clausal.

<u>Examples:</u>

There are some new <u>tennis balls </u>in the bag. These <u>ones</u> have lost their bounce. (Nominal substitution)

A: Annie says you <u>drink too much</u>.

B: So <u>do</u> you! . (Verbal Substitution)

A: Is it *going to rain*?

B: I think <u>*so*</u>. (Clausal Substitution)

Examples of substitution are taken from Nunan (1993).

In ellipsis some essential elements are omitted from a sentence or clause and can only be recovered by referring to an element in the preceding text (Nunan, 1993). Just in the case of substitution, there is nominal, verbal and clausal ellipsis.

Examples of each type follow. (The point at which element has been omitted from the second sentence of each text is marked by (0).)

My kids play an awful lot of sport. Both (0) are incredibly energetic. (Nominal ellipsis)

A: Have you been working?

B: Yes, I have (0). (Verbal ellipsis)

A: Why'd you only set three plates? Paul's staying for dinner, isn't he?

B: Is he? He didn't tell me (0). (Clausal ellipsis)

Examples of ellipsis are taken from Nunan (1993).

Conjunction

The main cohesive category 'conjunction' provides connections between sentences, clauses and paragraphs by the use of formal markers. Different from reference, substitution and ellipsis conjunction is not used as a "reminder of the previously mentioned entities, actions and states of affairs" (Nunan, 1993:6). Bloor and Bloor (1995: 98) identify the role of conjunction as a "cohesive tie between clauses or sections of text in such a way as to demonstrate a meaningful pattern between them". On the other hand, according to Halliday and Hasan (1976: 227) "conjunctive relations are not tied to any particular sequence in the expression".

For Halliday and Hasan (1976) the main types of conjunction are additive, adversative, causal and temporal. Later, Osisanwo (2005) identifies types of conjunctions as coordinating, subordinating, compound adverbs and continuatives. However, for the purpose of this research, we shall make use of the conjunctive categories identified by Halliday (1976).

Additive conjunctions coordinate structurally by adding to the presupposed item and are indicated through "and, also, too, furthermore, additionally", etc. Besides, additive conjunction may also have the function of negating the presupposed item and is indicated through "nor, and...not, either, neither", etc. Halliday (1976)

Adversative conjunctions function to specify "contrary to expectation" (Halliday, 1976:51; McCarthy and Carter, 1994; and Wenquan, 2009) and are indicated through "yet, though, only, but, in fact, rather", etc.

Causal conjunctions act to specify "result, reason and purpose" and are indicated through "so, then, for, because, for this reason, as a result, in this respect, etc.".

Temporal Conjunctions connect sentences by indicating sequence or time. Some of the temporal conjunctive indicators are "then, next, after that, next day, until then, at the same time, at this point", etc.

Lexical Cohesion

Halliday and Hassan (1976) state that lexical cohesion includes "non-grammatical elements" and the cohesive effect is accomplished through the "selection of vocabulary". "The way lexical items are woven together through a text" is called lexical cohesion (Carter and Ronald, et al. 2001: 187). Lexical cohesion includes two basic categories: reiteration and collocation.

Reiteration: Reiteration covers the repetition of a lexical item, either directly or through the use of a synonym, or related word. That is, stating or doing something for a few times.

As a lexical device a reiterated item manifests in three ways: Superordinate/ Hyponym, Synonym or Near Synonym and, Antonym.

Repetition: Repetition is accomplished in the cases that the same lexical item is used across the sentences:

Superordinate/Hyponym: A superordinate is defined by (Halliday and Hasan 1976: 280) as "any item that dominates the earlier one in the lexical taxonomy"

Synonym: Synonyms are used to avoid repetition of same word in a text by giving the same or similar meaning as another word.

Antonym: Antonyms are lexemes which are opposite in meaning. An antonym is the answer to a question "what is the opposite of the word x?".

Collocations:

According to Halliday and Hasan (1976: 286) "collocation involves pairs or chains of lexical items that are drawn from the same order series. This is accomplished through the association of regularly co-occurring lexical items."

In discourse analysis collocation may cause some problems since in some cases it is not easy to decide whether a semantic relationship exists between the words or not to form a cohesive connection (McCarthy and Carter, 1994, and Wenquan, 2009).

With the light of above explanations and definitions, the present study aims to handle FL learners' success and failure in identifying lexical and grammatical cohesive devices in an argumentative text. More specifically this study tries to find out answers for the following questions:

Based on the cohesion test scores of Turkish EFL learners majoring in ELT,

1. What is the percentage of the grammatical and lexical cohesive devices they could identify and resolve while reading an argumentative text?

2. Are there any significant differences between the identification of grammatical and lexical cohesive devices?

a) Are there any significant differences in the identification of the sub categories of grammatical cohesion? (reference, ellipsis, substitution, conjunction)

b) Are there any significant differences in the identification of the sub categories of lexical cohesion? (repetition, synonym/near synonym, superordinate/hyponym, antonym, collocation).

Methodology

Participants

Subjects of the present study consisted of 50 EFL (39 female and 11 male) students who are native speakers of Turkish. All the subjects were majoring in English Language Teaching (ELT) at the Foreign Languages Education Department, Gazi University, Ankara, Turkey. Their ages ranged between 21-23 years. The study was conducted at 2012-2013 academic year which was the eighth (the last) semester of the participants. The four-year English Language Teaching program includes the linguistics and translation courses, basic skills courses such as listening, speaking, reading, writing, grammar and vocabulary building in EFL, and language teaching methodology courses.

The participants were all enrolled in a "Discourse Analysis and Language Education" course which the instructor is the researcher. The study was conducted within the frame of the course syllabus.

Design and Procedure

The instruction period lasted for 14 weeks with classes meeting once a week. They received 28 sessions of instruction each lasting for 50 minutes. The subjects received instruction on discourse analysis based on the theories and conceptual frame of Halliday and Hasan (1976), Carrell (1984a, 1984b, 1985), Cook (1989), Asher and Simpson (1994),

McCarthy and Carter (1994), and Wenquan (2009). An instruction guide was designed by the teacher-researcher which was used for teaching different steps of analyzing discourse.

The instruction guide focuses on three steps of text analysis: Macro level, Micro level, and Overall comprehension of discourse (Khabiri 2012). Macro level included the brainstorming, skimming and comprehension questions. Micro level focused on grammatical and lexical cohesion. Grammatical cohesion consisted of reference, ellipsis/substitution, and conjunction. Lexical cohesion included reiteration and collocation. In overall comprehension the textuality of the paragraphs were analyzed in terms of cohesion and coherence. Since the focus of this study is the text analysis in terms of cohesive devices, the subjects received direct instruction in the two cohesion types with their sub-categories depending on Halliday and Hasan's (1976) categorization.

Firstly, both grammatical cohesion and lexical cohesion with their components and subcategories were explained with example sentences. Secondly, various texts of different genres were studied to practice and identify the cohesive devices. Finally, the students practiced to identify, classify and connect the cohesive devices with their referents (antecedents) or substitutes and functions in the texts. In case of difficulty in identifying DMs during the practicing process the instructor aided them.

Instrumentation

Though the learners analyzed different genres of texts such as narrative, descriptive, argumentative and expository during the instruction and practice sessions, an argumentative text of news article was chosen to be used as the cohesion test in the study. The rationale behind choosing an argumentative text lies in the feature of written argumentation that helps students acquire knowledge (Driver, Newton, & Osborne, 2000; Schwarz, Neuman, Gil, &Iiya, 2003; Zohar & Nemet, 2002), develops deductive and critical thinking skills (C. Shanahan, 2004), and promotes understanding of social studies such as history or politics (De La Paz, 2005; Wiley & Voss, 1999).

Furthermore, a well-developed argumentative writing is structured in a way that it "includes a statement of an opinion with support, a statement of a counterargument, a rebuttal, and a concluding statement that supports the initial opinion". (Felton &Herko, 2004:15). Thus, to serve the aim of the present study the 554 word-long argumentative text of a news article which was taken from McCharty (1991: 159) entitled "Two –Wheel Solution" (See Appendix) was chosen as the cohesion test.

In order to test the text relevancy to the participants a pilot study was conducted: The same text was given to a group of students studying in the ELT department who were assumed to be similar to the participants in the main study with respect to language proficiency and level of reading comprehension. Next, three independent inter-raters who are experts in Discourse and Language, including one native English speaker and two non-native English speakers, evaluated the suitability of the experimental text.

To ensure the validity of the text, while identifying the discourse markers, the same inter-raters also evaluated the text and then the inter-rater reliability of the scores was estimated through Chronbach's Alpha formula for inter-rater reliability; the obtained reliability index was 0.85, which is an acceptable reliability index. The identified types and occurrence number of the DMs included in the text are as follows:

I. Grammatical Cohesion

A. References:

This category of cohesion includes a total of 53 occurrences of the personal (22), demonstrative (22) and comparative (9) types. Sample sentences from the text are:

1) Personal Reference: *Our* climate is too cold and wet (line. 36)

2) Demonstrative Reference: *That* is just a matter of fashion 41 which most of the business community follow as slavishly as sheep. (line 40)

3) Comparative Reference: One, provide *more* resources, in this case build *more* roads and car parks (lines 14-15)

B. Ellipsis

This category of cohesion includes a total of 9 occurrences of the nominal (2), verbal (2) and clausal (5) ellipsis types. Sample sentences from the text are:

1) Nominal Ellipsis**:** It is dangerous: It *can b***e** (0) but three-fifths of all serious motor cycling accidents are caused by cars. (line 28)

2) Verbal Ellipsis: Week by week the amount of car traffic on our roads grows, *13 percent* (0) in the last year alone. (line 7)

3) Clausal Ellipsis**:** There is room on our existing roads for present and future needs *but not* (0) if they are to be clogged up with half-empty cars when the motor cycle would serve the same purpose more than adequately. (line 24)

C. Substitution

This category of cohesion includes a total of 6 occurrences of the nominal (4) and clausal (2) ellipsis types. Sample sentences from the text are:

1. Nominal Substitution

There are four possible solutions: *One*, provide more resources, 15 in this case build more roads and car parks; *two*, restrict the availability of motorised transport by artificially…(lines 15-16)

2. Clausal Substitution:

There is room on our existing roads for present and future needs but not if they are to be clogged up with half-empty cars when the motor cycle would serve the *same* purpose more than adequately. (line 25)

D. Conjunction

This category of cohesion includes a total of 31 occurrences of the additive (13), causal (7), adversative (5) and temporal (5) conjunction types. Sample sentences from the text are:

1. Additive Conjunction:

The ideal vehicle for transporting one person to *and* from his *or* her place of work has been in use for as long as the motor car. (line 21)

2. Causal Conjunction

Inevitably, objections will be raised to the promotion of the motor 27 cycle as the savior of our environment. (line 26)

3.   Adversative Conjunction

But I must drive a BMW or Jaguar *or* I'll have no credibility with 40 my clients, my boss, my shareholders

II. Lexical Cohesion

A. Reiteration

This category of cohesion includes a total of 40 occurrences of the repetition (19), superordinate/hyponym (7), near synonym (10) and antonym (4) conjunction types. Samples of this type from the text are:

1. Repetition

road (lines 6,15, 23, 35)*, acres* (lines 1, 49)*, accident* (lines 29, 33), *reduce* (lines 19, 31)*, car* (lines 6, 9, 15,22,24, 29, 32)*, motor cycle* (lines 24, 30, 34)*.etc.*

2. Superordinate/hyponym

transport (superordinate) (lines 16, 18, 21): *vehicle* (lines 17, 19, 21*), car* (lines 6, 9, 15,22,24, 29, 32) *, motorcycle* (hyponym) (lines 24, 30, 34), etc.

car (superordinate): *BMW, Jaguar* (hyponym) (lines 39, 40).etc.

3. Near synonym

problem (line 45)-*crisis* (line 11)-*dilemma* (line 12); *restrict* (line 15)-*prohibit* (line 18); *need* (lines 23, 18, 47)-*demand* (line 12*)* etc.

4. Antonym

dilemma (line 12)- *solution* (line 14); *adequate* (line 25)- *inadequate* (line 4); *extend* (line 5)-*reduce (line 19)*. etc.

B. Collocation

This category of cohesion includes a total of 25 occurrences of the collocation. Sample phrases from the text are:

make contribution to (line 35); *raise the price* (line 16); *motorway network* (line 4); *take a risk* (line 48). etc.

Data Collection and Analysis

At the end of the instruction and practice sessions the students were given the text and asked to read and identify the DMs in the text. They were not only asked to identify DMs but to write the referent (antecedent) or substitute of each anaphor with their types. The written answers of grammatical discourse ties were scored by the researcher as :

reference: 1 point

reference+referenced item:2 points

 reference+referenced item+reference type: 3 points

ellipsis/substitution: 1 point

ellipsis/substitution +ellipsed/substituted information: 2 points

ellipsis/substitution + type of ellipsis/substitution: 2 points

ellipsis/substitution+ellipsed/substituted information+ type of ellipsis/substitution:3 points

Conjunction:1 point

Conjunction+ type of conjunction:2 points

Each lexical device was scored as 1 point.

In order to ensure the reliability of scoring, 20% of students' responses were scored by the researcher and two experienced university professors and then the rest of the cohesion tests were scored by the researcher herself. Correct responses in each cohesion category were subtotaled. SPSS 20.0 was used for data analysis to see the mean number of the scores of the participants from the cohesion test. Besides the descriptive analysis methods (frequency, mean and standard deviation), for the comparison of quantitative data; normally distributed parameters were compared using T-tests and One-Way ANOVA.

Results

RQ .1. What is the percentage of the grammatical and lexical cohesive devices Turkish EFL learners majoring in ELT could identify and resolve while reading an English text?

Distribution of Cohesion Scores

The first step taken to analyze the data set was to compute the descriptive statistics of the variables including the mean number, the lowest and highest scores the participants get from categories of grammatical and lexical devices. To be able to make a comparison among these categories, participants' pre-coded raw scores were converted to (0-100) point scores.

Table 1.

Descriptive Statistics: The mean scores of the Cohesion test (Converted to 0-100 points score)

Categories of cohesion	N	The lowest scores	The highest scores	Mean	Std. Deviation	Max scores that can be received
Reference	50	32.08	62.26	50.50	7.54584	159
Ellipsis	50	.00	77.78	33.33	19.93804	27
Substitution	50	.00	83.33	18.78	26.81765	18
Conjunction	50	48.39	96.77	83.83	8.66120	62
Repetition	50	36.84	100.00	65.47	13.07320	19
Superordinate/ hyponym	50	14.29	71.43	47.71	16.48141	7
Near synonym	50	20.00	90.00	54.20	19.17588	10
Antonym	50	.00	100.00	60.50	23.73858	4
Collocation	50	20.00	96.00	61.84	19.12724	25

Table 1 shows that Turkish EFL learners identified various types of cohesive devices in the cohesion test and that the scores they received for certain types of cohesive devices are more than others.

On the basis of the percentage of categories of cohesive ties, the participants got the least scores from "substitution, ellipsis and hyponym/superordinate". Particularly, substitution and ellipsis had a relatively low percentage (%18.78 and %33.33). The participants received the highest scores for the conjunction (% 83.83), followed by the lexical cohesive device of repetition (65.47).

RQ2. Is there any significant difference between the identification of grammatical and lexical cohesion?

The cohesion test includes two main categories of cohesion: grammatical and lexical. In order to examine if there are statistically significant differences in the participants' scores of identifying grammatical and lexical cohesion, t-tests were conducted and Table 2 shows the results of the tests.

Table 2.

Independent-Samples Test between the Grammatical and lexical cohesion

Main categories	Sub-categories	N	Mean	Std. Deviation	F	P
Grammatical Cohesion	Reference	200	46.62	29.97		
	Ellipsis					
	Substitution					
	Conjunction					
Lexical Cohesion	Reiteration — Repetition				-4.827	0.000**
	Reiteration — hypon/ superordinate					
	Reiteration — near synonym	250	57.94	19.54		
	Reiteration — Antonym					
	Collocation					

*p<0.01

When the participants' mean scores for the two main categories were analyzed, statistically significant differences were found. According to the results, learners are more successful in identifying lexical cohesion when compared with grammatical cohesion (p=0,000 < 0,01 ; t = -4,827).

    A. Is there any significant difference in the identification of the sub categories of grammatical cohesion? (reference, ellipsis, substitution, conjunction)

Table 3.

Independent-Samples Test between the sub-categories of Grammatical cohesion

	Mean	Std. Deviation	F	P	Difference
Reference(1)	50.50	7.54584			1-2
Ellipsis(2)	33.33	19.93804			1-3
Substitution (3)	18.78	26.81765	125.587	0.000**	1-4
	83.83				2-3
Conjunction(4)		8.66120			2-4
					3-4

One Way ANOVA

*p<0.01

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	117617.581	3	39205.860	125.587	.000
Within Groups	61187.257	196	312.180		
Total	178804.838	199			

Table 3 shows the statistical analysis of the participants' scores for the subcategories of the grammatical cohesion. The results indicate that there is a significant difference among the participants' cohesion test scores within the subcategories of grammatical cohesion (p=0.000 ; F= 125.587). The scores indicate that conjunction is the easiest subcategory of grammatical cohesion whereas substitution is the most difficult of the cohesive ties under investigation.

The paired groups scores were also analyzed within grammatical cohesion category as it is shown in Table 3. The results indicate that there are statistically significant differences between the subcategories of "reference-substitution" and "reference-ellipsis" on the favor of reference. Additionally, a significant difference between "conjunction–reference" was also found in favor of conjunction. Therefore, we can conclude that learners are most successful in the identification of conjunctive devices within the main category of grammatical cohesion.

> B. Is there any significant difference in the identification of the sub categories of lexical cohesion? (repetition, synonym, superordinate/hyponym, antonym, collocation)

When the differences between the mean scores of learners' cohesion test were analyzed within the category of lexical cohesion, significant differences were found between repetition and superordinate/hyponym. (p=0.000 ; F= 7.079). As it is shown in Table 4, in the category of lexical cohesion the learners are most successful in identifying the subcategory of repetition while they were least successful in superordinate/hyponym.

Table 4.

Independent-Samples Test between the sub-categories of lexical cohesion

Sub-categories		Mean	Std. Deviation	F	p	Difference
Repetition (1)		65.47	13.07320			
Hyponym/ superordinate (2)	Reiteration	47.71	16.48141			1-2
						1-3
Near synonym (3)		54.20	19.17588	7.079	0.000	2-4
antonym (4)		60.50	23.73858			2-5
Collocation(5)		61.84	19.12724			

One Way ANOVA *p<0.01

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9852.496	4	2463.124	7.079	.000
Within Groups	85241.680	245	347.925		
Total	95094.176	249			

The participants' scores of subcategories in lexical cohesion were also analyzed within the paired groups. Statistically significant differences were examined between "repetition - superordinate/ hyponym" and "repetition -near synonym" in favor of repetition.

There were also significant differences between "superordinate/ hyponym - antonym" and "superordinate/ hyponym - collocation" in favor of antonym and collocation. This means that superordinate/hyponym is the most difficult sub category of lexical cohesion identified by the participants.

Discussion

The results of the statistical analysis reflect the order of difficulty for each cohesion category depending on the scores the learners received from the cohesion test. Based on the median, means and standard deviation results, it can be concluded that substitution is the most difficult cohesive device for the participants. Ellipsis is the second most difficult one, whereas conjunction is the easiest among the others.

These findings are similar with Al-Jarf (2001) and Monson (1982) who also found that the substitution/ellipsis structures were most difficult for Arab college students (Al-Jarf, 2001) and for all age groups except for 7-year-olds (Monson, 1982). Amaral (1985 cited in Al-Jarf, 2001) also suggested that lexical substitution, cataphora and nominalization are the most important cohesive devices that affect the difficulty and readability of a text. This finding is also supported in McCarthy's (2005: 43) study who found that "ellipsis within the verbal group may cause greater problems". This is parallel with Hinkel (2008: 159) who maintains that "lexical substitutions as well as ellipsis are not readily accessible even to advanced and trained NNS".

When the learners' cohesion test scores were analyzed in a detailed way, it was understood that the learners' low scores for ellipsis and substitution depend on their failure to identify these devices. As for the other devices such as reference, particularly for demonstrative references, and conjunction it was clear that although they could identify the reference they could not associate the referred item. For example, what the referred item of demonstrative reference *that* in

"All *that* is needed is the willingness to sacrifice a little bit of comfort, take a little bit of a risk and dare to be a little different" (line 47)

could not be identified by most of the learners. They failed to associate it with backward reference "our traffic problems would be solved" in line 45.

As for conjunction, they could identify most of the conjunctions but have difficulty in stating its type (adversative, causal or additive). For example, the most occurred conjunction *and* in the text was marked as additive in this particular sentence,

"Every few months a Government study or statement from an authoritative body claims that our motorway network is inadequate *and* must be extended". (line 4)

although it is a causal conjunction.

In lexical cohesion they mainly could not distinguish near-synonym and superordinate/hyponym. For example, *business community* (line 41) is the superordinate, *clients, boss, shareholders* in line (40) are the hyponyms, however, some learners marked them as synonym or near synonym. The difficulty in identifying *hyponymy* and *synonymy* may be due to the learners' inadequacy of lexical competence. This finding of the present study is in line with Cooper (1984:131) who distinguished practiced readers from unpracticed readers "by their relatively superior lexical competence". He also states that:

"Practiced readers not only have larger vocabularies, but have greater knowledge of lexical relationships. In particular, they have a better grasp of the ways in which writers use words to create and maintain textual relationships by exploring features like hyponymy and synonymy." (p.131)

When compared with the processing other lexical devices, learners might be considered successful in identifying collocations. This is rather surprising since it has been already known that in discourse analysis collocation may cause some problems. This is because; in some cases it is relatively difficult to decide whether a semantic relationship exists between the words or not to form a cohesive connection. The learners' scores (61,84%) which is rather high when compared with other lexical devices is partially contradictory with the claim of Benson &Benson& Ilson (1985) that is "collocations are arbitrary and unpredictable and that makes it difficult for non-native speaker to cope with them". It should be taken in mind that this particular study focuses on their ability in identifying collocations during the reading process; therefore it is questionable whether they could succeed in the production of collocations in speaking and writing.

The difficulties Turkish EFL learners face while reading in English is consistent with the findings of some researchers such as Nunan (1983) who studied in L1 context, Stoefen-Fisher (1988 cited in Al-Jarf, 2001) and Parish and Perkins (1984) who found out that proficiency level of learners in L2 plays a significant role in the comprehension of anaphoric reference.

In the present study, Turkish EFL learners seem to have many problems in processing the function of both grammatical and lexical cohesive devices. This may be related to their

inadequate linguistic ability, poor syntactic awareness and poor reading comprehension skills in EFL in general and reading in particular (Monson, 1982; Cooper, 1984 and Al-Jarf 2001).

Conclusion

The present study was an attempt to shed some light on how Turkish Foreign language learners majoring in ELT process grammatical and lexical cohesive ties while reading an argumentative text. Most of the cohesion problems of learners identified in this study may be due to the poor syntactic, morphological and semantic awareness, and inadequate knowledge of DA and DMs. In Turkey, although most of the learners are good at the theoretical structure (i.e. grammar) of the English language, they are not sufficient in the functional usage of this knowledge with semantic patterning. To solve this problem, implications for discourse analysis in the foreign language classroom, and for reading comprehension in particular, seems relevant. "Using principles of cohesion as a basis of teaching with a focus on lexicogrammar, learners might gain an understanding of the identification and application for meaning in English" (Crane, 2000:142)

Based on the results of the present study, it can be concluded that discourse analysis-based instruction can be helpful for the EFL learners to "decode" meaning in reading comprehension, even in L1 reading. Explicit instruction of DMs is advantageous for second/foreign language learners (Innajih, 2007). It might be effective not only to develop reading skills but all language skills since a detailed DA makes learners aware of the real language used in real contexts.

As for the findings of this study, Turkish FL learners' problems in identifying particularly the lexical devices such as synonyms and superordinates can be solved by showing them how such relations occur over sentence boundaries in texts (Carter and McCarthy, 1988). The close analysis of reading texts produced by native speakers might raise the awareness of lexical cohesion and support learners to examine their own writings and encourage them to compare their own lexical choice with that of native speakers.

Based on some studies (Moradan cited in Khatib, 2011 and Nunan, 1991), it is suggested that the instructor might compare the use of DMs in English with those the students use in their native language. Therefore, discourse based instruction in FL classroom does not only develop learners' reading skills, it also enhances other language skills such as writing and oral production.

Implications for ELT

The findings of this study should be broadly approached as it has some implications for ELT context. Since the participants of this study are on completion of their course of studies at university level, they are the prospective language professionals (teachers, material writers, etc.) and will be the decision makers on the appropriateness of the materials available for classroom and professional use.

Language teachers when designing teaching materials or engaging learners in different activities should consider incorporating insights and techniques from applied DA. It might be beneficial to be able to select and produce materials relevant to their own specific situations such as presenting and practicing one particular grammatical or conceptual topic (Massi, 2001). As DA covers and relates a wide range of explicative knowledge within linguistics, it may give theoretical and methodological insights to the future language educators by enabling

them to deal with real language used in the various communicative contexts outside the classroom (McCarthy, 1991; Cook, 1989).

Based on the results of the present study, the following suggestions can be made for future research: *(i)* Level of English proficiency, age and gender differences may yield different results and could be analyzed in-depth. *(ii)*The instruction program used in this study could be enriched and an experimental study could be conducted to observe comparatively the progress of students within this program with that of students not receiving instruction in the use of cohesion devices. *(iii)* This study focused on the receptive skill of reading, however, the use of cohesive devices on productive skills of speaking and writing could be studied for further analysis. *iv)* The concern of this study was the argumentative text type; different text types such as the narrative, descriptive and expository on the comprehension and identification of various cohesive types are needed further investigation by future research

References

Abdi, R. (2002). Interpersonal meta-discourse: An indicator of interaction and identity. *Discourse Studies,* 4 (2), 139-145. Retrieved in June 2013 from dis.sagepub.com/content/4/2/139.full.pd

Al-Jarf, R. (2001). Processing of Cohesive ties By EFL Arab College Students. Foreign Language Annals, 32, 2, 141-151 (2001). Retrieved in July 2013 from http://www.yearoflanguages.org/i4a/pages/Index.cfm?pageid=4035

Asher, Ronald E. and Simpson, James M. Y. (eds) (1994). *The Encyclopedia of Language and Linguistics*, Volumes 1–10. Oxford: Pergamon

Bex, T. (1996). *Variety in Written English. Texts in Society. Societies in Text*. Routledge. London and NewYork.

Benson, M., Benson, E., & Ilson, R. (1985). The structure of the collocational dictionary. *International Journal of Lexicography, 2*, 1-14. Retrieved in July 2013 from http://dx.doi.org/10.1093/ijl/2.1.1

Bloor, T. & Bloor, M. (1995). *The Functional Analysis of English.* London, New York: Arnold.

Brown, G., Yule, G. (1989). *Discourse analysis*. Cambridge: Cambridge University Press.

Bunton, D. (1999). The use of higher level metatext in PhD theses. *English for Specific Purposes.* 18 (1), S41–S56. Retrieved in July 2013 from http://dx.doi.org/10.1016/S0889-4906(98)00022-2

Carrell, P.L. (1984a). The effects of rhetorical organization on ESL readers. *TESOL Quarterly,* 18, 441-470. Retrieved in July 2013 from http://onlinelibrary.wiley.com/doi/10.2307/3586714/pdf

Carrell, P.L. (1984b). Evidence of a formal schema in second language comprehension. *Language Learning*, 34, 87-11. Retrieved in July 2013 from http://onlinelibrary.wiley.com/doi/10.1111/j.1467-1770.1984.tb01005.x/pdf

Carrell, P.L. (1985). Facilitating ESL reading by teaching text structure. *TESOL Quarterly*, 19(4), 727-752. Retrieved in July 2013 from www.jstor.org/stable/3586673

Carter, R. and McCarthy, M. (1988). *Vocabulary and Language Teaching: Applied Linguistics and Language Study*. London: Longman Group Limited

Carter, Ronald, Goddard, Angela, Reah, Danuta, Sanger, Keith and Bowring, Maggie. (2001). *Working with Texts: A Core Introduction to Language Analysis*. 2nd ed. London: Routledge

Crystal, D., (2006). *A Dictionary of Linguistics and Phonetics. Fifth Edition.* United Kingdom: Blackwell Publishing.

Cook, Guy (1989). *Discourse*. Oxford: Oxford University Press.

Cooper, M. (1984). Linguistic Competence of Practised and Unpractised Non-native Readers of English. In J. C. Alderson & A. H. Urquhart (eds), *Reading in a Foreign Language*, 122-35. Harlow: Longman Group Ltd.

Crane, P. A. (2000). Texture in Text: A Discourse Analysis of a News Article Using Halliday and Hasan's Model of Cohesion. Online. Available: Retrieved in June 2013 from http://www.library.nakanishi.ac.jp/kiyou/gaidai(30)/08.pdf.

Dailey-O'Cain, J. (2000). The sociolinguistic distribution of and attitudes toward focuser like and quotative like. *Journal of Sociolinguistics,* 4, 60–80. Retrieved in June 2013 from http://onlinelibrary.wiley.com/doi/10.1111/1467-9481.00103/pdf

Day, R. R. and J. Bamford. (1998). *Extensive reading in the second language classroom*. Cambridge: Cambridge University Press.

Day, R. R. and J. Bamford. (2002). Top ten principles for teaching extensive reading. *Reading in a Foreign Language* 14/2. Retrieved in June 2013 from http://nflrc.hawaii.edu/rfl/October2002/

De La Paz, S. (2005). Effects of historical reasoning instruction and writing strategy mastery in culturally and academically diverse middle school classrooms. *Journal of Educational Psychology, 97,* 139-156. Retrieved in June 2013 from http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=2005-05100-001

Driver, R., Newton, P., & Osborne, J. (2000). Establishing the norms of scientific argumentation in classrooms. *Science Education, 84*(3), 287-312. Retrieved in June 2013 from https://cset.stanford.edu/sites/default/files/files/documents/publications/Osborne-Establishing

Eggins, S. (1994). *An Introduction to Systemic Functional Linguistics*. Pinter: London.

Eskey, D. (2005). Reading in a second language. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 563–580). Mahwah, NJ: Erlbaum.

Felton, M., & Herko, S. (2004). From dialogue to two-sided argument: Scaffolding

adolescents' persuasive writing. *Journal of Adolescent & Adult Literacy*, 47(8), 672–683. Retrieved in July 2013 from http://www.jstor.org/discover/10.2307/40016901?uid=3739192&uid=2&uid=4&sid=21102546895857

Field, Y. & Yip, L. M. O. (1992). A comparison of internal conjunctive cohesion in the

English essay writing of Cantonese speakers and native speakers of English. *RELC Journal*, 23(1), 15-28. Retrieved in July 2013 from http://rel.sagepub.com/content/23/1/15.full.pdf+html

Grabe, W., (2002). "Second language reading". In R.B., Kaplan (Ed.), *The Oxford handbook*

of applied linguistics (pp.170-190). Oxford: Oxford University Press.

Grabe, W. (2004). Research on teaching reading. Annual Review of applied Linguistics, 24,

44-69.

Halliday, M.A.K. and Hassan, P. (1976). *Cohesion in English.* London: Longman.

Halliday, M.A.K. (1978). *Language as Social Semiotic. London*: Edward Arnold

Hays, P.R., (1992). Discourse markers and L2 acquisition. *Papers in Applied Linguistics-*

Michigan, 7, 24–34.

Hinkel, E. (2008). *Second language writers' text*. Lawrence Erlbaum Associates.

Hymes, D., (1979). "On communicative competence". In C.J., Brumfit and K., Johnson (Eds.),

The communicative approach to language teaching (pp.5-26). Oxford: Oxford University Press.

Innajih, A. (2007). The effect of conjunctive types on the English language reading

comprehension of Libyan university students. [Online] Available: Retrieved in June 2013 from www.ecls.ncl.ac.uk/publish/text/TheEffectofConjunctive/

Intarparawat, P. & Steffensen, M. S. (1995). The use of meta-discourse in good and poor ESL

essays. *Journal of Second Language Writing,* 4, 253-272. Retrieved in June 2013 from ttp://dx.doi.org/10.1016/1060-3743(95)90012-8,

Ivanov, S. (2009). *Discourse analysis in EFL reading*. Retrieved in June 2013 from

http://dspace.mah.se:8080/bitstream/Sergej%20**Ivanov**%20degree%2project.pdf

Jalilifar, A. R., & Alipour, M. (2007). How explicit instruction makes a differences:

Metadiscourse markers and EFL learners' reading comprehension skill. *Journal of College Reading and Learning*, 38(1), 35-52.

Johns, A. M. (1984). Textual cohesion and the Chinese speakers of English. *Language*

Learning and Communication. 3(1), 69-73.

Johnson, P. (1992). Cohesion and coherence in compositions in Mayland English language.

RELC Journal, 23(2), 1-17.

Kang, J. Y. (2005). Written narratives as an index of L2 competence in Korean EFL learners. *Journal of Second Language Writing* 14(4): 259-279

Khatip, M. (2011) Comprehension of Discourse Markers and Reading Comprehension. English Language Teaching. 4 (3), 243-250. Retrieved in June 2013 from www.ccsenet.org/elt

Khabiri, M. and Hajimaghsoodi, A. (2012). The Effect of Discourse Analysis-based Instruction on Iranian EFL Learners' Reading Comprehension. *American Journal of Scientific Research*, 66:23-36. Retrieved in June 2013 from http://www.eurojournals.com/ajsr.htm

Matthews, P.H. (1997) *The Concise Oxford Dictionary Of Linguistics.* Oxford: Oxford University Press.

Mauranen, A. (1993). Contrastive ESP rhetoric: Meta-text in Finnish-English economic texts. *English for Specific Purposes*, 12, 89-103. Retrieved in June 2013 from http://dx.doi.org/10.1016/0889-4906(93)90024-I,

McCarthy, M. (1991). *Discourse analysis for language teachers*. Cambridge: Cambridge University Press.

McCarthy, M. J. (2005). Fluency and confluence: What fluent speakers do. *The Language Teacher 29(6)*: 26-28. Retrieved in June 2013 from www.jalt-publications.org/tlt/articles/2005/06/mccarthy

McCarthy, M. and Ronald, C. (1994). *Language as Discourse*. London: Longman.

Monson, D. (1982). *Effect of Type and Direction on Comprehension Of Anaphoric Relationships*. ERIC Document Reproduction Service No. ED278003

Muller, S., (2004). Well you know that type of person: Functions of well in the speech of American and German students. *Journal of Pragmatics*, 36, 1157–1182. Retrieved in July 2013 from www.elsevier.com/locate/pragma

Norment, N. (1994). Contrastive analyzes of cohesive devices in Chinese and Chinese ESL in narrative and expository written texts. *Chinese Language Teaching Association Journal*, 29, 1, 49-81.

Nunan, D. (1983). Distance as a Factor in the Resolution of Cohesive Ties in Secondary Texts. *Australian Journal of Reading*, 6, 1: 30-34.

Nunan, D. (1991). *Language Teaching Methodology*. , Prentice Hall International.

Nunan, D. (1993). *Introducing discourse analysis* . London: Penguin.

Osisanwo, W. (2005). *Introduction to Discourse Analysis and pragmatics.* Lagos: Femulus Fetop Publishers.

Parish, C. and Perkins, K. (1984). Using Tests of Anaphoric Reference in ESL Reading. ERIC Document Reproduction Service No. ED243307.

Perez, M. A. & Macia, E. A. (2002). Meta-discourse in lecture comprehension: Does it really help foreign language learners. *Atlantis,* 14 (2), 3-21. Retrieved in June 2013 from http://www.jstor.org/discover/10.2307/41055042?uid=3739192&uid=2&uid=4&sid=2 1102547663597

Sellers, V.D., (2000). Anxiety and reading comprehension in Spanish as a foreign language. *Foreign Language Annuals*, *33*(5)*,* pp.512-521. Retrieved in June 2013 from http://onlinelibrary.wiley.com/doi/10.1111/j.1944-9720.2000.tb01995.x/pdf

Shanahan, C. (2004). Teaching Science Through Literacy. In T. Jetton&J. Dole, (Eds.). *Adolescent Literacy Research and Practice* (pp. 75-93). New York: The Guildford Press.

Smith, F., 1978. *"Reading"*. Cambridge: Cambridge University Press.

Steffensen, M. S. & Cheng, X. (1996). Meta-discourse and text pragmatics: How students write after learning about meta-discourse. *ERIC Document Reproduction Service,* No. ED400709.

Schwarz, B. B., Neuman, Y., Gil, J., & Ilya, M. (2003). Construction of collective and individual knowledge in argumentation activity. *Journal of the Learning Sciences*, 12(2). 219-256. Retrieved in June 2013 from http://www.jstor.org/discover/10.2307/1466893?uid=3739192&uid=2&uid=4&sid=21 102547663597

Trillo, J. R., (2002). The pragmatic fossilization of discourse markers in non-native speakers of English. *Journal of Pragmatics,* 34, 769–784. Retrieved in June 2013 from http://dx.doi.org/10.1016/S0378-2166(02)00022-X

Wenquan, W., 2009. *"Application of discourse analysis in college reading class".* Retrieved from http://www.scribd.com/doc/40905618/APPLICATION-OF-DISCOURSE-ANALYSISIN-COLLEGE-READING-CLASS.

Wiley, J. & Voss, J. F. (1999). Constructing arguments from multiple sources: Tasks that promote understanding and not just memory for text. *Journal of Educational Psychology*, 91, 301-311. Retrieved in June 2013 from http://ldt.stanford.edu/~educ39105/paul/articles_2006/Constructing%20arguments

Zohar, A., & Nemet, F. (2002). Fostering students' knowledge and argumentation skills through dilemmas in human genetics. *Journal of Research in Science Teaching,* 39, 35 – 62.

Appendix

Cohesion Test

Read the following text. Identify the grammatical and lexical cohesive devices and illustrate them on the table

Two –Wheel Solution

1 **THOUSANDS** of acres of our countryside are buried for ever

2 under ribbons of concrete and tarmac every year.

3 Every few months a Government study or statement from an

4 authoritative body claims that our motorway network is inadequate and

5 must be extended.

6 Week by week the amount of car traffic on our roads grows, 13

7 percent in the last year alone.

8 Each day as I walk to work, I see the ludicrous spectacle of

9 hundreds of commuters sitting alone in four or five-seater cars and

10 barely moving as fast as I can walk.

11 Our traffic crisis now presents us with the classic conservation

12 dilemma - too many people making too much demand on inadequate

13 resources.

14 There are four possible solutions: One, provide more resources,

15 in this case build more roads and car parks; two, restrict the

16 availability of motorised transport by artificially raising the price of

17 vehicles and fuel: three, license only those with a good reason for

18 needing motorized transport and prohibit unnecessary use; four

19 reduce the average size of motor vehicles, especially those used for

20 commuting purposes.

21 The ideal vehicle for transporting one person to and from his or

22 her place of work has been in use for as long as the motor car. There

23 is room on our existing roads for present and future needs but not if

24 they are to be clogged up with half-empty cars when the motor cycle

25 would serve the same purpose more than adequately.

26 Inevitably, objections will be raised to the promotion of the motor

 27 cycle as the saviour of our environment.

28 It is dangerous: It can be but three-fifths of all serious motor

29 cycling accidents are caused by cars. So, by transferring some

30 drivers from cars to motor cycles, the risk can immediately be

31 reduced.

32 Department of Transport statistics have shown that a car driver

33 is nine times more likely to take someone else with him in an accident

34 than a motor cyclist, so riding a motor cycle is actually making a

35 contribution to road safety.

36 Our climate is too cold and wet: Have we British really become so

37 soft that we couldn't face a ride on a chilly morning? A good

38 waterproof jacket costs a lot less than a new bypass.

39 But I must drive a BMW or Jaguar or I'll have no credibility with

40 my clients, my boss, my shareholders: That is just a matter of fashion

41 which most of the business community follow as slavishly as sheep.

42 If the right person were to set the lead and exchange his tin box

43 traffic jammer for an environmentally responsible set of two wheels

44 the rest of the business sheep would be falling over themselves to

45 follow suit and some of our traffic problems would be solved at a

46 stroke.

47 All that is needed is the willingness to sacrifice a little bit of

48 comfort, take a little bit of a risk and dare to be a little different.

49 On the other hand, what is a few thousand acres of countryside

50 each year and a ten-mile tailback?

(from Cambridge Weekly News, 22 September, p. 11)

tarmac: the bituminous surface of a road

Grammatical Cohesion

References

Line no.	Reference	Line Reference no.	Referenced Item	Reference type

Ellipsis

Line no.	Ellipsis	Ellipsed information

Substitution

Line no.	Substitution	Substituted information

Conjunctions

Line no.	Conjunction	Type of conjunction

Lexical Cohesion

Reiteration:

Collocation: