USE OF CONNECTIVES IN WRITTEN DISCOURSE:
A STUDY AT AN ELT DEPARTMENT IN TURKEY

Dilek ALTUNAY

Ph.D. THESIS

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In English Language Teaching

Advisor: Assoc. Prof. Dr. Ümit Deniz TURAN

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ÖZ

YAZILI ANLATIMDA BAĞLAÇLARIN KULLANIMI: TÜRKİYE'DEKİ BİR İNGİLİZCE ÖĞRETMENLİĞİ PROGRAMINDA YAPILAN ÇALIŞMA

Dilek ALTUNAY

İngilizce Öğretmenliği Bölümü

Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü

Danışman: Doç.Dr. Ümit Deniz TURAN

Bu tezin amacı Türkiye'deki bir İngilizce Öğretmenliği programında okuyan öğrencilerin önceden planlanmamış yazılı anlatımda bağlaçları nasıl kullandıklarını araştırmaktır. Çalışmanın araştırma soruları şunlardır: 1. İngilizce öğretmenliği programında okuyan Türk öğrenciler hangi bağlaçları kullanmaktadırlar? 2. Bu bağlaçları hangi bağdaşıklık ilişkilerini göstermek için kullanmaktadırlar? 3. Bu bağlaçları ne kadar uygun kullanmaktadırlar? 4. Bu bağlaçları ne kadar doğru kullanmaktadırlar? Çalışmanın katılımcıları Anadolu Üniversitesi Eğitim Fakültesi İngilizce Öğretmenliği lisans programındaki Akademik Yazma ve Rapor yazımı dersini alan 137 birinci sınıf öğrencisidir. Bazı öğrencileri demografik ankete verdikleri cevaplara göre eledikten sonra geri kalan 132 öğrencinin verileri çalışmada kullanılmıştır. Çalışmanın verileri 2007-2008 akademik yılının Bahar döneminde toplanmıştır. Deneklerden giriş, gelişme ve sonuç bölümlerinden oluşan en az 3 paragraflık sav içeren (argumentative) kompozisyon yazmaları istenmiştir. Denekler tarafından kullanılan bağlaçlar her soru için araştırmacı ve ikinci bir kodlayıcı tarafından kodlanmıştır. İstatistiksel analiz için GoldVarb X istatistik programı kullanılmıştır. Çalışma öğrencilerin kompozisyonlarında kullandıkları bağlaçların çeşit olarak az olduğunu göstermiştir. Türkçeden İngilizceye transfer yapılmasından ya da bağlaçların gösterdiği ilişkinin bilişsel ve söz dizimsel kompleksliğinden kaynaklanabilen dilbilgisi ve noktalama sorunları bulunmuştur. Bağlaçların gereğinden az ya da fazla kullanımına sık rastlanılmamıştır, ancak yanlış kullanımlar bulunmuştur. Öğrenciler bağlaçların ana anlamını daha sık kullanmakta ve bağlaçların nasıl birbirlerinin yerine kullanılabileceğini bilmemektedirler. Öğrencilerin bağlaç çeşitleri arasındaki ayırımın farkında olmadıkları ortaya çıkmıştır. Öğrenciler birden fazla kelimeden oluşan bağlaçları daha az kullanmaktadırlar. Bazı cümlelerde öğrencilerin bağlaçları hangi bağdaşıklık ilişkisi için kullandıkları anlaşılamamıştır. Bu durum öğrencilerin diğer bağdaşıklık araçlarını uygun ve doğru kullanamadıklarının ve bu yüzden uygun bağlacı kullandıklarını düşünseler bile anlaşılabilir ve bağdaşık metin oluşturamadıklarının bir göstergesi olabilir.

Anahtar kelimeler: bağlaçlar, bağdaşıklık, bağdaşıklık ilişkileri

ABSTRACT
USE OF CONNECTIVES IN WRITTEN DISCOURSE:

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Dilek ALTUNAY
English Language Teaching Department
Anadolu University Graduate School of Educational Sciences
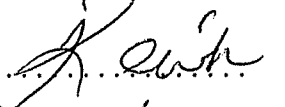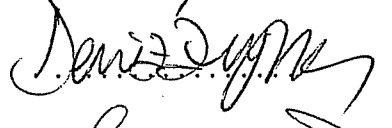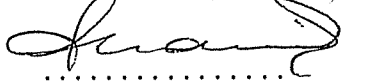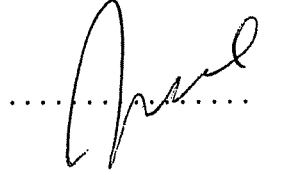**Supervisor: Assoc. Prof. Dr. Ümit Deniz TURAN**

This dissertation aims to investigate the use of connectives in unplanned argumentative written discourse by Turkish ELT department students. The research questions of the study are: 1.Which discourse connectives do Turkish ELT department students use? 2. For what coherence relations do Turkish ELT department students use those connectives? 3. How appropriately do they use those connectives? 4. How correctly do they use those connectives? The participants of the study are 137 first year students taking Academic Writing and Report Writing course in the ELT B.A. program at Anadolu University, Education Faculty in Turkey. After excluding some students depending on their answers to the demographic questionnaire, the remaining 132 students have been chosen as the main participants of the research. The data for the study was collected in the spring semester of the 2007-2008 academic year. The participants were asked to write a well-developed argumentative essay. The connectives used by the participants were coded for each question both by the researcher and a native speaker as a second rater. Goldvarb X statistics program was used by the researcher for the statistical analysis. The study reveals that learners do not use a large variety of connectives in their essays. There are still some grammatical and punctuation errors, which may stem from L1 transfer or from the cognitive and syntactic complexity of the relation that the connective indicates. Misuses of some connectives were found whereas underuse and overuse of connectives are not so frequent. Learners use the unmarked meanings of the connectives more than their marked meanings, and they do not know how to substitute connectives. Learners are not aware of coordinate, subordinate and adverbial connective distinction, and they do not tend to use multiword connectives. For what relation they used the connectives was not understood in some cases. This may signal that learners may not be able to use other cohesive devices

appropriately and correctly, and hence they cannot produce comprehensible and coherent texts even if they may think that they choose the appropriate connective.

Key words: connectives, coherence, coherence relations

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	Adı-Soyadı	**İmza**
Üye (Tez Danışmanı)	: Doç.Dr.Ümit Deniz TURAN	
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Üye	: Prof.Dr.Deniz ZEYREK	
Üye	: Doç.Dr.İlknur MAVİŞ	
Üye	: Doç.Dr.Işıl AÇIKALIN	

Prof.Dr.Esmahan AĞAOĞLU
Anadolu Üniversitesi
Eğitim Bilimleri Enstitüsü Müdürü

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ÖZGEÇMİŞ

Dilek ALTUNAY
İngilizce Öğretmenliği Anabilim Dalı
Doktora

Eğitim

Y.Ls.   2003 Bilkent Üniversitesi, Eğitim Bilimleri Enstitüsü, İngilizce Öğretmenliği

Ls.   1997 Bilkent Üniversitesi, Uygulamalı Yabancı Diller Y.O, Bankacılık ve Finans

Lise   1991 İzmir Karataş Lisesi, Fen Bölümü

İş

1997-2001 İngilizce Mütercim, Hava Kuvvetleri Komutanlığı, Ankara-İzmir

2004-2005 Burslu öğrenci, Anadolu Üniversitesi, Açık Öğretim Fakültesi, Eskişehir

2005-   Öğretim Görevlisi, Anadolu Üniversitesi, Açık Öğretim Fakültesi, Eskişehir

Alınan Burs ve Ödüller

1997   Bilkent Üniversitesi, Uygulamalı Yabancı Diller Yüksek Okulu Birinciliği

1997   Bilkent Üniversitesi, Bankacılık ve Finans Bölümü Birinciliği

1999   Çeviri faaliyetlerindeki başarısından dolayı takdir belgesi, HV.K.K.

2002   Fulbright Bursu, Iowa State University, College of Education, Ames, Iowa, U.S.

Yayınlar

Altunay, D.&Mutlu, M.E. (2008). Distance English Language Teacher Training Program in Turkey:e-learning opportunities for the right to education, Distances et Savoirs. Hors série. Accessible at http://www.distanceetdroitaleducation.org/contents/DS2008-Mutlu-Altunay.pdf

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CHAPTER I

INTRODUCTION

1.1. Background to the Study

The goal of foreign language learning is to become able to use the target language appropriately and correctly in order to communicate effectively. This ability to use language is called communicative competence. One of the main components of communicative competence is discourse competence. Discourse competence is an umbrella term which is used to refer to two abilities in the field of linguistics. One is interactional competence i.e., the ability to communicate effectively in conversations. The other is textual competence i.e., the ability to create coherent texts. This means whether learners can communicate effectively in written language depends to the extent they can produce coherent texts.

Using connectives appropriately and correctly in written language is an important component of textual competence. The reason is that readers may not have any background knowledge about the subject written, or they may fail to activate their schemata even if they have some background knowledge about the subject. Researchers state that connectives are one of the elements used by writers to encode the message in the form of a written text and the reader must use them to interpret the message given by the writer i.e, when used well they act as guideposts for the reader to perceive the text from the writer's perspective and to see shifts and changes in thought, comparisons, contrasts, juxtapositions in time and space, and countless other relational concepts (Dubin & Olhstain, 1980; Holloway, D.W, 1981; Sloan, 1983). Meyer et. al., (1980) suggest that use of connectives help organize discourse representation and faster discourse segment processing. As stated by Virtanen (2004), appropriate and correct use of connectives is important because they indicate the kinds of thought processes involved in the text, and they invite the reader to construe particular logico-semantic relations between units of the text. Similarly, Zamel (1983) states that connectives are very important in writing because they signal the relationship between ideas and affect the meaning that the writer is trying to convey. This helps understanding the train of

thought of the writer clearly and affects the writing quality. Misuse, overuse or underuse of connectives in written texts may cause a mismatch between the message that the writer wants to convey and what s/he conveys in the text. Prevention of such errors is particularly important for the academic achievement of university students who take subject area courses in a foreign language such as ELT department students. Therefore, how those students use connectives in their written language must be investigated. Erroneous and inappropriate uses must be identified, described, and the reasons behind those types of uses must be explained. How those types of errors can be prevented must be discussed so that they do not become fossilized in learner language.

The current study was carried out with Turkish ELT department students to fill this gap. In the rest of this chapter, the problem, aim, and importance of the study will be mentioned. Then, the limitations of the study will be stated. Finally, the definitions of the important terms for the thesis i.e., communicative competence, discourse competence, text, coherence, coherence relations, and connective will be given.

1.2. Problem

Most teachers of writing meet essays with unclear meaning because EFL learners cannot produce coherent texts. This may be because students cannot use connectives appropriately and correctly. According to Celce-Murcia & Larsen-Freeman (1999), if no connective is used or if the wrong connective is used, the speaker or writer intention can be misunderstood. They state that use of connectives is particularly more important in reading than speaking because there are no paralinguistic cues (e.g., tone of voice) or extralinguistic cues such as gestures to help the reader understand the writer's intention.

As Zamel (1983) states, in traditional approaches, students are just given a list of connectives that are categorized according to function. Those lists do not show how to establish logical relationships between ideas by using connectives, and for this reason, it seems that they are not so effective as teaching materials. Some students think that connectives can be used interchangeably. For example, they may substitute 'however' for 'on the contrary'. When teachers use lists, some students may think that those words

are syntactically equivalent, which is not the case. Therefore, students must learn the meanings of the connectives, the semantic relationships they express, and also the grammatical restrictions i.e., "why linking devices that are lexically similar cannot be used to perform the same syntactic functions" (Zamel, 1983). In addition, teachers should keep in mind that learning when not to use those links is important as well as learning how to use those links.

According to Celce-Murcia & Larsen-Freeman (1999), there are some problems regarding to logical connectives for ESL/EFL learners: For instance, students do not know the difference between 'because' and 'because of'.

1. *His father was angry **because of** she broke the window.*

Students do not know that 'because of' requires a noun object whereas 'because' is an adverbial subordinator.

The same problem is faced with in the use of 'as a result of' instead of 'as a result', or using 'due to' or 'on account of' as adverbial subordinators.

2. *I could not pass the exam **due to** I did not study.*

It is also stated in the literature that students have problems with 'then'/'after' in that their use violates the aspectual constraint and the given-new constraint. To see better what kinds of errors learners make while using 'then', it may be useful to make a brief explanation about these constraints though they are not the main focus of the current study:

The aspectual constraint states that the event must follow a completed preceding event to qualify for foregrounding. As stated in Tickoo (2002), native speakers accept the 'then' –marking of 3b, but do not accept 4b. What makes the use of 'then' marking felicitous in 3b is that 3b is in chronological order with respect to 3a, and the situation of a is completed prior to the commencement of the situation of b. The same is not true for the chronological ordering in b.

3a. I got home at five.
*b. **Then** I took the children to the movies.*

4a. I thought he was wrong.
*b. **Then** I told him so.*

In 4a, the aspectual constraint is violated because 4a has no end-point i.e., it is atelic.

As for the given-new constraint, it states that for an event to qualify for foregrounding, the proposition of the clause must be new information at the time of the utterance of the clause.

There are three types of given (or non-given) information: presupposed, shared knowledge and anticipated cited in Tickoo (2002).

Presupposed Event:

5a.The Johnsons had a baby.
*b.**(#Then)** they called him Tom./Tom, they called him.*
c. # They gave him a name.

Since the event of 5b follows the event of 5a in real time, and it occurs after the completion of the event of a, the aspectual constraint is fulfilled. But, 5c after 5a is infelicitous. The reason is that the proposition of 3b is given information at the time of its utterance in other words it is *presupposed* information that a baby is given a name after it is born.

Shared Knowledge Event:

6a. I took the Mathematics exam.
*b. **And (# then)** I passed it.*

The given-new constraint is violated because the proposition of 6b is not new information at the time of its utterance because passing or failing is likely to be perceived as occurring concurrently with the taking of the exam, rather than after it.

Anticipated Event:

Tickoo (2002) explains what is meant by anticipated event by giving the following examples:

> 7a. I left for class at 9:30
> b. **and** arrived in the nick of time./ I arrived in the nick of time.
>   **and (#then)** I arrived in the nick of time.

7b is in chronological order with respect to 7a, but it is not entirely new information at the time of its utterance: at the time of the utterance of 7b, it is presupposed that one of a set of actions that can occur after 7a will follow it. When we are told that someone has set off for a particular destination, it is presupposed that s/he will either get there or not get there. Hence, arrival is anticipated (Tickoo, 2002)

Briefly, for felicitous use of 'then' three conditions must be met: 1.It must be perceived as central to the narrative theme. 2. It must follow a completed preceding event (the aspectual constraint). 3. It must also be new information in its context of occurrence (the given-new constraint) (Tickoo, 2002)

Crewe (1990) argues that ESL students do not only misuse the logical connectives (e.g., 'on the contrary' is used instead of 'on the other hand'), they also overuse them. This view is also supported by the Hong Kong Certificate Education Examination (HKCEE) Annual Report (1993:105 cited in Leung, 2005) which states that excessive use of connectives is one of the problems with English learners of students in Hong Kong. Overuse of connectives can be confusing for the reader. Non-use is preferred to misuse or overuse because readers can construe logical links even if they are not explicit whereas misuse lead to comprehension problems. Crewe (1990) claims that mechanical exercises in coursebooks are possible sources of the problem and logical connectives are seen as 'stylistic enhancers'. In other words, students see them as words or expressions used in a text in order to give it an 'educated' or 'academic' look, whereas in fact logical connectives should be regarded as discourse units organizing chunks of a text in relation to the direction of the argument. He adds that not only the sentence that includes the connective, but also the argument of the text as a whole is very difficult to process and may sound illogical if the links are misused.

1.3. Aim

This dissertation aims to investigate the use of connectives in written discourse by Turkish ELT department students. More specifically, the study investigates how those students use connectives to write a coherent text.

1.4. Importance of the Study

The study is important because it will give us idea about the written discourse competence i.e., textual competence of the 1st year ELT department students. This is particularly important because students take subject-area courses after the first year and students' textual competence may affect their academic achievement. Since appropriate and correct use of connectives is important in conveying ideas effectively and in a coherent way, the study will give us some ideas about the textual competence of the Turkish ELT department students at Anadolu University. In addition, how connectives are used by ELT department students, who are prospective EFL teachers, is particularly important because they will provide oral and written input to their own students after graduation and the language they will use will be one of the factors that will affect their students' learning when those participants become teachers. Therefore, students' inappropriate and incorrect uses of language must be identified and corrected before they become fossilized.

1.5. Limitations

The limitation of the study is that the data has been collected only from the first-year students in the ELT department at Anadolu University, Eskişehir, Turkey.

1.6. Definitions

1.6.1. Communicative competence: The goal of language learning is to become able to use language in a correct and appropriate manner in order to communicate effectively. This ability to use language is called communicative competence. Communicative competence has four main components: sociocultural competence, strategic competence, discourse competence, and grammatical competence.

1.6.2. Discourse competence: Discourse competence is an umbrella term referring to two abilities in the field of linguistics. One is interactional competence i.e., the ability to effectively communicate in conversations. The other is textual competence i.e., the ability to create coherent texts.

1.6.3. Text: Text is a written passage of any length that forms a unified whole.

1.6.4. Coherence: Coherence refers to that utterances in a text are logically related to each other resulting in meaningful mental representations to occur in the readers' mind while reading it even if the reader does not have any prior knowledge about the subject mentioned in the text.

1.6.5. Coherence relations: Coherence relations refer to logical relations between utterances, which help readers organize discourse relations and grasp the discourse meaning in a text.

1.6.6. Cohesive ties: Cohesive ties are the major elements of coherence. According to Halliday & Hasan (1976), these elements can be grouped as follows:
 Reference (antecedent-anaphor relations, the definite article 'the', and demonstrative pronouns); (2) Lexical cohesion (frequent occurrence of the related lexical items); (3) Substitution (forms as 'one', 'do', 'so',etc., and ellipsis), (4) Connectives (words like 'and', 'but', 'yet', etc.).

1.6.7. Connective: Connectives are lexical items that are explicit signals of coherence relations. They are clues that constrain relations, and help writers to express relations and readers to recognize those relations particularly when there is no schematic guidance.

The terms 'connective', 'connector', 'cohesive device', 'cohesive tie', 'linker', 'linking device', 'logical connective', 'logical connector' or 'discourse marker' may be used interchangeably to refer to the same concept in the literature. Only the term 'connective' will be used for unity of terminology in the present study.

CHAPTER 2
LITERATURE REVIEW

This chapter first describes some of the main coherence views, namely, Halliday & Hasan (1976), Rudolph (1988), Fahnestock (1983), Kehler (2002), Rhetorical Structure Theory (RST). Kehler (2002) and Halliday & Hasan (1976) models will be explained in detail since the former was used in the pilot and the latter was used in the current study. The remaining views will be explained briefly. What is meant by the term 'connective' will also be explained in detail in this chapter. The difference between the terms 'connective' and 'discourse marker' will be mentioned, and the importance of the connectives will be emphasized. Then, punctuation rules for connectives will be given. The chapter will also include research on connectives in the field of linguistics, and research in the field of ELT.

2.1. Views on Coherence

2.1.1. Halliday & Hasan (1976)

Halliday & Hasan (1976) offers the most comprehensive treatment of what constitutes a text. They think that what makes a set of sentences a text depends on texture, i.e., coherence, which is created by the coherence relationships within and between the sentences. According to Halliday & Hasan , " a text has texture and this is what distinguishes it from something that is not a text…the texture is provided by the cohesive relation…where the interpretation of some element in the discourse is dependent on that of another" (Halliday & Hasan,1976).

Coherence, or texture, according to Halliday & Hasan, is the combination of semantic configurations of two different kinds: register and cohesion. Register refers to the variety of language which is appropriate for the situation of the speech event (Carrell, 1982). The main focus of Halliday & Hasan is cohesion. Halliday & Hasan suggest a taxonomy of different types of cohesive ties in four main groups: (1) reference (antecedent-anaphor relations, the definite article 'the', and demonstrative pronouns);

(2) lexical cohesion (frequent occurrence of the related lexical items); (3) substitution (forms as 'one', 'do', 'so',etc., and ellipsis), (4) conjunction (words like 'and', 'but', 'yet', etc.).

The example below, which is from Halliday & Hasan (1976), explains the concept of coherence relationship:

1. *Wash and core six cooking apples. Put them into a fireproof dish.*

Halliday & Hasan say that "it is clear that 'them' in the second sentence refers back to (is ANAPHORIC to) the *six cooking apples* in the first sentence. This ANAPHORIC function of 'them' gives cohesion to the two sentences, so that we interpret them as a whole; the two sentences together constitute a text' (1976:2).

Halliday& Hasan (1976) created a taxonomy of types of coherence relationships and the cohesive devices that indicate them. Halliday & Hasan (1976) offers 4 types coherence relations i.e., additive, adversative, causal, temporal. Each of these relations will be explained below in detail.

2.1.1.1. Additive relations

The words 'and', 'or' and 'nor' all used cohesively as conjunctions and they are classified as additive. The 'and' relation shows that there is another point taken in conjunction with the previous one.

2. *I couldn't send all the horses, you know, because two of them are wanted in the game. **And** I haven't sent the two Messengers either.*(Halliday & Hasan, 1976, p.246)

The basic meaning of the conjunctive 'or' relation is alternative.

3. *'Shall we try another figure of the Lobster Quadrille?,the Gryphon went on. **'Or** would you like the Mock Turtle to sing a song?'* (Halliday & Hasan, 1976, p.246)

Semantic similarity, in which the source of cohesion is the comparison of what is being said with what has gone before is also considered as additive. Forms such as 'similarly', 'likewise', 'in the same way' are used by the speaker or writer to show that a point is being reinforced or a new one added to the same effect.

4. *Your directors are planning for steady growth over a considerable period of time.* **Similarly** *our intentions in adopting this new investment policy are focused on the long-term prospects of the company.* (Halliday & Hasan, 1976, p.247)

There are also connectives that are used to indicate dissimilarity. 'On the other hand', 'by contrast', 'as opposed to this' are some of those connectives.

5. *Our garden didn't do very well this year.* **By contrast**, *the orchard is looking very healthy.* (Halliday & Hasan, 1976, p.247)

Another type of Additive Relation is apposition, which shows exposition or exemplification relation. 'To put it another way', 'I mean', 'in other words', 'that is', 'that is to say' are some of the items which are used in the expository sense. Some of the items that are used in the exemplificatory sense are 'thus', 'for instance', 'for example'.

6. *I wonder whether that statement can be backed up by adequate evidence.-***In other words**, *you don't believe me.* (Halliday & Hasan, 1976, p.248)

There are also items combining the additive sense with the sense of afterthought. They are the indication of de-emphasis i.e, they reduce the weight accorded to the presupposing sentence and to its connection with what went before. Some examples are 'by the way' and 'incidentally'.

2.1.1.2. Adversative relations

The meaning of the Adversative Relation refers to 'contrary to expectation'. Some connectives indicating adversative relations show concession. Some of them are 'but', 'however', 'yet', 'although'.

Correction is another form of the adversative relation. The general meaning is 'contrary to expectation', but the special sense conveyed by this form is 'as against what has just been said'. Some expressions used for this relation are 'on the contrary', 'at least', 'rather', 'instead'.

7. *He showed no pleasure at hearing the news.* ***Instead*** *he looked even gloomier.* (Halliday & Hasan, 1976, p. 254)

Another form of is Dismissal, which "presupposes that some circumstances have been referred to which are then dismissed as irrelevant.(Halliday & Hasan, 1976, p. 254) Expressions showing this type of Adversative Relation are: 'in any/either case/event', 'whether...or not', 'any/either way', 'anyhow'.

8. *We may be back tonight;I'm not sure.* ***Either way****, just make yourselves at home.* (Halliday & Hasan, 1976, p. 254)

2.1.1.3. Causal relations

According to Halliday & Hasan (1976), the simple form of Causal Relation is expressed by connectives such as 'hence', 'thus', 'so', 'accordingly',' therefore', 'consequently', 'because of that', ' as a result (of that)', ' in consequence (of that)', and they may combine with initial 'and'. They suggest that unless following 'and', 'so' occurs initially. 'Yet' and 'thus' occurs either initially or at least in the first part. Causal Relations may show result, reason, or purpose. Some connectives showing reason are 'on account of this' and 'for this reason'. 'As a result (of this)', 'in consequence (of this)', 'arising out of this' show result, and 'with this intention', 'with this in mind', 'for this purpose', 'to this end' are some of the connectives that show purpose.

The Causal Relation may also be used in the reversed form i.e., the presupposing sentence expresses the cause. Halliday & Hasan (1976) claim that '*b*, because *a*' is more frequent than 'because *a, b*'. 'For' and 'because' are the two most frequently used connectives in this sense.

The Causal Relation can also be in conditional type. In other words, the meaning of this type of Causal Relation is 'under these circumstances'. It can be shown as 'possibly *a*;

if so, then *b*'. Connectives such as 'in that case', 'in such an event', 'then', ' that being the case' are some examples of the connectives used to indicate this relation. When the polarity is negative, the meaning of the conditional is 'under other circumstances', and 'otherwise' can be used to show this relation.

The last type of Causal Relation is the respective type. The meaning of this relation is 'if we have now reached this point in the discourse'. Some connectives used in this sense are: 'in other respects', ' aside/apart from this', and 'otherwise'.

> 9. *One factor is the level of taxation of personal incomes.* **With regard to** *this question, the impressions current among members of the public are often very far removed from the truth.* (Halliday & Hasan 1976, p. 260)

2.1.1.4. Temporal relations

Halliday & Hasan (1976) states that the relation between two successive sentences may be sequence in time i.e., the one is subsequent to the other. In the temporal simple relation, the external temporal relation is paralleled by the sequence of the sentences themselves in that the first sentence refers to the first event and the second sentence refers to a later event. This relation is expressed by using connectives such as 'then', 'and then',' next', 'afterwards', 'after that', 'subsequently'. There may also be cases where the second sentence is related to the first sentence through an indication that it is previous or simultaneous in time. 'Before that' and 'previously' can be used in the sense of 'previous' and 'at the same time', 'simultaneously', 'then' can be used in the sense of 'simultaneous'.

Another type of Temporal Relation is conclusive. Connectives generally used in this sense are 'at last', 'finally', 'in the end', 'eventually'. They mark the end of some process or series of processes.

> 10. *All this time the Guard was looking at her, first through a telescope, then through a microscope, and through an opera-glass.* **At last** *he said 'You're travelling the wrong way,' and shut up the window and went away.* (Halliday & Hasan, 1976, p. 263)

The Temporal Relations can also be correlative. In this case, a cataphoric time expression in one sentence anticipates the anaphoric one that is to follow. 'At first', 'first', ' first of all', 'to begin with' are the typical cataphoric expressions, and they are followed by expressions such as 'next', ' second', 'finally' or 'then' as in the following example:

11. *Obrecht subjects his cantus firmus to the most abstruse manipulations. **First**, he extracts all the longs from the tune, and strings them together in succession; **then** he does the same with the breves, and **finally** with the semibreves. He **then** reverses this procedure, starting with the shorter values first.* (Halliday & Hasan, 1976, p. 263)

Another type of Temporal Relation is Here and Now. In this case, the connective relates what is being said to the particular stage which the communication process has reached. Examples of connectives showing this type of relation are: 'up to this point', 'hitherto', 'up to now', 'here', 'at this point', 'hereunder', 'henceforward', ' from now on'.

12. *The Middle Ages have become the Renaissance, and a new world has come into being: our world. In what way is it 'our world'? **At this point** we run into some difficulty.*(Halliday & Hasan, 1976, p. 264).

Halliday & Hasan (1976) considers Summary Relations as Temporal Relations. The connectives used to show this relation have either a culminative sense e.g., 'in short', 'in a word', ' to put it briefly', ' to sum up', or 'to return to the point' sense such as 'anyway' and 'to resume'.

2.1.2. Rudolph (1988)

Connective expressions and conjunctions are among the constituting elements of text cohesion. According to Rudolph (1988), the term connection refers to the process of connecting two or more entities, and to the result of this process, the connected entities. According to her, coherence is the connection in the mental representation attributed to a text. Rudolph states that the speaker is entirely free whether or not to choose a connective whereas "things are different from hearer's point of view because understanding an entire text requires a certain amount of cognitive ability and attention will decline inasmuch as the text loses attractively. The hearer wants to know what sort

of relationships the speaker attributes to the facts (Rudolph, 1988). Similar to Halliday & Hassan (1976), Rudolph (1988) describes the hierarchy of connection in four categories as follows stating the two propositions as *A and B:*

The connection *A+B* shows that the two propositions are closely linked in that the second proposition offers information that has not been given by the first proposition.

The connection *A-B* means that the two propositions indicate facts that are not well matched, and the second proposition is in contrast to or questioning the information given by the first proposition.

The connection *A,B* refers to the temporal sequence of the two propositions.

The connection *A→B* indicates the connection of causality.

In other words,

   I.   *A+B* Connection of addition; concomitance of *A* and *B*; equivalence hierarchy; AND-relation; description relation; summation

   II.   *A-B* Connection of contrast; delimitation of *A* from *B*; difference hierarchy; BUT-relation; adversative relation

   III. *A,B* Connection of time; succession of *A* and *B*; temporal hierarchy; THEN-relation; time-and-space-relation

   IV.   *A→B* Connection of causality; *A* is the cause of the effect *B*; asymmetric causal hierarchy; BECAUSE-relation; causality relation (Rudolph, 1988).

2.1.3. Fahnestock (1983)

Fahnestock (1983) classifies coherence relations as continuative and discontinuative relations. The continuative-discontinuative distinction refers to positive/negative propositions and the expectations they generate in the readers' mind during text processing. Adversative relations are discontinuative, whereas Additive, Causal, and Temporal Relations are mainly continuative.

2.1.3.1. Continuative relations

Continuative relations fulfill the expectation or represent normal expectation in the readers' mind. These relations and the connectives that show those relations are as follows:

Sequence ('then', 'next'), Restatement ('that is', 'in other words', 'in short'), Exemplification ('for example', 'for instance', 'thus'), premise ('because', 'since', 'for'), conclusion ('therefore', 'hence', 'so', 'consequently', 'thus', 'then'), Similarity ('likewise', 'similarly'), Addition ('and', 'also', 'moreover', 'furthermore', 'in addition', 'too', 'finally', 'nor')

2.1.3.2. Discontinuative relations

The discontinuatives are less expected from the readers; they are often surprising and less readily comprehended by the reader. These relations and the connectives that show those relations are as follows:

Anomalous Sequence ('earlier', 'much later', 'meanwhile'), Replacement ('rather', 'instead'), Exception, Concession ('even though', 'although', 'though', 'granted', 'of course'), Denied Implication ('nevertheless', 'still'), Contrast ('on the other hand', 'on the contrary', 'conversely'), Alternation ('or', 'otherwise')

2.1.3.3. Marked and unmarked relations

Fahnestock (1983) regards the relations explicitly stated by using connectives as marked and where the connective is not used as unmarked. In the sentence below, the relation is marked because it is explicitly stated by using the connective 'because'.

13. *Jacob Bronowski and a colleague wrote a scientific paper denying the significance of Washoe's [a chimpanzee's] use of language **because**, in the limited data available to Bronowski, Washoe neither inquired nor negated.* (Fahnestock, 1983 p.409)

The relation in the sentence below is unmarked since no connective is used to indicate it.

14. *It is very difficult to evolve by altering the deep fabric of life; any change there is likely to be lethal*. (Fahnestock, 1983 p.409)

2.1.4 Kehler (2002)

Kehler (2002) states that "…the need to establish coherence is basic to our natural language understanding capacity" The relation categories presented by Kehler (2002, 2004) arises from a fundamental cognitive distinction, which was first stated by David Hume (1978), and that Hume's principles could be used as a basis for the categorization of coherence relations was first proposed by Hobbs (1990, pp. 101-102). Kehler (2002, 2004) also argues for such a categorization.

Kehler explains coherence relationships under three different categories i.e., cause-effect, resemblance, and contiguity.

2.1.4.1. Cause-effect relations

The hearer or reader identifies a path of implication between the propositions P and Q denoted by the utterances heard or read in order to establish a Cause-Effect relation. Cause-effect relations have the following sub-categories :

Result ,Explanation,Violated expectation, Denial of preventer.

Result: Infer P from the assertion of S_1 and Q from the assertion of $S_2,$ where normally $P \to Q$.

> 15. *If someone wants to satisfy the right wing of the Republican party, **then** it is plausibly follows that that person would introduce an initiative to allow government funding for faith-based charitable organizations.* (Kehler, 2004, p.247)

Explanation: Infer P from the assertion S_1 and Q from the assertion of $S_2,$ normally $Q \to P$.

> 16. *George introduced an initiative to allow government funding for faith-based charitable organizations. He wanted to satisfy the right wing of his party.*(Kehler, 2004, p.247)

Violated expectation: Infer P from the assertion of S_1 and Q from the assertion of $S_2,$ where normally $P \to Q$.

17. *George wanted to satisfy the right wing of his party, **but** he refused to introduce an initiative to allow government funding for faith-based charitable organizations.*(Kehler, 2004, p.247)

Denial of preventer: Infer P from the assertion of S_1 and Q from the assertion of S_2, where normally $Q \rightarrow \neg P$.

18. *George refused to introduce an initiative to allow government funding for faith-based charitable organizations, **even though** he wanted to satisfy the right wing of his party.* (Kehler, 2004, p.248)

Table 1. Cause-effect relations (Kehler 2002, p.21)

Relation	Presuppose	Conjunctions
Result	$P \rightarrow Q$	and (as a result), therefore
Explanation	$Q \rightarrow P$	Because
Violated Expectation	$P \rightarrow \neg Q$	But
Denial of Preventer	$Q \rightarrow \neg P$	even though, despite

2.1.4.2. Resemblance relations

Resemblance requires that commonalities and contrasts among corresponding sets of parallel relations and entities be recognized, using operations based on comparison, analogy, and generalization. The sub-categories of the resemblance relations are Parallel, Contrast (ContrastI and II), Exemplification, Generalization, Exception (Exception I and II), and Elaboration.

Parallel: Infer $p(a_1, a_2, \dots)$ from the assertion of S_1 and $p(b_1, b_2, \dots)$ from the assertion of S_2, where some vector of sets of properties $\vec{q}$, $q_i(a_i)$ and $q_i(b_i)$ for all i.

Kehler states that " the phrase 'vector of sets of properties' simply means that for each I, there is a set of properties q_i representing the similarities among the corresponding pair of arguments a_i and b_i. The example below is coherent because similar properties are attributed to parallel entities Dick and George.

19. *Dick Gephardt organized rallies for Gore, **and** Tom Daschle distributed pamphlets for him.*(Kehler 2002, p. 16)

Contrast: The contrast relation has two versions: Either the relation inferred is contrasted or a set of properties of one or more of the sets of parallel entities is contrasted.

a) Infer $p(a_1, a_2, \ldots)$ from the assertion of S_1 and $\neg p(b_1, b_2, \ldots)$ from the assertion of S_2, where for some vector of sets of properties $\overrightarrow{q}$, $q_i(a_i)$ and $q_i(b_i)$ for all i.

> 20. *Dick supports a raise in defense spending,* ***but*** *George opposes it.*(Kehler 2004, p.248)

b) Infer $p(a_1, a_2, \ldots)$ from the assertion of S_1 and $p(b_1, b_2, \ldots)$ from the assertion of S_2, where for some vector of sets of properties $\overrightarrow{q}$, $q_i(a_i)$ and $\neg q_i(b_i)$ for some i.

> 21. *Dick supports a raise in defense spending,* ***but*** *George wants a raise in education investment.* (Kehler 2004, p.248)

Exemplification: Kehler states that "the exemplification relation holds a general statement followed by an example of it" (Kehler, 2004).

Infer $p(a_1, a_2, \ldots)$ from the assertion of S_1 and $p(b_1, b_2, \ldots)$ from the assertion of S_2, where b_i is a member or subset of a_1 for some i.

> 22. *Republican presidents often seek to put limits on federal funding of abortion. In his first week of office, George W. Bush signed a ban on contributing money to international agencies which offer abortion as one of their services.* (Kehler 2004, p.249)

Generalization: Infer $p(a_1, a_2, \ldots)$ from the assertion of S_1 and $p(b_1, b_2, \ldots)$ from the assertion of S_2, where a_1 is a member or subset of b_i for some i.

In other words, the Generalization is similar to Exemplification, but the ordering of the clauses is reversed.

> 23. *In his first week of office, George W. Bush signed a ban on contributing money to international agencies which offer abortion as one of their services.*

Republican presidents often seek to put limits on federal funding of abortion. (Kehler 2004, p.249)

Exception: Negation can be added to derive two definitions for Exception from the Exemplification and Generalization relations, depending on the clause order.

a) Infer $p(a_1, a_2, \ldots)$ from the assertion of S_1 and $\neg\, p(b_1, b_2, \ldots)$ from the assertion of S_2, where b_1 is a member or subset of a_1 for some i.

> 24. *Republican presidents do not usually put limits on federal funding of abortion immediately upon entering office. **Nonetheless, in his first week, George W. Bush signed a ban on contributing money to international agencies which offer abortion as one of their services.**(Kehler 2004, p.249)*

b) Infer $p(a_1, a_2, \ldots)$ from the assertion of S_1 and $\neg\, p(b_1, b_2, \ldots)$ from the assertion of S_2, where a_1 is a member or subset of b_1 for some i.

> 25. *In his first week, George W. Bush signed a ban on contributing money to international agencies which offer abortion as one of their services. **Nonetheless**, Republican presidents do not usually put limits on federal funding of abortion immediately upon entering office.(Kehler 2004, p.249)*

Elaboration: Kehler defines Elaboration relation as the limiting case of Parallel, in which the two eventualities described are in fact the same.

Infer $p(a_1, a_2, \ldots)$ from the assertions of S_1 and S_2.

> 26. *The new Republican president took a swipe at abortion in his first week of office. In a White House ceremony yesterday, George W. Bush signed an executive order banning support to international agencies which offer abortion as one of their services.(Kehler 2004, p.250)*

Table 2. Resemblance relations (Kehler 2002, p.19)

Relation	Constraints	Conjunctions
Paralel	$p(p_1)$ and $p(p_2)$, $q_i(a_i)$ and $q_i(b_i)$	And
Contrast	$p(p_1)$ and $\neg p(p_2)$, $q_i(a_i)$ and $q_i(b_i)$ $p(p_1)$ and $p(p_2)$, $q_i(a_i)$ and $\neg q_i(b_i)$	But
Exemplification	$p(p_1)$ and $p(p_2)$; $q_i(a_i) \subset q_i(b_i)$	for example
Generalization	$p(p_1)$ and $p(p_2)$; $q_i(b_i) \subset q_i(a_i)$	in general
Exception	$p(p_1)$ and $\neg p(p_2)$; $q_i(a_i) \subset q_i(b_i)$ $p(p_1)$ and $\neg p(p_2)$; $q_i(b_i) \subset q_i(a_i)$	however nonetheless
Elaboration	$p_1 = p_2$, $a_i = b_i$	that is

2.1.4.3. Contiguity relations

Kehler places only one relation, Occasion in this category. It has two sub- categories as Occasion I and Occasion II.

Occasion I: Infer a change of state for a system of entities from S_1, inferring the final state for this system from S_2.

Occasion II: Infer a change of state for a system of entities from S_2, inferring the initial state for this system from S_1 .

> 27. *George picked up the speech. He began to read.* (Kehler 2002, p.22)

Kehler (2002) states that "what makes for a coherent Occasion is based on knowledge gained from human experience about how eventualities can enable other eventualities in the world and the granularity with which people conceptualize such eventualities and change resulting from them."

Samet and Schank (1984) explain the encoding of such knowledge through the 'scripts approach'. Scripts are defined as data structures that encode representations of a set of event-types that typically co-occur in a relatively predictable order. An example is given below to explain the scripts approach.

> 28. *Larry went into a restaurant. The baked salmon sounded good **and** he ordered it.* (Samet and Schank, 1984)

Kehler (2002) states that there is no one-to-one relationship between coherence relations and connectives. "On the other hand, conjunctions do typically constrain the type of relation that can be inferred" (Kehler, 2002). The meanings of the conjunction *and,* that are commonly cited in the literature, are shown in the sentences below:

> *29a. Bill went to the movies, **and** Hillary went to the store.* (Parallel)
> *b. Bill went to the movies, **and (then)** he came home.* (Occasion)
> *c. Bill went to the movies, **and (as a result)** Hillary got upset.* (Result)

The relations in the sentences above are the canonical exemplars of the categories of Resemblance, Contiguity, and Cause-Effect respectively. Similarly, the meaning of the conjunction *but* is consistent with both Resemblance and Cause-Effect, as seen in the following examples :

> *30a. Bill went to the movies, **but** Hillary went to the store.* (Contrast)
> *b.Bill went to the movies, **but (nevertheless)** Hillary didn't get upset.* (Violated Expectation)

Kehler (2002) states that when applying the constraints dictated by the relation definitions we will have to rely on our intuitions and paraphrase tests using conjunctions and other indicator words help us to get an indication of the relation.

> Of course, simple connectives do not always constrain the possibilities to a single coherence relation; we have already seen that the meaning of 'and', for instance, is compatible with the Parallel, Occasion, and Result relations. We can instead use more complex connectives that constrain the possible relations to a single instance. For instance, if the clauses are (or can be) conjoined by 'and', then an ability to paraphrase with connectives such as 'and similarly', 'and likewise' or 'and...too' signals Parallel, whereas tests using conjunctions and other indicator words. If the clauses are (or can be) conjoined by 'and', then an ability to paraphrase with 'and therefore' or 'and as a result' signals Result... Similarly, the conjunction 'but' will generally signal a Contrast relation when it can be paraphrased with 'but in contrast', whereas it signals a Violated Expectation relation when it can be paraphrased with 'but surprisingly' or 'but counter to expectation'. (Kehler 2002, pp.32-33)

According to Kehler (2002), we do not merely interpret each utterance within a discourse to comprehend it. What we do is to try to discover how these utterances are related to one another. The examples below from Kehler (2002) may be helpful to understand the concept of coherence according to Kehler.

> 31. *John took a train from Paris to Istanbul. He has family there*.(Kehler 2002, p.2)

In this situation, "we will likely infer that John's having family in Istanbul is the reason for his taking a train there. While this inference is not explicitly stated, it is a natural one to draw under the assumption that the utterances bear some relationship to each other, that is, that the discourse is coherent." (Kehler 2002, p.2)

> 32. *? John took a train from Paris to Istanbul. He likes spinach.* (Hobbs 1979 cited in Kehler, 2002)

This version can be found odd by the reader, because the reader asks the following question: "What does going to Istanbul have to do with liking spinach?" This means the reader is questioning the coherence of the passage. In such a case, the reader may invent scenarios to find out the relationship between utterances as Hobbs (1979 cited in Kehler, 2002) stated. For example, the reader may think that the spinach crop failed in France, and Turkey is the nearest country where spinach is available. Such an attempt shows that establishing coherence is essential for our language understanding. Kehler (2002) calls the process of determining the coherence of a discourse *coherence establishment*. The establishment of coherence allows us to communicate and understand more meaning than the meaning of each individual sentence.

Kehler (2004) states that "discourses are not simply arbitrary collections of utterances. A felicitous discourse must instead meet a rather strong criterion, that of being coherent" (Kehler, 2004). The need to establish coherence is central to discourse understanding. Readers or hearers try to recover the coherence structure of utterances to compute discourse meaning just as they try to recover the syntactic structure of a string of words in order to compute sentence meaning.

2.1.5.1. Rhetorical Structure Theory (RST)

Rhetorical Structure Theory (RST) is a descriptive linguistics approach about how text works. It is stated that the main goal of RST is the development of a theory that could aid in automatic generation of texts. It is also a general theory of how text works, and how coherence in text is achieved.

> RST addresses text organization by means of relations that hold between parts of a text. It explains coherence by postulating a hierarchical, connected structure of texts, in which every part of a text has a role, a function to play, with respect to other parts in the text. The notion of text coherence through text relations is widely accepted, and the relations have also been called *coherence relations, discourse relations or conjunctive relations* in the literature. (Taboada & Mann, 2006).

According to RST, there are two types of units i.e., nuclei and satellites. Nuclei are the most important parts of a text. As for satellites, they contribute to the nuclei and are secondary. What is essential for the writer is the nuclei rather than the satellite. If the satellites are deleted in a text, the text is still comprehensible to a certain extent. On the other hand, if the nucleus is deleted, the satellite cannot be comprehensible. Use of connectives is important in text processing particularly determining the relation between nucleus and satellite. Sometimes, more text processing may be necessary until the scope of certain text pans is clear. There may be scope problem in sentences starting with adverbials such as 'On the other hand' because the end of the span could be that sentence or a larger group of sentences (Reitter & Stede, 2003).

One set of RST relations are as follows:

Presentational Relations: Antithesis, Background, Concession, Enablement, Evidence, Justify, Motivation, Preparation

Subject Matter Relations: Circumstance, Condition, Elaboration, Evaluation, Interpretation, Means, Non-volitional cause, Non-volitional Result, Otherwise, Purpose, Restatement, Solutionhood, Summary, Unconditional, Unless, Volitional Cause, Volitional Result.

Multinuclear Relations: Conjunction, Contrast, Disjunction, Joint, List, Multinuclear Restatement, Sequence.

According to RST, signaling is not confined to discourse connectives. Signals other than connectives such as mood and modality in the clause are also present. For instance, a question (interrogative mood) may signal Solutionhood relation and non-finite clauses may indicate Circumstance relation.(Taboada, 2004b) "Although the presence of a relation is often indicated by lexical or non-lexical cues, relations seem to be present even without clear signaling".(Taboada & Mann, 2006, p.432)

2.2. Connectives

2.2.1. What is a connective?

Logical connectives, which are also referred to as conjunctions (Halliday & Hasan, 1976), logical connectors (Celce-Murcia & Larsen-Freeman, 1983), cohesive devices (Schiffrin, 1987) or discourse markers (Fraser, 1999) are defined as "words or phrases whose function is to show some logical relationship between two or more basic sentences or –in some cases- between a basic sentence and a noun phrase" (Celce-Murcia & Larsen-Freeman, 1983). Cohen (1984) mentions two different functions of discourse connectives in that connectives enable the reader to recognize coherence relations faster and allows the reader to recognize coherence relations which could not be inferred in the absence of a connective. According to Hutchinson (2005), this means that the use of a connective by the writer is optional in some cases, whereas in others it is a must. Brown and Yule (1983), state that a familiar type of explicitly marked coherence relationship in texts is shown by formal markers. Formal markers e.g., 'and', 'but', 'then', 'so' help the reader to relate what is about to be said to what has been said before.

Webber et.al. (2003) take discourse connectives as based on local coherence and hence deal with intersentential and intersentential relations. They state that discourse relations can be lexicalized in at least two ways- with subordinate/coordinate conjunctions and with adverbial phrases, and they give the following examples:

Subordinate conjunction:

> 33. **Although** *Mr. Hastings had been acquitted by a jury, lawmakers handling the prosecution in Congress had argued that the purpose of impeachment isn't to punish an individual.*

Coordinate conjunction:

> 34. *The Berkley police don't have any leads **but** doubt the crime was driven by a passion for sweets.*

Adverbial connective:

> 35. *No price for the new shares has been set. **Instead**, the companies will leave it up to the marketplace to decide.*

They call subordinate and coordinate conjunctions *structural connectives*. In the sentence below, the structural connective *although* below expresses a concessive relation between the two eventualities, P=RARELY EAT (SALLY, MEAT) and Q=ENJOYS (SALLY; CHEESEBURGER).

> 36. **Although** *Sally rarely eats meat, she enjoys an occasional bacon cheeseburger.* (Webber et. al., 2003)

These types of connectives "can be analyzed as encoding predicate-argument relations whose arguments derive from the interpretation of discourse units" (Webber et.al., 2003).

According to Webber (2004), lexical items that can serve as discourse connectives can be used in different ways (e.g., 'instead' can serve as an NP post-modifier-"an apple instead of pear"; 'and' can serve as an NP conjunction). Therefore, lexical features alone are not sufficient to determine whether a particular token is actually serving as a discourse connective in particular context.

As for adverbial connectives, they differ from structural connectives in that they only get one of their two arguments structurally- the one they get from their matrix clause. They obtain the other argument from the discourse context and hence they behave like common discourse anaphors -pronouns and NPs. This can be called as 'anaphoricity', which refers to the "use of 'discourse connecting' devices such as anaphoric reference

and presupposition by adverb and prepositional forms to retrieve objects at the discourse level, just as they are employed for the retrieval of objects at the clause level." (Forbes, 2003) Connectives used in this way are also called *anaphoric or presuppositional connectives.*

Researchers (Halliday & Hasan 1976; Schiffrin 1987; Moser & Moore, 1995; Kehler, 2002, among others) emphasize that a connective may indicate more than one relation. They point out that since the correspondence between connectives and relations is not one-to-one, the writer has to decide which connective to use to signal a given coherence relation. For instance, both 'because' and 'seeing as' can be used in the example below:

> 37. **Seeing as/because** *we've got nothing but circumstantial evidence, it's going to be difficult to get a conviction.* (Knott, 1996, p. 177)

Stating that the concepts of lexical similarity and substitutability are very important in psychology, artificial intelligence and computational linguistics, researchers such as Knott (1996) and Hutchinson (2005) focused on substitutability of connectives. A Test for Substitutability for connectives was designed by Knott (1996) to find out if two discourse connectives can be used in order to signal the same relation. The test can be summarized as follows (Knott, 1996):

1. Take an instance of a discourse connective in a corpus. Imagine you are the writer who produced this text, but that you need to choose an alternative connective.

2. Remove the connective from the text, and insert another connective in its place.

3. If the new connective achieves the same discourse goals as the original one, it is considered substitutable in this context.

In the sentences below, 'because' and 'seeing as' are substitutable for each other in the first sentence, whereas those two connectives are not substitutable for each other in the second sentence.

38. ***Seeing as/because*** *we've got nothing but circumstantial evidence, it's going to be difficult to get a conviction.* (Knott 1996, p. 177)

39. *It's a fairly good piece of work,* ***seeing as/#because*** *you have been under a lot of pressure recently.* (Knott 1996, p. 177)

According to Knott (1996), there are four possible substitutability relationships that can hold between a pair of connectives w1 and w2.

• w1 is a Synonym of w2 if w1 can always be substituted for w2, and vice versa.

• w1 and w2 are Exclusive if neither can ever be substituted for the other.

• w1 is a Hyponym of w2 if w2 can always be substituted for w1, but not vice versa.

• w1 and w2 are Contingently Substitutable if each can sometimes, but not always, be substituted for the other.

a) w1 and w2 are synonyms

b) w1 is a hyponym of w2

c) w1 and w2 are contingently

d) w1 and w2 are exclusive
substitutable

Figure 1. Substitutability relationships between a pair of connectives (Knott, 1996)

Knott gives the following examples for the mentioned relationships: 'given that' and 'seeing as' are synonyms, 'because' and 'seeing as' are contingently substitutable, 'on the grounds that' is a hyponym of 'because', and 'because' and 'now that' are exclusive. Hutchinson (2005) states that predicting whether one connective can either always, sometimes or never be substituted are important for cases where paraphrasing one discourse connective using another is needed for example while simplifying a text.

Knott (1996) asserts that "if people really do use coherence relations when processing texts, then it is likely that languages will develop ways of signaling these relations explicitly. Discourse connectives thus provide a means of studying coherence relations empirically".

Maat and Sanders (2003) compare and classify connective meanings in terms of discourse relations they may express and they make a distinction between semantic and pragmatic levels of relation. According to them, 'Semantic' relations hold between the propositional content of the two related discourse segments, i.e., between their locutionary meanings whereas 'pragmatic relations', involve the illocutionary meaning of one or both of the related segments. The following examples can be used to understand this clearly:

> 40. *The neighbours left for Paris last Friday.* **So** *they are not at home.*
> 41. *The lights in the neighbors' living room are out.* **So** *they are not at home.*

In example (1), the relation is semantic because two events in the world are connected. In other words, the cause in the first segment leads to the fact in the second segment. As for the example (2), the relation is pragmatic because the second segment is a conclusion derived from evidence in the first segment; the description in the first segment leads to the conclusion or inference in the second segment. In other words, there is not any Causal Relation between two events in the world i.e., "it is not because the lights are out that the neighbours are not at home" (Maat & Sanders, 2003). Similarly, Lakoff (1971) states two different sources of contrastive knowledge. One of them is a semantic contrast between two lexical items.

> 42. *John is tall* **but** *Bill is short.*

The other is a pragmatic contrast between the expectations of the speaker/hearer and the actuality.

> 43. *Mary is poor* **but** *happy.*

In this example, there is no lexical contrast between 'poor' and 'happy', but people do not expect poor people to be happy.

2.2.2. Connective-discourse marker distinction

Although logical connectives are also called "discourse markers" by some researchers like Fraser (1999), according to some others, for example to Fuller (2003), they are not exactly the same. Fuller (2003) states that two criteria can be used to determine whether a particle is a discourse marker or not. One of those criteria is that the semantic relationship between the elements they connect does not change if the discourse marker is removed from the utterance, which means that the truth condition remains the same. The second criterion is that the grammaticality of the utterance is still intact without the discourse marker. 'Well', 'oh', 'y'know', and 'like' are some examples of discourse markers. Similarly, Fraser (1999) and Schifrin (1987) mean different things by the term 'discourse markers'. Fraser (1999) excludes many segment-initial expressions that do not signal a relationship between the adjacent discourse segments such as 'Frankly', 'Obviously', 'Stupidly'.

44. A:Harry is old enough to drink. B: **Frankly**, I don't think he should.
45. I want a drink tonight. **Obviously**, I'm old enough.
46. A:We should leave fairly soon now. B: **Stupidly**, I lost the key so we can't.

Those are not connectives in that they do not connect two sentences, but they are modality adverbs. They signal a comment or a separate message that relates to the following segment. Fraser calls them 'commentary pragmatic markers'. Pause markers such as 'Hum...', 'Well...', 'Oh...', 'Ahh...' and focus particles such as 'even', 'only', 'just' as shown below are excluded by Fraser (1999).

47. The exam was easy. **Even** John passed.
48. They are fairly restrictive there. **Only** poor Republicans are allowed in.
49. What am I going to do now? **Well**... I really don't know.
50. A: Do you know the answer? B: **Ah**..., I will have to think about it.

Fraser (1999) excludes also vocatives such as 'Oh!' as opposed to Schiffrin (1987). The reason is that they do not signal a relationship between segments.

> *51. A:The Chicago Bulls won again tonight. B: **Oh**!*

Similarly, according to Maat & Sanders (2003), connectives are different from discourse markers in that discourse markers do not affect the truth conditions of the sentence and they are loosely connected to the sentence in terms of syntactic structure such as 'well', whereas "connectives maybe either truth-functional or non-truth-functional and may be tightly integrated in the syntactic structure of the sentence". Maat & Sanders (2003) describe connectives as "one-word items or fixed word combinations that express the relation between clauses, sentences, or utterances in the discourse of a particular speaker. More generally, a connective indicates how its host utterance is relevant to the context". For non-truth functional conjunctions such as 'so' the categories of discourse markers and connectives overlap.

2.3. Punctuation Rules for Connectives

Use of punctuation patterns across the three types of connectives is explained below according to Celce-Murcia & Larsen-Freeman (1999):

2.3.1. Subordinate conjunction (Adverbial Subordinators)

The two clause sequence of main clause + subordinate clause does not require punctuation.

> *52. He could not steer the boat out of the storm **although** he tried every means possible.*

A comma is used between the clauses when the combination is subordinate clause + main clause.

> *53. **Although** he tried every means possible, he could not steer the boat out of the storm.*

2.3.2. Coordinate conjunction (Coordinating Conjunction)

Coordinated clauses are punctuated in three different ways: Full stop before them, commas before them, and no punctuation.

> 54. *They had just arrived at their vacation retreat.* **But** *already they wanted to leave.*
> 55. *They had just arrived at their vacation retreat,* **but** *already they wanted to leave.*
> 56. *They had just arrived at their vacation retreat* **but** *already they wanted to leave.*

2.3.3. Adverbial connective (Conjunctive Adverbials)

In general, a full stop or semicolon is used before conjunctive adverbials. Yet, whether or not to use a comma depends on the conjunctive adverbial used. For instance, 'Nevertheless', 'Thus','Rather' are not followed by a comma.

> 57. *He tried every means possible.* **However,** *he could not steer the boat out of the storm.*
> 58. *He tried every means possible***; however,** *he could not steer the boat out of the storm.*
> 59. *He tried every means possible.* **Nevertheless** *he could not steer the boat out of the storm.*

A conjunctive adverbial can be bracketed in commas when it is in the middle of a clause.

> 60. *He tried every means possible; he could not***, however,** *steer the boat out of the storm.*

If the conjunctive adverbial is at the end of the sentence, punctuation is not necessary except for 'However'.

> 61. *We could invite John. He's too busy* **though**.
> 62. *He tried every means possible. He could not steer the boat out of the storm***, however**.

2.4. Research on Connectives in the Field of Linguistics

Research on connectives in the field of linguistics can be grouped under three headings:

1. Effect of connectives on recall

2. Effect of connectives on sentence processing & comprehension

3. Taxonomy/Substitutability of the connectives

2.4.1. Effect of connectives on recall

Steffensen (1981) investigated the interactive effects of both cohesive ties and cultural background knowledge on readers' processing of short prose texts. Readers were asked to write their recalls of the passages after reading comparable passages from both their native culture and from a foreign culture. The study showed that adversative and causal connectives elements were recalled better by readers from the passage of their own native culture than from the passage of the foreign culture. The findings of the study show that when there is a mismatch in cultural background knowledge between the reader and that assumed by the text, there will be a loss of textual cohesion.

Millis, Graesser & Haberlandt (1993) investigated the effect of connectives on memory for expository texts using psychology undergraduate students in Memphis State University. Participants were asked to read four expository texts and later recall passages with either no connectives, temporal connectives (before/and then), causal connectives (which causes/which enabled), or intentional connectives (in order that/ so that). Participants of the study were asked to read the passages in 90 seconds and informed that they would be asked questions later. After the completion of the reading task, participants were given the titles of the paragraphs as cues and they were asked to recall and write down each of the paragraphs. The study showed that the recall for passages without connectives was higher than the recall for passages with connectives. In addition, different participants were asked to read six passages one at a time on a personal computer. Participants were asked to read the passages carefully because they would be asked questions about the passages. Each subject read two passages without connectives, two passages with appropriate connectives, and two passages containing inappropriate connectives. The study revealed that recall for passages without connectives was better than recall for passages with either appropriate or inappropriate

connectives. It was also found that temporal connectives led to lower recall than causal connectives.

2.4.2. Effect of connectives on sentence processing & comprehension

Nippold et. al., (1992) investigated how logical connectives could be processed by English native speakers. The subjects were 120 adolescents and young adults. The native participants were divided into four groups and they were asked to perform reading and writing tasks including logical connectives. The study indicated that the older age group outperformed the younger age group on both the reading and writing tasks. The study revealed that 'therefore' and 'however' were easy whereas 'moreover' and 'conversely' are difficult for all the age groups. Nippold et.al., (1992) asserted that the reason for this difference is the different frequencies of the logical connectives.

Millis & Just (1994) investigated the effect of connectives on sentence comprehension. In the study, participants were asked to read clauses that were either linked or not linked by a connective and they were asked to judge whether a probe word had been mentioned in one of the clauses. The study showed that the presence of a connective 'because' increased the activation level of the first clause when placed between two clauses of a sentence. It was found that the recognition probe times to the verb from the first statement were faster when a connective was used to join the statements than when no connective was used. The study revealed the same effect for the connective 'although', and the presence of a connective decreased the reading time for the second statement while helping understanding the whole sentence in a shorter time as a whole. It was also shown that connectives were effective in answering comprehension questions faster and more accurately.

Murray (1997) argues that "not all logical connectives affect sentence processing and integration in the same manner". He claims that "logical connectives serve as explicit markers of continuity and discontinuity in a discourse" (p.229). He states that continuity (Additive and Causal Relations) and discontinuity (Adversative Relation) should facilitate L1 reading at different degrees in terms of memory integration and reading time. In his study, participants were asked to generate sentences to follow a stimulus

sentence. They also read coherent sentence pairs that contained inappropriately placed additive, causal, or adversative connectives. The sentence that the participants were asked to continue began with an additive, causal, or adversative connective or it did not include a connective at all. The study revealed that sentences made after the additive or causal connectives mentioned text events continuous with the text whereas sentences made in response to adversative connectives lead to discontinuous text events. The study showed that adversative connectives required longer reading time on the sentence coming after the connective.

In Smith (1999) study, students with English language backgrounds and Spanish language backgrounds read two sentences shown on a computer and they were asked to judge if they made sense. The participants of the study were forty-three ninth-grade students at the Southern California High School. The number of native English language background and native Spanish language background students was equal in the study. Two types of connectives i.e., lexical and clausal connectives were used in the study. The lexical connectives were 'therefore' and 'otherwise', and they were alternated with clausal connectives 'if so' and 'if not', which are their equivalent clausal connectives. Examples sentences were as follows:

63. Birds have wings. Therefore, they can fly.
64. Turtles don't have wings. Therefore, they can't fly.
65. Jack may buy a bike. Otherwise, he doesn't have enough money.
66. Jack may not buy a bike. Otherwise, he'll buy a Schwinn.

The participants were asked to read a sentence pair followed by a sensibleness question on a computer screen. The two sentences were combined by one of the following connectives: 'therefore', 'otherwise', 'if so', and 'if not'. When they comprehended the sentence, they tapped the space bar and then the continuation sentence appeared. After reading the continuation sentence, they tapped the space bar and the sensibleness question appeared on the screen. They pressed *j* or *k* to indicate their judgment of sensibleness. It was stated that the sensibility judgments indicate the students' interpretation of the connectives.

The study showed that reading and judgments proceeded fluently with 'therefore'. On the other hand, the reading time for continuations with 'otherwise' needed a great deal of effort. The study also revealed that continuations with lexical connectives are read faster than those with clausal connectives. Finally, the study showed that different language backgrounds caused differences in performance on reading times and judgments.

Sander and Noordman (2000) investigated the effect of relation type and explicit marking on reading tasks. They hypothesized that different relations would lead to different representations of the text. The study showed that the processing time of the readers was shorter, and that verification and recall were better when the relation was more complex (a problem-solution relation) than a simple Additive Relation. It is assumed that the reason was that more complex relations lead to richer representations. Another finding was that explicit marking of the relation lead to faster processing though it did not affect recall. They concluded that text processing relies on relations; different representations occur when the relations are different, and the effect is carried over time to recall.

Degand & Sanders (2002) investigated the effect of connectives or signaling phrases (e.g., this is caused by…, the solution to this problem is…) on expository text comprehension in L1 and L2. The participants of the study read expository texts in L1 and L2, and answered comprehension questions. The texts were manipulated with respect to the absence or presence of the linguistic markers, which are called implicit condition and explicit condition respectively. Dutch and French both functioned as L1 and L2 i.e., Dutch students read texts in their mother language and French, and Belgian students read the same texts in French and Dutch. The study showed that participants performed significantly better in their mother language than in their L2. Dutch speakers performed better than the French speakers in their L2. The implicit condition differed significantly from the explicit conditions whereas the explicit versions did not significantly differ from each other.

Guzman (2004) tested whether connectives facilitate the maintenance of local coherence by allowing readers to form expectations about the nature of the unfolding text. The participants of the experiment were forty native English speaking undergraduates at the State University of New York. In the study, the readers were instructed to write continuations for a series of short narratives. The passages had two versions as 'with connective' and 'without connective'. For some participants the final two sentences of the stories was followed by temporal connective words or phrases such as 'meanwhile', 'concurrently', 'simultaneously', 'at the same time' and for the other participants the connective was missing. The study revealed that connectives aid in the generation of reader expectations. Guzman stated that the presence of a connective seems to provide a guide to the reader about the type of forthcoming information, at least when specifically asked.

Soria (2005) investigated the constraints governing the use of connectives in oral and written discourse production and comprehension in two experiments. 72 pairs of discourse segments taken from written texts of various genres were identified manually. The examples chosen were two adjacent sentences connected by a cue phrase. Examples suggesting more than one possible coherence relation were avoided and whether the instances could be coherent even without connective was checked. The instances were classified by two annotators as belonging to one of the three kind of coherence relations i.e., additive, consequential, and contrastive. Then another version of the same examples was created by deleting all the original connectives.

In the study, ten participants, who were shortly instructed about the task to be performed and the meaning of the three categories of coherence relations, were asked to classify the examples according to the same taxonomy. Each subject had a corpus of 36 instances containing the original connective and 36 instances without connective. The degree of correctness of the answers was taken as a measure of comprehension of the relations. A relation was considered to be correctly inferred if the label chosen by the participants matched the gold standard i.e., the classifications of the annotators.
While analyzing the data, the annotators determined the number of cases where the relation between two segments was correctly inferred for each type of relation either

with connective or without connective. Where the relation was not correctly retrieved was classified as uncertain, and confusion when participants attributed the relation to a different class. The percentage of correct attribution of a coherence relation was considered as the measure of the degree of comprehension of that relation.

The data showed that comprehension declined when the connective was missing, which confirmed the hypothesis that connectives facilitates inferring the relation intended by the sender of the message. It was also found that the contrastive type showed the highest decline whereas the additive type showed the lowest decline in comprehension.

The second experiment investigated whether there is any significant difference between spoken and written language in terms of the kind of relations employed and lexical marking of the relations. In the experiment, 19 subjects were asked to tell a story depicted by a set of cartoons first in speaking, and then in writing. Results of the experiment showed that connectives are generally more frequent in speaking than in writing, and that their use changes depending on the different classes of relations, with contrastive relations almost always marked. The data show no significant difference between the spoken and written versions in terms of the type of relations used. It was found that most of the relations belong to the consequential and additive types for both oral and written modality. The study showed that contrastive relations were generally little employed both in spoken and in written language.

2.4.3. **Taxonomy and substitutability of the connectives**

Knott (1996) used two tests i.e., the test for cue phrases and the test for substitutability. The test for cue phrases was a test for connectives used to gather a corpus of connectives from 200 pages of naturally occurring texts. Over 200 cue phrases were assembled from it. Then, a test for substitutability was used and the corpus was organized into hierarchical taxonomy taking how they are substituted into consideration. The substitutability relation was categorized as: synonymous, exclusive, hyponym, contingently substitutable. The taxonomy indicates feature-based constructs as follows: source of coherence (semantic – pragmatic), anchor (cause- driven, result-driven), pattern of instantiation (unilateral-bilateral), focus of polarity (anchor-based-

counterpart-based), polarity (positive-negative), Presuppositionality (presuppose-non-presupposed), modal status (actual-hypothetical), rule type (causal-inductive).

Knott & Sanders (1998) investigated whether English and Dutch taxonomies of connectives resemble each other, and whether either taxonomy can be described using Sander et. al's parameters. To do this, they decided on a group of connectives to study. Then, using the substitutability test they investigated if the distinctions found in Sanders et. al could also be found in English and/or Dutch using the substitution methodology. For positive Causal Relations, subtle differences were found between English and Dutch taxonomies. For example, no connective in English corresponds precisely to 'doordat' or 'daardoor'. Another finding is that no English cue phrase having the combination of Semantic and Non-volitional characteristics exist. A cue phrase in Dutch which signals just these features has been found. The following interpretation was made from this finding: "that cue phrases in both languages are built up from the same primitives, even though they might not group these primitives in exactly the same way"(Knott & Sanders, 1998, p. 159) The study revealed that there might be systematic similarities between the two languages, but there were also differences in the exact meaning of literal translations.

Hutchinson (2005) conducted two experiments on the semantic similarity of discourse connectives. It was hypothesized that participants would rate pairs of synonymous connectives as more similar than other pairs of connectives, and they would rate pairs of exclusive connectives as less similar than other pairs of connectives. The experiments were limited to discourse connectives which syntactically conjoin clauses or take clausal complements. Forty-eight pairs of discourse connectives such that there were 12 pairs standing in each of the four substitutability relationships selected for the study. This was done by using the researcher's judgments and using the substitutability judgments made by Knott (1996). The participants of the study were forty native speakers of English. The participants were told that there were words and phrases that can connect sentences, and a number of examples of discourse connectives in context were given. Participants were asked to rate the "similarity in meaning" of pairs of connectives. Three example pairs, illustrating high, medium, and low similarity were

given such as when–while, after–before and because–whereas, respectively. An analysis of variance was conducted and Post-hoc Tukey tests revealed all differences between substitutability relationships to be significant (in each case p < 0.01), supporting the hypotheses mentioned above.

Degand et. al. (2006) presented their analysis on the use of connectives in the written productions of French-speaking learners of Dutch and Dutch-speaking learners of French. Narratives from the retelling of the scene "Alone and hungry" from the well-known Charlie Chaplin movie "Modern Times" were analyzed in the study. The analysis showed that L2 writers use more connectives than native writers and particularly they overused temporale, contrastive, and causal connectives.

2.5. Research in the Field of ELT

Research on connectives can be grouped under two headings:

1. Effect of connectives on reading comprehension
2. Use of connectives in written production

2.5.1. Effect of connectives on reading comprehension

Geva (1992) investigated whether and at what level of L2 proficiency adult L2 learners of English comprehend the meaning of conjunctions. The participants of the study were 100 immigrant or international students who attended one of two Canadian universities and who were also taking courses designed to upgrade their English. Firstly, students' oral proficiencies were rated on a 1-7 scale using a Foreign Service Institute (FSI) type instrument. The oral proficiency levels of the students were found to range from 2 to 5. One of the tasks was the intrasentential conjunction task. Participants completed a fill-in-the blank task including 30 multiple-choice items, 10 with 'because', 10 with 'although', and 10 with 'if'. In the task, the clause following the conjunction has been omitted and participants were asked to choose the option that best completes the sentence. There was also an intersentential conjunction task where 30-item sentence continuation task were involved. The third task was a discourse-level conjunction task. It was a multiple-choice rationale-deletion cloze test which included two 1-page,

college-level, expository texts from which the conjunctions have been deleted. Students were asked to choose the appropriate conjunctions out of four alternatives for each deleted conjunction. Finally, three one-page expository texts appeared in one of the three versions i.e., explicit (intact), implicit (conjunctions omitted), and highlighted (conjunctions printed in bold face). The texts were followed by four multiple-choice, high level comprehension questions based on logical relationships in the texts. Different students were given different combinations of those manipulated texts. Analyses of variance (ANOVA) showed that L2 students whose oral proficiencies were different differed from each other on the fill-in-the-blank task and academic text comprehension task, but the main effect of oral proficiency for sentence completion task was not significant. The study revealed that the three proficiency groups differed on the logical relationship comprehension at all discourse levels; as learners become more proficient in their oral language, their performance on intrasentential, intersentential, and discourse-level tasks gradually improved.

Uçku (1996) investigated in her masters study the effect of discourse markers on developing reading skills in English at intermediate level. She conducted her study at Doğuş Institute of Higher Education in Turkey. Two subject groups of different proficiencies i.e., one at intermediate and the other at upper intermediate levels were formed in the study. Each group had 45 participants. Two pairs of reading passages were used for each group of students and discourse markers were deleted in one of the texts in each pair. Students' textual competence was tested using 10 open-ended i.e. essay type questions. Seven of those questions were based on discourse markers and the rest three were regarding the facts mentioned in the texts. The analysis showed that higher mean scores were obtained from the open-ended reading comprehension tests based on texts with discourse markers in both groups. But, the effect of discourse markers was not the same for both levels. The upper intermediate group students obtained higher mean scores compared to the students in the intermediate group when discourse markers were deleted from the reading texts. The researcher states that "as the proficiency level goes up, the learners can predict more and use other reading strategies that can help them to comprehend the passages without discourse markers" (Uçku 1996, p.70)

Lee (1993) investigated the effects of signals i.e., headings, previews, and logical connectives on the reading comprehension of ESL learners. The study was carried out with 232 less-skilled readers of English. In the study, the participants were asked to read a relatively difficult passage on an unfamiliar topic. Eight versions of the passages created as: no signals; headings only; previews only; logical connectives only; headings and previews; headings and logical connectives; previews and logical connectives; or headings, previews, and logical connectives. The logical connectives used in the texts were selected from Halliday & Hasan's (1976) list of conjunctive relations. The participants took a test on five main ideas in the text. The test included factual and inference questions. The study revealed that headings and previews improved factual comprehension at the level of superordinate ideas. However, insignificant effect of logical connectives for both factual and inferential comprehension was found. Many possible reasons were stated at the end of the study to explain the ineffectiveness of connectives such as: logical connectives did not support comprehension when they read a relatively difficult passage; readers might have been distracted by the logical connectives that emphasized subordinate information and relationships; readers did nor pay enough attention to connectives or misconstrued them in the comprehension process; wide range of logical connectives (20 connectives) were used in the study and it was beyond their capability; oversignalling may hinder comprehension and the logical connectives may have lead to the insignificant result.

Chung (2000) investigated the effects of logical connectives and paragraph headings on reading comprehension. The participants of the study were 577 Hong Kong Secondary 6 ESL students. First, the participants were divided into three performance groups as high, medium, and low after giving the students an English reading comprehension test. Then, four versions of an authentic text were produced as follows: Version1 (non-signaled), Version 2 (logical connectives as signals), Version 3 (paragraph headings as signals) and Version 4 (a combination of logical connectives and paragraphs as signals). The study showed that logical connectives individually (Version 2) contributed to macrostructure understanding but did not contribute to microstructure understanding. Paragraph headings and logical connectives in combination (version 4) were more effective than logical connectives individually for microstructure understanding. The

study showed that logical connectives do not help understanding at microstructure level but they are helpful for understanding at the macrostructure level.

Ozono (2002) used Japanese university students as subjects, and found that text comprehension of both high and low level students is better when the logical relations were indicated explicitly rather than implicitly and that adversative (however) was more difficult than causal (because) for the low group whereas the types of logical connectives did not so much influence the performance of the high group. Yet, the study was considered inconclusive by the researcher. The reason is that it did not reflect the learners' perceptions of difficulty with the logical relations because the reading texts were long and multiple-choice were used. To improve the experiment and to reach clear conclusions, the study just below was carried out.

Ozono and Ito (2003) investigated how types of logical relations and the levels of proficiency in English affect text comprehension. The participants were Japanese university students and three logical connectives were the focus of the study i.e., 'for example' for illustrative, 'therefore' for causal, and 'however' for adversative. Logical Relations Reading Test, which is a special test developed for the study and consisting of six passages including a blank, was used as the instrument of the study. The participants were asked to select the appropriate logical connectives for the target logical relations to fill in the blank. The study showed that the type of logical relations did not so much affect the reading performance of the high proficiency group while the performance of the low proficiency group varied from one type of logical relation to another. The results also indicated that the high group tended to select all the mentioned connectives evenly whereas the low group tended to prefer 'for example' over 'therefore', and 'therefore' over 'however'.

2.5.2. Use of connectives in written production

Horn (1969) tried to find out whether the number of basic logical relationships could be contained in a fairly limited list. She examined paragraphs of a material published for use in teaching reading to foreign learners. She used eighteen categories, while analyzing the relationship of each sentence to the sentence preceding it. The categories

were "meaning relationships" presented in a composition book written by Jones and Falkner (1961, 1968 cited in Horn, 1969). The relationship list that had been used in the study was: Alternative, Amplification, Answer, Cause, Comparison, Contrast, Definition, Evaluation, Evidence, Example, Generalization, Inference, Parallel Idea, Question, Related Action, Restatement, Result, and Summary. Horn pointed out that logical relationships could be contained in a fairly limited list suggest that the procedure described has possibilities as a useful device for teaching the logical relationships and they can be used as a teaching aid for reading comprehension.

McDevitt (1989) analyzed the errors of students following pre-degree English courses in the University of the South Pacific. The researcher analyzed the errors in the students' writings and found that inaccurate use of linking devices is one of the four main areas of error in addition to incomplete sentences, ungrammatical relationship between clauses, and repetition of grammatical component. The study revealed that students could not recognize the restraints and expectations created by linking devices as in the following examples:

   67. ....the roofs leak, so rats and other animals make their homes there.

The study showed that they omitted the device and used a comma.

   68. The rooms are very small with many families, they cook in the same area… .

Shi (1993) carried out a study with three hundred freshman college students in the Indiana University of Pennsylvania. The students were asked to write an argumentative essay in one hour. The essays were scored holistically by four trained readers to determine writing quality. The study showed that low-rated essays included more conjunctions than high-rated essays, and that nearly 37% of the conjunctions in the low-rated essays were "but" and "because" were found to be the most frequent conjunctions following "and". The writers of high-rated essays used a great variety of conjunctions such as "consequently", "therefore", "however", "moreover". This showed that those students used a more complex system of semantic relationships, which demanded more

cognitive engagement. The study also showed that strategies such as reading, planning, and rehearsing had a great effect on coherence.

Tang & Ng (1995) investigated the connectives used by the undergraduates at the City University of Hong Kong. A corpus consisted of 32 pieces of writing was collected from first year undergraduates. The writing pieces were chosen from the BA in Teaching English as a Second Language and BSc. in Biology and Chemistry. Students were asked to write anything about Education in Hong Kong. All the writing pieces were loaded into the Longman Mini-Concordancer. After entering each connective, the frequency lists were found. The study showed that science students used fewer connectives than arts students, and both group of students used a lot of resultive, listing, and contrastive connectives in their writing. The 10 most frequently used connectives found in the science group and the arts group are nearly identical even if their rankings are slightly different. For the science group the top ten connectives are: 'and', 'however', 'for example', 'since', 'because', 'so', 'as', 'therefore', 'besides', 'in fact'. For the arts group the top ten connectives are: 'and', 'however', 'because', 'so', 'since', 'besides', 'as', 'that is (i.e.)', 'for example (e.g.,)', 'therefore'. Tang & Ng(1995) study showed that 'and' is the most frequently used connective. According to Tang & Ng (1995), students think that 'and' is the simplest and easiest connective. "It can be used to join any sentences and the connection it makes is straightforward." (Tang & Ng, 1995)

Şuyalçınkaya (1995) investigated the role of connectives in increasing the performance of students in report writing. The participants of the study were first year intermediate level students at the Military Academy. Two groups were used in the study as the control group and the experimental group. There were 30 students in each group. The experimental group received systematic treatment of connectives in the 1994-1995 academic year whereas the control group followed the normal program. Students received a pre-test at the beginning and a post-test at the end of the academic year. The scores of the groups were compared using t-test to see if the treatment has positive impact on the participants' report writing. The mean score of the experimental group was found to be higher than the control group and the difference was significant.

Granger & Tyson (1996) investigated the use of connectives in the essays of the native and non-native EFL speakers of English. The study showed that some connectives were overused and underused, and some semantic, stylistic and syntactic misuse were found. After selecting the connectives for the study, every instance of the connectives were extracted from the ICLE corpus and their frequencies were calculated. Then, the connective usage in a sample of the French L1 sub-component of the ICLE was compared with the writing from the control corpus of English essay writing. The study indicated that learners do not use connectives that change the direction of the argument, rather they use connectives for addition, exemplification and to emphasize a point. 'Moreover', 'indeed', 'of course', and 'for instance' were found to be the most overused connectives by the non-native speakers. French learners used 'moreover' "to add a point rather than to add a final powerful argument to convince the reader of a particular point".(Granger & Tyson, 1996, p.22) Connectives such as 'anyway' and 'so' that are frequently used in colloquial language were frequently found in the essays of the French learners of English.

Cho (1998) investigated the relationship between the use of connectives by Korean learners of English as a foreign language and their length of study (learners with two 2 years of study of English and 3 years of study of English). It was found that the length of study was related to the overall occurrence of the range of connectives produced, but it did not lead to a greater number of subordinators, which contribute to the syntactic complexity of a sentence. The study showed that the group with 3 years of study produced more words, more connectives, and more T-units than that with 2 years of study. The study revealed that the length of study did not only affect correct uses but also incorrect uses of connectives. The researcher explains this stating that this could have been expected, considering that the participants with 3 years of study used more connectives and that they have not completed the acquisition of connectives. The incorrect uses included misuse, overuse, underuse, and grammatical errors. The group with 3 years of study made no error of underuse which was interpreted by the researcher as "this may suggest that length of study enhances students' awareness of when the sentences should be connected with the help of connectives" (Cho, 1998). The study

showed that the longer the students studied, the more they tended to use connectives where they were not necessary. This result can be considered to provide additional evidence that such overuse is one of the developmental patterns in the acquisition of connectives. In addition, some errors were found to be more frequent with certain types of connectives. For example, students tended to overuse 'and' and 'so'; incorrect use of 'but' was frequent; grammatical errors occurred because of the incorrect use of 'because'.

Dülger (2001) investigated the use of connectives in teaching writing. More specifically, the effect of product-viewed and process viewed writing courses was investigated. One hundred -and -fifty six essays belonging to 76 students have been analyzed in terms of the use of discourse markers. Firstly, the students wrote their essays after a series of product-viewed courses. Then, the same students took process-viewed courses and they wrote their second essays. The analysis showed that the number of discourse markers used in the essays written after the product-viewed courses was 803 and this number increased to 1054 in the essays written after the process-oriented courses. The variety of discourse markers used was also increased after taking process viewed courses in that the papers included at least 2 different expressions and the most 12 after product oriented courses while the minimum and maximum numbers rose up to 4 and 15 respectively after the process viewed courses.

Tickoo (2002) investigated how Vietnamese and Chinese learners of ESL use 'then' and 'after that'. The Vietnamese participants of the study were young adults who had spent between 10 months and 3 years in the USA and received some explicit instruction about sentence connectives including temporal adverbials. As for the Chinese participants, they were freshmen at a Hong Kong university. 150 short essays written by those learners were used for the study. It was found that two-thirds of 416 instances of 'then'/ 'after that' were felicitously used and the rest, which is also a large number, violate the aspectual and/or given-new constraints. Some findings of the study are as follows:

     69. I was sitting next to her, Then I was talking with her…

In the example above, the situation preceding the second key situation is an activity, in other words, a situation without an endpoint. Therefore, the example violates the aspectual constraint. Tickoo (2002) suggests that the sequence becomes felicitous if an explicit endpoint is introduced as follows:

> 70. *I was sitting next to her for the first hour.* **Then** *for the next hour I was (actually) talking to her.*

The following finding is an example of violating the given-new constraint:

> 71. *I asked her about the people who sat near her parents.* **Then** *she showed (told) me everything I wanted to know.*

The sentence starting with 'then' is not felicitous because an answer is anticipated when a question is asked as stated by (Tickoo, 2002) The study revealed that tenseless L1 had an effect on the use of temporal reference.

Bolton,et.al., (2002) compared the Hong Kong (HK) component and British (GB) component of the International Corpus of English (ICE). The study showed that the most overused connective in Hong Kong data is 'so', and 'and'. As for the British data, 'However' and 'so' are the most overused. 'At any rate' has not been found in both ICE-HK and in ICE-GB; 'in any case' does not exist in ICE-HK and it was found only once in ICE-GB.

Ting (2003) analyzed how cohesive ties had been used in the writing of Chinese tertiary EFL students studying at the Centre for English Language Communication, National University of Singapore. Halliday & Hasan's (1976) taxonomy of cohesive devices were used to analyze students' essays. Moreover, ESL Composition Profile (Jacobs et al., 1981) was used to distinguish good essays and poor essays and one-way ANOVA was used in order to examine the difference in the number of cohesive errors between good essays and poor essays. 80 essays were examined by two independent raters. Cohesive errors regarding conjunctions were found both in good and poor essays. The study showed that errors in the use of adversatives and additives were more common than errors in using causals and temporals. No significant difference was found between

the good essays and the poor essays in the number of cohesive errors in the four conjunction categories i.e., Additives, Adversatives, Causals and Temporals. The researcher states that the most typical additive errors are concerned with superfluity of additives i.e., they used them just to show the reader that they are adding another point to the previously mentioned points. The study showed that the errors in the use of adversatives were caused by both intralingual interference. For example, they used 'on the contrary' for 'however'. The study also indicated that some students could not use the order of cause-effect properly.

Leung (2005) compared the use of three major conjunctions ('and', 'or', 'but') by Chinese and American university students. The study showed that non-native students used fewer conjunctions and certain connectives more than the native speakers. The researcher claims that one of the reasons for the overuse is the overemphasis put on certain connectives at schools. The other reason is L1 transfer e.g., both 'except' and 'besides' can be translated into the same Chinese term and students confuse the two connectives (Leung, 2005).

Choi (2005) investigated in what ways argumentative essays in English of native speakers of Korean (ESL) and native speakers of English differ in terms of error types, textual organization, and cohesive devices- conjunctions/logical connectives, reference, sequencers, certainty markers, lexical cohesion. The participants of the study were 46 American and 46 Korean students enrolled in the Southern Illinois University at Carbondale. In the study, the students were asked to write an argumentative essay of around 250 words. The study showed that both ESL learners and native speakers used conjunctions and logical connectives most frequently among the cohesion devices in their essays (mean 12.4 for the Korean students and 15.6 for the American students). The study showed that overall the American students used more cohesion devices (total mean:36.9) than Korean students (total mean:30.7). The study also showed that conjunctions/logical connectives are the most frequently used cohesion device both by the Korean and American students (means for conjunction/logical connectives, reference, sequencers, certainty markers, and lexical cohesion are 12.4, 9.8, 1.1, 0.2, 7.3

for Korean students respectively, and 15.6, 12.6, 0.5, 0.3, 8.0 for American students respectively).

In Chen (2006) study, the learner corpus of 23 papers by MA TESOL students from Taiwan and the control group consisted of 10 journal articles from two international TESOL journals were compared in terms of conjunctive adverbials. The study showed that advanced EFL learners used additive conjunctive adverbials (33.8%) while the professional writers most frequently used the conjunctive adverbials in the adversative category (37%).

Literature indicates that children usually first acquire additive, temporal and causal relations and then acquire adversative relation. Since adversative relations present an opposing view to the view that was previously stated, they are more difficult to understand than continuative relations. Pretorius (2006) study supports this view. In her study, Pretorius (2006) investigated ESL students' ability to connect information connected by three types of connectives i.e., illustrative, causal, and adversative connectives while reading expository texts in relation to students' academic performance and their proficiency in English. The study showed a strong relationship between the academic performance and ESL proficiency, and students' comprehension of logical relations. As academic performance increased, increased performance in comprehending adversative relations were found across the groups. Students found illustrative relations the easiest whereas adversative relations the most difficult. In addition, global adversative relations were found to be more challenging than the local adversative relations.

Ying (2007) investigated the similarities and differences in the usage of discourse connectives such as 'because',' so',' and', etc. among the following three types of university students: native speakers of English (NS), non-native Chinese students (CNNS) and non-native Japanese students (JNNS). The study revealed that 'and' is the most frequently used connective for the three groups of students. JNNS and CNNS used the additive and causal forms of 'and' whereas native speakers of English used a variety

of 'and'. According to Ying (2007), this might reflect potential evidence for incomplete knowledge of how to use 'and' by JNNS and CNNS.

CHAPTER 3
METHODOLOGY

This chapter includes the research questions, the participants of the study, the materials used in the study, the procedure, and the data analysis of the study.

3.1. Research Questions

Previous studies in the field focused on the use of discourse markers (according to the terminology used in this study, they are items that do not change the truth condition function of an utterance or the relation between two consecutive sentences), and also some word groups such as 'the other thing, the most important, at the end of my essay, as I said above, etc.) while studying connectives. The current study is different from the other studies in the field because it makes a clear distinction of the terms 'discourse marker and 'connective'. It is also different in that the L1 of the participant group is Turkish and they are ELT department students. The study will help to reveal both intralingual and interlingual errors made in the use of connectives and it mainly investigates the following questions:

1. Which discourse connectives do Turkish ELT department students use?
2. For what coherence relations do Turkish ELT department students use those connectives?
3. How appropriately do they use those connectives?
4. How correctly do they use those connectives?

3.2. Participants

The data was collected in the spring semester of the 2007-2008 academic year from 137 first year students from 6 different sections of the İNÖ 132 Academic Writing and Report Writing course offered in the English Language Teaching B.A. program in the Education Faculty at Anadolu University, Turkey. Based on the students' responses in the demographic questionnaire, some students' essays were excluded from the study. More specifically, one foreign student whose native language was Russian, one student whose major was French language teaching, three students taking this course second

time because they had failed the previous year were not involved in the study to ensure homogeneity. The remaining 132 students whose L1s were Turkish were the main participants of the study. Most students stated that they had been learning English for 8-10 years and most of them graduated from an Anatolian high school. Similarly, most students stated that they did not received instruction on connectives, punctuation marks and argumentative essay writing in grammar or writing courses in the previous term. They stated that they were not taught how to write an argumentative essay. Yet, those students might have received instruction about connectives in English courses before coming to the university.

Information about the previous semester course (İNÖ 131 Written Communication) and the course syllabus were also obtained from the course instructors. The course instructors stated that a course pack was used as the main course material and they did not particularly focus on connectives in the previous semester because teaching connectives was not one of the aims of the course. They stated that they just asked the students to underline the connectives while reading the paragraphs in the course pack. Students were not asked to do any exercise involving the use of the connectives. Whether there was explicit instruction about the connectives in the course pack was also investigated by the researcher. It was seen that connectives that are used in specific essays types were given in limited number in lists and they were used in a sentence as an example. As also stated by the participants, the argumentative essay writing is not among the topics in the previous semester's course syllabus, but it is in the syllabus of the second semester course in which the data was collected (İNÖ 132 Academic Writing and Report Writing). Since the data was collected at the beginning of the semester, the students had not received instruction about argumentative essay writing when they wrote the argumentative essays for the current study.

3.3. Materials

Argumentative essays written by the participants whose features were explained above were the main material of the study. In addition, a demographic questionnaire and a consent form were used in the study.

For the second research question, the Halliday & Hasan (1976) taxonomy of coherence relations was adapted and used. The main adaptation made in the Halliday & Hasan (1976) model is the addition of a fifth category, which is the Summative Relation. For the third and fourth research questions, the rubric used in Cho (1998) study was elaborated and modified as discourse appropriateness and structural correctness, and this elaborated version was used.

The table that was used in Cho (1998) includes two main categories as Correct Use and Incorrect use. The Correct Use does not have any subcategory whereas the Incorrect Use includes Misuse, Overuse, Underuse, and Grammar error. In the current study, discourse appropriateness and structural correctness distinction was made and a new table was created for both discourse appropriateness and structural correctness. The Relation not understood category was added as a new category for discourse appropriateness. The structural correctness was detailed by adding punctuation error, and both grammatical and punctuation error categories (See Table 4 and Table 5).

3.4.   Procedure

3.4.1. The pilot study
The study was piloted with essays written in the in-class writing course examination by the 2nd year ELT department students at Anadolu University Education Faculty. The essays were not planned. Kehler (2002) coherence relations were used to code the relations indicated by the connectives and the unmodified version of the rubric used in Cho (1998) study.

The pilot study revealed that 40 types of connectives were used in 134 tokens. Connectives in 103 tokens were used correctly;14 of them were misused i.e., the connective used is not consistent with the relation that exists between sentences; 3 of them were overused; 1 of them was underused; 13 of them included grammatical error. This means 76% of them were used correctly, whereas 24% of them were used inappropriately i.e., they were misused, overused, underused or indicated a grammatical

error. The percentages are 11%, 2%, 1%, and 10% respectively. The connective 'because' was the most incorrectly used connective.

100% of the connective 'on the other hand' was used to show contrast in resemblance relations, 100% of 'Although' showed denial of preventer in Cause-Effect relationships; %100 of 'first of all' was used for Exemplification in Resemblance relations; %100 of 'for example' was used for exemplification category in Resemblance relations; %100 'secondly' was used for exemplification in Resemblance category. Most of the connective 'and' (46%) was used for the Result category in Cause-Effect relations; 35% of it was used for Occasion1 category in Contiguity relations; 9% of it was used for Parallel category in Resemblance relations; 5% of it was used for Generalization category in Resemblance relations; and 5% of it was used for Elaboration category in Resemblance relations. The connective 'when' was mostly used (86%) to show Result category in Cause-Effect relationships, and the rest 14% was used to show Occasion 1 in Contiguity relations. Connectives 'since' and ' as' were equally used (50% and 50%) for Result category and Explanation category in Cause-Effect relations. 100% of 'furthermore', 'for instance', 'moreover', 'in addition', 'take for instance', 'to take point further', 'firstly' were used for Exemplification category in Resemblance relations. 100% of ' at that time', 'at this time', and 'after' were found to be used for Occassion1 in Contiguity relations. The connective 'despite' couldn't have been placed into a category by the researcher. 100% of 'finally', 'that's why', 'at last', 'as a result'', 'in the end', 'in conclusion', 'thus', 'as a conclusion', 'conclusively', 'therefore', 'summarizingly' were used to show the Result category in Cause-Effect relationship; 90% of 'so' was used to show 'Result' category in Cause-Effect relations, and 10% was used to show elaboration category in Resemblance Relations. 90% of 'if' was used to indicate the 'Result' category in Cause-Effect relations, and the rest couldn't have been placed into a category by the researcher. 100% of 'because' was used for Explanation, which is a Cause-Effect relation category. The connective 'but' was used to show every kind of relation as follows: 6% to show Result and 32% to indicate Violated Expectation in Cause-Effect relations;13% was used to indicate Contrast1, %25 for Exception, 13% for Contrast 2 in Resemblance Relations; and 6% couldn't placed into a category by the researcher. The learners used 67% of 'in other way' to show Result

and the rest was placed into the miscellaneous category. 50% of 'however' showed the Result category in cause-effect relations whereas the other 50% of it was used to show Exception in Resemblance relations. 50% of 'Also' was used for 'Explanation' in Cause-Effect and 50% of it was used for Contrast1 in Resemblance category. 50% of the connective 'then' was used to show Result and 50% of it was used to indicate Occassion1 in Contiguity relations.

After the pilot study, some modifications were made. The most important of them is that the Kehler (2002) coherence theory was given up and Halliday & Hasan (1976) was used as the coherence criteria. The reason is that although Kehler (2002) theory is a valuable theory, it does not present coherence relations in detail and it is very difficult to decide the relation that sentences indicate. On the other hand, the coherence relations and most of the possible connectives that indicates those relations are more detailed and straightforward in Halliday & Hasan's (1976) model. Since a more straightforward model was needed for the ELT field, Halliday & Hasan (1976) model was used in the current study. Another modification is that Cho (1998) rubric was detailed and modified i.e., two different criteria tables were created for discourse appropriateness and structural correctness. The other modification is that the participant group was changed because of the change in the curriculum of the ELT department at Anadolu University. When the pilot study was carried out, participants were taking the academic writing course in the 2nd year before taking the subject area courses. For this reason, the participants were second year students. In the 2007-2008 academic year, this course was included in the second semester of the 1st year in the curriculum. Therefore, the participants of the current study are 1st year students.

3.4.2. The current study

The data for the current study was collected in the spring semester of the 2007-2008 academic year. The participants were asked to write an unplanned well-developed essay (at least 3 paragraphs i.e., one introduction, one development, and one conclusion) concerning the question 'Should everybody go to university?' Such a general topic was chosen and prompts were given so that students could write comfortably. A similar topic was not practiced in class before. No word limitation was given.

Students were asked to write the essays in around 25 minutes of the 45 minute class hour as a regular class activity, and then they were informed that the essays would be used for a scientific research. Then, the demographic questionnaire was distributed to the students and the students filled it in. Students' written consents were also obtained.

3.5. Data Analysis

Students' argumentative essays were typed and then compared with their originals to prevent any mismatch between the typed versions and the essays written by the students. Papers were read more than once, and each connective in each essay was coded by the researcher and a native speaker for reliability. First, the coherence relation categories indicated by each connective were coded using letters. Then, the appropriateness and correctness categories were coded using numbers. Kappa was used to calculate inter-rater reliability. For the relations shown by the connectives used, Correlation Coefficient is 0,991. For discourse appropriateness and structural correctness, Correlation Coefficient was found 0,995 and 0,998 respectively. For all questions, the overall Correlation Coefficient is 0,986. For the second research question, the Halliday & Hasan (1976) model was used.

Table 3 shows connectives and coherence relations that they denote:

Table 3. The adapted version of the Halliday & Hasan (1976) model

ADDITIVE	ADVERSATIVE	CAUSAL	TEMPORAL	SUMMATIVE
1 Additive, simple, positive and, and also, or, or else, and…too, **2. Additive, Simple, Negative** nor, and…not, not… either, neither **3 Complex** *a. Complex, emphatic:* furthermore, in addition, besides, alternatively, moreover, additionally, what is more *b.Complex, de-emphatic:* incidentally, by the way 4. **Appositive:** that is, I mean, in other words, for instance, thus, for example, to put it another way **5. Comparative** likewise, similarly, in the same way, on the other hand, by contrast, conversely, as opposed to this	**1. Concessive:** yet, though, only, but, however, nevertheless, despite this, although **2. Contrastive** *a. Contrastive Internal (Avowal):* in fact, actually, as a matter of fact, to tell the truth *b. Contrastive external:* but, and, however, on the other hand, at the same time, as against that **3. Corrective** instead, rather, on the contrary, at least, I mean **4. Dismissal** in any case, in either case, whichever way it is, in any case, anyhow, at any rate, however it is the	**1. Cause:** for, because **2. Result:** so, then, hence, therefore, consequently, because of this, as a result, in consequence, accordingly, arising out of this, to this end **3.Purpose:** for this purpose, with this in mind, with this intention, to this end **4.Conditional** then, in that case, in such an event, that being so, under the circumstances, otherwise, under other circumstances, in such event **5. Respective** in this respect, in this regard, with reference to this, otherwise, in other respects, aside/apart from this	**1. Temporal, simple** then, and then, next, after that, just then, at the same time, previously, before that, secondly, afterwards, **2. Conclusive** finally, at last, in conclusion, in the end, eventually **3. Correlative** first...then, at first...in the end, first…next, finally, first, first of all, to begin with, next, secondly, finally, to conclude with **4. Temporal, Complex** at once, thereupon, soon, after a time, next time, on another occasion, next day, an hour later, meanwhile, until then, at this moment **5.Here and now** up to now, up to this point, hitherto, at this point, here, from now on, hence-forward, hereunder	to sum up, in short, briefly, to resume, to return to the point, finally, in conclusion, anyway, in a word, to put it briefly

In the following sentences, the connectives 'and', 'and', and 'but' indicates Additive Relation, Additive Simple category; Adversative Relation, Contrastive External Category; Adversative Relation, Concessive category respectively.

> 1. We must study **and** try to go to university.
> 2. Some people think it's a necessity for society **and** the others think it's not important.
> 3. Some people go to the best universities **but** they don't have a good education.

When no predicate exists and no relationship at discourse level was observed, the device was not coded.

> 4. University education is necessary for a wealthy **and** successful life.

In this sentence, 'and' was not coded because it does not indicate a coherence relation.

> 5. **In spite of** low grades, they can graduate from a university.

In the sentence above, 'in spite of' was not coded because it takes an NP and it does not show a coherence relation.

For the third and fourth research questions, the guideline that was used in Cho (1998) was adapted and used. The guidelines that were adapted from Cho (1998) and prepared for the current study are as follows:

Table 4. Criteria for discourse appropriateness

CATEGORIES	GUIDELINES
Discourse Appropriateness:	
1. Appropriate Use	*The connective used corresponds appropriately to the relation that exists between sentences.*
2. Inappropriate Use	
Misuse:	*The connective used is not consistent with the relation that exists between sentences.*
Overuse:	*The connective is used where the connection between sentences is so obvious that it does not require any connective.*
Underuse:	*A connective is not used where a connective is needed.*
3. Relation not understood	*The relation indicated by the connective was not understood and could not be placed into any coherence relation category.*

Examples:

Misuse:

> *6. In our country university education is important. If you are a university student, everybody think that you are clever and you going to be an important person. For this reason most of the students want to go to university. I think everybody should go to university. There are some reasons why everybody should go to university.*
> *First of all, if you graduate from university, you will get a good job and you will earn money. In this way, you will be live better life. Secondly, People will think that you an important person because you graduated from university. So your social status will be better than other people.*
>
> *As a result, people should go to university for their future. If they go to university their life will be better in the future.*

In the last paragraph, the student used 'as a result' to indicate a summative relation or to reach a conclusion. The sentence does not indicate a result, it indicates conclusion. Since 'as a result' must normally be used to indicate causal relation, result category, it is

misused in this sentence. A connective indicating summative category e.g., 'In conclusion' would be appropriate in this sentence.

Overuse:

> *7. When a university student graduates from school, he's considered to be qualified with the job.* **Therefore,** *this leads them to have more chance to get a job than a one with no academic background.*

In this sentence, the student overused the connective 'Therefore' to indicate causal relation-result category. The second sentence begins with 'this leads them', which already indicates result category. For this reason, 'therefore' is overused in this sentence.

Underuse:

> *8. You can have a good status among people, you can have a comfortable life.*

Since two parallel units are listed consecutively, there must be an 'and' between the sentences instead of a comma.

The criteria for structural correctness is given in Table 5.

Table 5. Criteria for structural correctness

CATEGORIES	GUIDELINES
Structural Correctness:	
Correct Use	*The connective used corresponds correctly to grammar and punctuation rules*
Incorrect Use	
Grammatical Error:	*The connective used does not correspond to grammatical restriction on its use.*
Punctuation Error:	*The connective represents a correct semantic property, but it does not conform to the punctuation rules.*
Both Grammatical and Punctuation Error:	*The connective used does not correspond to grammar and punctuation rules.*

Examples:

Grammatical Error:

> 9. ***even if*** *all these bad sides of university education, getting a job and earning money is the unchangeable aim of our lives.*

'Even if' was used appropriately for causal relation, conditional emphatic category. There is grammatical error in the use of the connective because 'even if' was used with a noun phrase.

> 10. *There are bourses for help the students, but it rarely happens to have bourses.* ***Because*** *there are many conditions to have them.*

In the sentence above, the student use 'because' to indicate causal relation, cause category and it was used appropriately. The use of 'because' includes grammatical error. The reason is that 'because' is a subordinator but in this sentence subordinate clause stands on its own as if it is a separate sentence.

Punctuation Error:

> 11. ***However*** *being educated from a good university, like Anadolu University, people can provide themselves a good life style and much more.*

In the sentence above, a comma is needed after 'However'. Since the comma was not used by the participant, there is a punctuation error.

Both Grammatical and Punctuation Error:

> 12. *One of the reasons why everybody should go to university or why university education is very important is that people need higher education so as to get a job and make money.* ***Since****, it is the nature and need of human to stay alive.*

Since has been used appropriately for causal relation in this sentence. However, there is both grammar and punctuation error. The sentence beginning with 'since' cannot stay on its own because 'since' is a subordinate. There must not be a comma after 'since'.

Goldvarb X statistics program was used for the analysis by the researcher. The reason for choosing Goldvarb X is that it has been created for dealing with the statistics of research in language variation. (See Appendix E for more information)

To do the analysis, first of all, a word document was created for each connective that was used. The document included the tokens where the connective appeared and the codes for appropriateness and correctness. Then each document that was created for each connective type that was used in the study was adapted for Goldvarb X according to Goldvarb X criteria and copied and pasted into the Goldvarb X file. The distribution of the coherence relations indicated by each connective on the basis of their appropriateness and correctness were calculated in the program. This process was done for each of the 72 connectives that was used by the participants.

CHAPTER 4

RESULTS and DISCUSSION

This chapter presents the findings of the study for each question and discusses the possible reasons of the findings. Firstly, it shows the discourse connectives that participants have used and discusses the results. Secondly, the relations for which each of these connectives were used will be stated. Thirdly, it shows how appropriately each of these connectives has been used and the results are discussed. Then, it indicates the results regarding how correctly each of those connectives has been used. The chapter also indicates the overall results regarding the overall appropriateness and structural correctness of the connectives.

4.1. The Discourse Connectives Used by Turkish ELT Department Students

4.1.1. Results

The study showed that the participants of the study used 72 different types of connectives in their argumentative essays and they used them in 1111 tokens. The most frequently used top ten connectives are 'and', 'but', 'if', 'so', ' because', 'when', 'in conclusion', 'first of all', 'however', and 'firstly'. 'And' was used in 213 tokens and is the most frequently used connective. 'But' was used in 151 tokens and 'if' was found in 91 tokens. 'So' was used in 86 tokens and 'Because' was used in 85 tokens. 'When' was used in 73 tokens. 'In conclusion' was used in 23 tokens. 'First of all', 'however' and 'firstly' were used in 23, 22, and 21 tokens, respectively.

Type, number, and percentages of the connectives used by the participants are shown in Table 6.

Table 6. Type, number, and percentages of the connectives used by the participants

Connective	N(%)	Connective	N(%)
And	213 (19%)	As	4 (0%)
But	151 (14%)	Nevertheless	3(0%)
If	91(8%)	In short	3(0%)
So	86(8%)	Actually	3(0%)
Because	85(8%)	In addition to this	3(0%)
When	73(7%)	On the contrary	3(0%)
In conclusion	25(2%)	I mean	3(0%)
First of all	24(2%)	Besides	3(0%)
However	22(2%)	For instance	3(0%)
Firstly	21(2%)	Furthermore	3(0%)
For example	20(2%)	Briefly	2 (0%)
Although	18(2%)	In brief	2(0%)
Or	17(2%)	In other words	2(0%)
Therefore	15(1%)	That's to say	2(0%)
While	15(1%)	Thus	2(0%)
Moreover	14(1%)	What is more	2(0%)
Also	13(1%)	Secondly	2(0%)
To sum up	13(1%)	First	2(0%)
Finally	13(1%)	Next	2(0%)
In order to	12(1%)	So as to	2(0%)
Not only but also	11(1%)	But on the other hand	2(0%)
On the other hand	11(1%)	In this case	2(0%)
After	8(1%)	Yet	1(0%)
Even if	8(1%)	Instead of this	1(0%)
As a result	7(1%)	By the way	1(0%)
Then	7(1%)	Namely	1(0%)
Consequently	6(1%)	That is	1(0%)
And also	6(1%)	And finally	1(0%)
In addition	6(1%)	And then	1(0%)
Because of this	5(0%)	At the same time	1(0%)
All in all	5(0%)	At this point	1(0%)
At least	5(0%)	Meanwhile	1(0%)
In fact	5(0%)	For	1(0%)
After that	4(0%)	Before	1(0%)
As a conclusion	4(0%)	Whereas	1(0%)
Since	4(0%)	Even though	1(0%)

4.1.2. Discussion

The British National Corpus (BNC) was used to investigate whether those top ten connectives are also common in the use of native speakers of English. The British National Corpus shows the top ten connectives as follows: 'and', 'for', 'as', 'but', 'or', 'if', 'so', 'when', 'then', 'also'. Half of those connectives i.e., 'and', 'but', 'if', 'so' and 'when' are common with the top ten connectives used in the current study. This means

that the reason for finding those connectives at the highest level in learners' essay may be that those connectives are frequently used in English.

The study showed that 'and' is the most frequently used connective. The reason for using 'and' as the most frequently used connective may be due to its frequency in English. The British National corpus shows that 'and' is the most frequently used connective in English. It is also the most frequently used connective both in spoken and written English and in all text types used i.e., press, academic, and fiction texts. As evidenced in British National Corpus, this result supports (Ying 2007; Shi 1993; Tang & Ng 1995) studies. It is possible that students prefer using 'and' because it is the simplest connective.

As stated also in McLaughlin (2006), in first language acquisition, 'and' is the first conjunction to emerge and it is first used to express Additive Relations. Then, it is used to express Temporal Relationships and then for Causal Relationship. Finally, it is used to connect sentences with adversative meanings. "Of course, use of 'and' to express these meanings does not emerge until preschoolers become cognitively aware of these subtle semantic relationships." (McLaughlin, 2006 p.337) Children in other cultures have been found to develop use of connectives that signal these relationships in the same order (Reich, 1986 cited in McLaughlin, 2006)

In addition to the frequency effect, the text type of the essays the participants wrote might have affected the use of the type and frequency of the connectives used in the essay. The participants needed to demonstrate the existing controversies in argumentative essay. They tried to anticipate the opposite ideas that may come to the readers' mind and try to refute them. Since students wrote an argumentative essay, they might have frequently used 'But', which shows both concession and contrast. This idea also explains why students used 'However'.

As for 'Because' Turkish participants in the current research might have felt the need to use 'because' frequently because they wrote an argumentative essay and they needed to use evidence for their arguments. In other words, they needed to show the justifying

reason behind the ideas they defend. Ying (2007) showed that native speakers of English, Japanese and Chinese non-native speaker of English tend to use 'because' to describe reasons rather than cause-effect. In this respect, the present study supports Ying (2007) and also Halliday & Hasan (1976) because they state that '*b*, because *a*' is more frequent than 'because *a*, *b*'. The study also supports Tang & Ng (1995) in that 'so' is among the top ten most frequently used connectives by the participants.

The study showed that while 'as', 'for', 'or', 'then', and 'also' are found among the top ten frequently used connectives in the corpus, Turkish learners prefer using 'because', 'in conclusion', 'first of all', 'however', and 'firstly' in their essays. This may be because of the nature of the essay they wrote in this study. In argumentative prose, writers need to defend an argument showing and sequencing reasons and ideas, convince the reader and reach a conclusion. Therefore, frequent use of 'because', 'when', 'in conclusion', 'first of all', 'however', and 'firstly' in this study can be expected. When the top ten connectives in the British National Corpus and the top ten connectives in the participants' essays are compared, 'as' is among the top ten in the BNC whereas it is not so in the participants' essays. The high frequency of 'as' in the BNC may be because it shows both Causal and Temporal Relations. It seems students in the study substituted the causal meaning of 'as' for 'because' and they substituted the temporal meaning of 'as' for 'when'. 'For' might have also been substituted with 'because' since both of them may show the same type of Causal Relation. Hinkel (2003) states that adverb clauses of cause (because, since, as, for) represent a prominent characteristic of spoken discourse in English and serve as a most direct means of indicating Causal Relationships between actions and events in context. According to Biber et al.(1999: 821), they are particularly rare in academic prose, possibly due to the fact that in many academic texts, direct relationships between causes and their outcomes cannot be easily specified. Biber et al. (1999) comment, however, that among all cause subordinators used in conversation, fiction, or news reportage, 'because' was found as the single predominant marker. The current study supports this view showing that 'because' is one of the most frequently used connectives. The study also supports Tang & Ng(1995) in that 'because' is among the ten most frequently used connectives also by the L2 participants used in the current study.

As for 'first of all' and 'firstly', the participants might have used them to state the first or the most important ideas to defend their arguments. In other words, they used these connectives to show the argument they prioritize. 'In conclusion' was used to summarize the main points of the essays. The results also show that participants of the study did not use colloquial connectives in the study. This finding contradicts with Field and Yip (1992) in that the use of colloquial connectives such as 'anyway' is common in the essays of French learners of English whereas these types of connectives have not been found in the essays written by Turkish learners in this study.

In addition to those findings, the study showed that most of the connectives that are not used by the students are multi word connectives. Out of 38 connectives that are not used at all, 30 are multi-word connectives such as 'for fear that', 'provided that', ' due to the fact that', ' up to this point', ' hence-forward', ' seeing that', 'in other respects', 'whichever way it is', etc. Multi word connectives are long and hence they may be difficult to keep in memory, recall and retrieve. For this reason, students do not use them in unplanned and immediate production, especially if particular emphasis is not given to those connectives in instructional setting.

Summative connectives in the infinitive form such as 'to sum up', 'to conclude', 'to summarize' have not been found in the study. The reason for not using those connectives can be that they are also very infrequent in English. (Liu, 2008 or see BNC) Except for a couple of uses such as 'and also' and 'but on the other hand', connectives that are used together with a conjunction (e.g., 'and finally', 'and yet', etc.) are not frequent in the students' essays. The reason for this can be that these types of connectives are mostly used in speaking while they are infrequent in writing, particularly in academic writing. (Liu 2008, p.504 or see BNC)

The following connectives were not found at all in the students essays:

'Additionally', 'as a matter of fact', 'further', 'to crown it all', 'not to mention', 'to cap it all', 'for one thing', 'to put it another way', 'by the same token', 'correspondingly', 'which is to say', 'anyhow', 'at any rate', 'all things considered', 'in consequence',

'first and foremost', 'last of all', 'fourth/fourthly','in a word',' in sum', 'to conclude', 'to sum up', 'to summarize'.

The frequency of those connectives is under 10 per million words in BNC(Liu 2008, p.518) and this can explain why they were not found in the participants' essays. Another reason may be that their equivalents are rare in Turkish. Some connectives such as 'what's more', 'that is', 'because of this', 'all in all', 'in conclusion',' by the way', 'next', 'to sum up' have been found in students' essays although their frequencies are not so high in English. The reason may be that students might have received instruction about those connectives in classes before coming to the university.

4.2.   The Relations for which the Connectives Are Used

4.2.1. The number and percentages of connectives for each coherence relation category

Table 7 shows the number and percentages of the connectives used to indicate a specific relation category:

Table 7. Number and percentages of connectives for coherence relation categories

ADDITIVE	ADVERSATIVE	CAUSAL	TEMPORAL	SUMMATIVE	RELATİON NOT UNDERSTOOD
1 Additive, simple, positive And: 191 (79%) Or: 17 (7%) Also: 13 (5%) Not only but also: 11(5%) And also: 6 (2,5%) On the other hand: 1 (0%) But: 1 (0%) Then: 1 (0%) **2. Additive, Simple, Negative** ___ **3.Complex** *a.Complex, emphatic* Moreover: 14 (67%) Besides: 3 (14%) Furthermore: 3 (14%) What is more: 1 (5%) *b.Complex, de-emphatic:* By the way: 1 (100%) **4. Appositive** For example: 20 (69%) I mean: 3 (10%) For instance: 3 (10%) That's to say: 2 (7%) Namely: 1 (3%) **5. Comparative** While: 1 (50%) Whereas: 1 (50%)	**1. Concessive** But: 119 (74%) However: 17 (11%) Although: 15 (9%) Nevertheless: 3 (2%) And: 2 (1%) While: 1 (1%) Even though: 1 (1%) On the other hand: 1 (1%) Yet: 1 (1%) **2. Contrastive** *a. Contrastive Internal (Avowal)* In fact: 5 (63%) Actually: 3 (38%) *b. Contrastive external)* But: 25 (54%) On the other hand: 9 (20%) However: 4 (9%) And: 3 (7%) While: 3 (7%) But on the other hand: 2 (4%) **3. Corrective** At least: 4 (57%) On the contrary: 2 (29%) Instead of this: 1 (14%) **4. Dismissal** ___	**1. Cause** Because: 84 (91%) Since: 4 (4%) As: 3 (3%) For: 1 (1%) **2. Result** So: 84 (67%) Therefore: 14 (11%) And: 12 (10%) Because of this: 5 (4%) Consequently: 5 (4%) As a result: 2 (2%) Because: 1 (1%) Thus: 1 (1%) Then: 1 (1%) **3. Purpose** In order to: 12 (86%) So as to: 2 (14%) **4. Conditional** If: 89 (90%) Even if: 8 (8%) In this case: 2 (2%) On the contrary: 1 (1%) **5. Respective** At this point: 1 (100%)	**1. Temporal, simple** When: 73 (71%) While: 10 (10%) After: 8 (8%) Then: 5 (5%) After that: 3 (3%) And then: 1(1%) At the same time: 1(1%) Before: 1 (1%) Next: 1 (1%) **2. Conclusive** Finally: 1 (100%) **3.Correlative** First of all: 23(40%) Firstly: 21(37%) Finally: 7(12%) First: 2 (4%) Secondly: 2(4%) Next: 1 (2%) And finally: 1(2%) **4.Temporal, Complex** Meanwhile: 2 (100%) **5.Here and now** ___	In conclusion: 23 (37%) To sum up: 13 (21%) As a result: 5 (8%) Finally: 5 (8%) All in all: 5 (8%) As a conclusion: 4 (6%) In short: 3 (5%) Briefly: 2 (3%) Consequently: 1 (2%) In brief: 1 (2%)	Because: 6 (16%) But: 6 (16%) And: 5 (14%) For example: 3(8%) Although: 3 (8%) If: 2 (5%) So:2 (5%) What is more:1 (3%) That is: 1 (3%) Therefore:1 (3%) However: 1 (3%) At least: 1 (3%) In conclusion:1 (3%) As:1 (3%) Thus: 1 (3%) First of all: 1 (3%) After that:1 (3%) In brief:1(3%)

Some examples can be given in order to help how to read the table:

The Additive Relation Additive Simple, positive category is shown by 191 'and' uses. This is the 79% of all the connectives used to indicate Additive Simple, positive category. Similarly, Comparative category was shown by 1'while' and 1 'whereas'. This means the percentage of each of these connectives in Comparative category is

50%. Beginning from highest to the lowest, the frequency of the relations indicated by connectives in this study is as follows:

Causal, Additive, Adversative, Temporal, Summative.

Table 8. and Figure 2. present the number and percentages of the coherence relations used by participants.

Table 8. Number and percentages of the coherence relations

Coherence Relation	Number (%)
Causal	332 (30%)
Additive	294 (26%)
Adversative	221 (20%)
Temporal	163 (15%)
Summative	62 (6%)
Relation not understood	38 (3%)
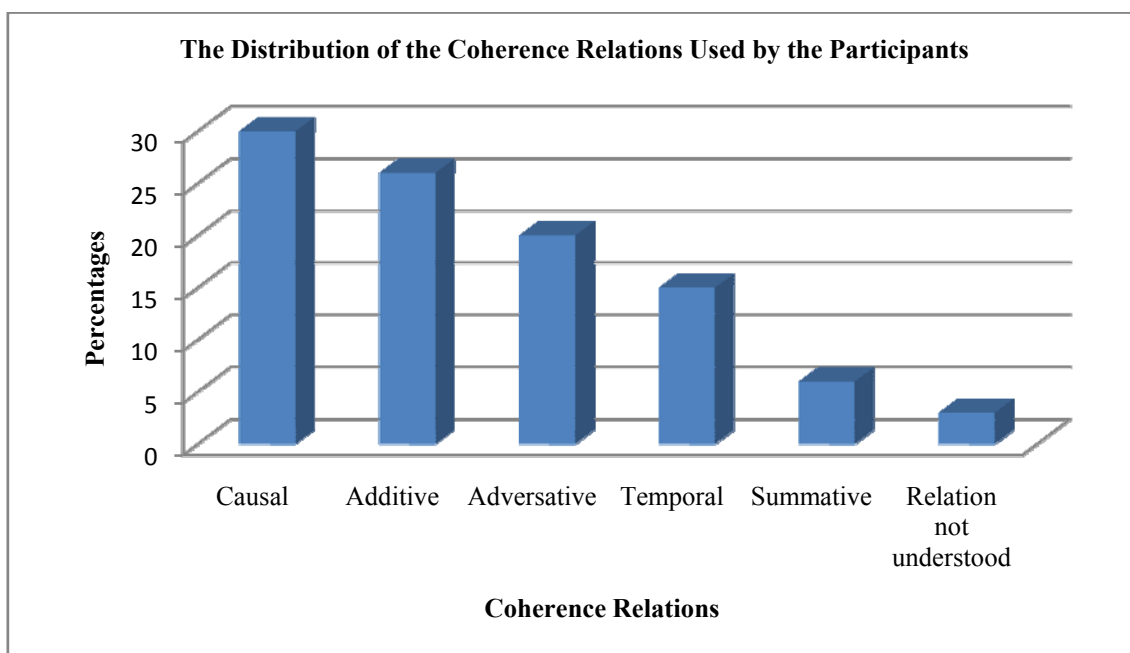
Figure 2. Distribution of the coherence relations used by the participants

4.2.2. The connectives used for Causal Relations

Table 9. shows how many of a specific connective was used for Causal Relation.

Table 9. Number and percentages of Causal connectives.

Connective	Cause	Result	Conditional	Respective
As	3(75%)	-	-	-
For	1(100%)	-	-	-
Since	4 (100%)	-	-	-
Because	84 (96%)	1 (1%)	-	-
And	-	12 (5%)	-	-
Thus	-	1 (50%)	-	-
As a result	-	2 (29%)	-	-
Because of this	-	5 (100%)	-	-
Consequently	-	5 (83%)	-	-
So	-	84 (98%)	-	-
Therefore	-	14 (93%)	-	-
Then	-	1 (14%)	-	-
In order to	-	12(100%)	-	-
So as to	-	2 (100%)	-	-
If	-	-	89 (98%)	
In this case	-		2 (100%)	-
Even if	-	-	8 (100%)	-
On the contrary	-	-	1 (33%)	-
At this point	-		-	1 (100%)

Some findings that the table shows are as follows:

84 'Because' i.e., 96% of all the 'because's were used to indicate Causal Relation, Cause category. 84 'So' i.e., 98% of the 'so's used in the study indicates Causal Relation, Result category.

The number and percentages of each Causal Relation category used in the current study can be seen in Table 10.

Table10. Number and percentages of each Causal Relation category

CAUSAL	N (%)
Result	125 (38%)
Conditional	100 (30%)
Cause	92 (28%)
Purpose	14 (4%)
Respective	1 (-)
TOTAL	332 (100%)

As can be seen in the table, 332 connectives were used to indicate Causal Relation and 125 connectives were used to indicate Result category, which is the most frequently indicated category.

The study shows that Causal Relations are the most frequently used relations by the Turkish learners. As stated before, in the Causal Relations, Result category is the most frequently used one. The reason may be text type effect. Since participants wrote an argumentative text, the needed to convince the reader by justifying their ideas using cause-effect relations.

Sanders (2005) states that although Causal Relations are considered linguistically complex structures, processing research reveals that Causal Relations require less processing effort and result in more accessible representations than less complex structures like Additive Relations. He adds that language users tend to connect information causally and connected representations are established when readers can relate events to their causes. (Noordman & Vonk, 1998; Graesser et al., 1994; Magliano et al., 1994) He elaborates this view stating that humans prefer seeing structure, patterns and organization and avoid accidentalities. It is a general cognitive principle, well-known from areas like visual perception –for example, in Gestalt Psychology (Van Lier, Van der Helm & Leeuwenberg, 1994). If this is a general cognitive principle, then it is not surprising to find the indicators of this cognitive principle in the essays of the participants of the current study. Another reason, which is related to this view, may be that consciously or unconsciously, participants think cause-effect relations are better understood by readers, and they use this type of relation frequently to produce clear and reader-friendly texts. It can be said that after the text type effect, this cognitive principle has impact on the relations used by the participants.

Only one connective indicated Causal Relation Respective category was used in this study. The reason for this can be the low frequency of Causal Relation, Respective category connectives in English. (See BNC)

4.2.3. The connectives used for Additive Relations

As for the Additive Relations, the number and percentages of each connective used to indicate Additive Relations can be seen in Table 11.

Table 11. Number and Percentages of Additive connectives

Connective	Additive simple, positive	Additive simple, negative	Complex emphatic	Complex de-emphatic	Appositive	Comparative
And	191 (%85)	-	-	-	-	-
And also	6 (100%)	-	-	-	-	-
Also	13 (100%)	-	-	-	-	-
Not only but also	11 (100%)	-	-	-	-	-
Or	17 (100%)	-	-	-	-	-
On the other hand	1(9%)	-	-	-	-	-
But	1(1%)	-	-	-	-	-
Then	1 (14%)	-	-	-	-	-
Besides	-	-	3(100%)	-	-	-
Furthermore	-	-	3 (100%)	-	-	-
Moreover	-	-	14 (100%)	-	-	-
What is more	-	-	1 (50%)	-	-	-
By the way	-	-	-	1 (100%)	-	-
For example	-	-	-	-	20 (100%)	
I mean	-	-	-	-	3 (100%)	-
For instance	-	-	-	-	3 (100%)	-
Namely	-	-	-	-	1(100%)	-
That's to say	-	-	-	-	2 (100%)	-
While	-	-	-	-	-	1 (7%)
Whereas	-	-	-	-	-	1 (100%)

Some findings that the table shows are as follows:

191 'and' i.e., 85% of all the 'and's were used to indicate Additive Relation, Additive Simple category. 20 'For example's i.e., 100% of the 'For example's used in the study indicates Additive Relation, Appositive category. The number and percentages of each Additive Relation category used in the current study can be seen in Table 12.

Table 12. Number and percentages of each Additive Relation category

ADDITIVE	N (%)
Additive simple, Positive	241 (82%)
Appositive	29 (10%)
Complex Emphatic	21 (7%)
Comparative	2 (1%)
Complex de-emphatic	1 (-)
Additive simple, Negative	- (-)
TOTAL	**294 (100%)**

As can be seen in the table, 294 connectives were used to indicate Additive Relation and 241 connectives were used to indicate Additive Simple category, which is the 82% of the all Additive Relation categories.

The Causal Relation is followed by the Additive Relation. The most frequently used Additive Relation category is Additive Simple, positive relation. The present study supports Ying (2007) study in that both studies show that non-native speakers prefer the additive function of 'and'. Both studies are similar regarding the use of 'and' in that Turkish learners use the additive function of 'and', which is the unmarked function i.e., the core function of 'and' more often than the other functions . This may mean two things: Not all participants were aware of different functions of 'and'or since the nonbasic functions of this connective are the main function of other connectives, students substituted them for the connectives representing those functions as the core function. For instance, instead of using 'and' to indicate Causal Relation result category, most students may prefer using resultive connectives such as 'so' or 'therefore'.

Connectives indicating Additive simple, negative category were not used at all in the current study. This may be because of their negative polarity. According to Spooren & Sanders (2008), negative and negative Causal Relations are more complex than their positive counterparts. That the Turkish participants did not use Additive simple negative category may support the view that negative polarity relations are more complex than positive polarity relations.

The study partially supports Chen (2006) study in that Additive Relation connectives are used more than Adversative Relation connectives by EFL learners. As for adversative relations, Hubbard (1989) states that discontinuatives i.e., adversatives are an aspect of better writing quality. The fact that the participants of the present study do not use so much discontinuatives may show us that their writing quality is not so good. In an argumentative essay, students need to show counter arguments and defend their own view. Discontinuative connectives help to do this. If Turkish EFL learners use these connectives less than additives and causals, it may mean that they do not use so much counter argument in their essay, which may be an indication of low quality of an argumentative essay. The study showed that the most frequently used connective for adversative relations is 'but'.

4.2.4. The connectives used for Adversative Relations

As for adversative relations, the number and percentages of each connective used to indicate adversative relations can be found in Table 13.

Table 13. Number and percentages of Adversative connectives

Connective	Concessive	Contrastive Internal (Avowal)	Contrastive External	Corrective	Dismissal
And	2 (1 %)	-	3 (1%)	-	-
While	1 (7%)	-	3 (20%)	-	-
Even though	1 (100%)	-	-	-	-
On the other hand	1(9%)	-	-	-	-
Yet	1 (100%)	-	-	-	-
Although	15 (83%)	-	-	-	-
But	119 (78%)	-	25 (16%)	-	-
However	17 (77%)	-	4 (18%)	-	-
Nevertheless	3(75%)	-	-	-	-
Actually	-	3 (100%)	-	-	-
In fact	-	5 (100%)	-	-	-
But on the other hand	-	-	2 (100%)	-	-
On the other hand	-	-	9 (82%)	-	-
Instead of this	-	-	-	1 (100%)	-
On the contrary	-	-	-	2 (67%)	-
At least	-	-	-	4 (80%)	-

Some findings that the table shows are as follows:

119 'But' i.e., 78% of all the 'but's were used to indicate Adversative relation, Concessive category, and 25 of it i.e., 16% of it was used for Adversative Relation,

Contrastive external category. 9 of the 'On the other hand's i.e., 82% of the 'on the other hand's used in the study indicate Adversative Relation Contrastive external category. The number and percentage of each Adversative Relation category used in the current study can be seen in Table 14.

Table 14. Number and percentages of each Adversative Relation category

ADVERSATIVE	N (%)
Concessive	160 (72%)
Contrastive External	46 (21%)
Contrastive Internal (Avowal)	8 (4%)
Corrective	7 (3%)
Dismissal	- (-)
TOTAL	221 (100%)

The table shows that 221 connectives were used to indicate Adversative Relation and 160 connectives were used to indicate Concessive category, which is the most frequently indicated adversative category.

The study indicates that participants of the study used the concession sense of 'But' more frequently than its contrast sense. Whether this means that Turkish learners use the unmarked meaning of 'but' is not clear because the unmarked meaning of 'but' in English is ambiguous. One may think that contrast is the unmarked meaning of 'but' because concession (denial of expectation) is more complex than contrast. "If you want to reduce one to the other, it does make more sense to say that contrast is the basic meaning, with the other interpretations derived pragmatically." (Hall,2004) Yet, it seems there is stronger evidence for concession as the unmarked meaning of 'but' because 'but' cannot be accepted in contexts where connectives that can be used for contrast such as 'whereas' and 'in contrast' are appropriate.

1. *A: Why did your landlord send round the one-armed plasterer again when the other guy works twice as fast?*
   B: Because he's half price, whereas/while the other guy charges more to work on a weekend.
   B': Because he's half price; the other guy, in contrast/on the other hand, charges more to work on a weekend.
   B'':?? Because he's half price, but the other guy charges more to work on a weekend. (Hall, 2004,p.219)

"If 'but' means contrast, there would seem to be no reason why in the example above, it can't replace other indicators of contrast." (Hall 2004, p.219) This shows us that reducing contrast to concession makes more sense than accepting contrast as the unmarked meaning of 'but'. If the unmarked meaning of 'but' is denial of expectation, the study shows that the participants in this study used the unmarked meaning of 'but'.

The study also supports Kies (1993) view. Kies asserts that there is a shift towards using 'but' as an adverbial. Kies suggests that

> semantically, the coordinator 'but' strongly implies contrast or negation, whereas the hallmark of the adverbial 'but' is its implied concession. …Through its ability to imply concession, the adverbial 'but' in contemporary American English is moving in the direction of the adverbial 'but'… The easy possibility of paraphrase, substitution, by concessive adverbials like 'however' and 'all the same' or by concessive conjuncts like 'yet', 'though', and 'although' lends support to this semantic analysis. (Kies,1993)

According to him, concessive meaning belongs only in the domain of the adverbial 'but'. Since the current study shows that students use the concession meaning of 'but' more frequently than the contrast meaning, it can be said that students use 'but' like an adverbial rather than a conjunct.

The study shows that participants used just a few types of connectives to indicate Adversative Relation, concession category. For the concession category, participants used 'but' more often than other concession category connectives. 'However' is used less than 'but'. 'Yet' and 'Nevertheless' were rarely used and 'Nonetheless' was not used at all. When looked at the BNC, one can see that 'nonetheless' is not frequent in native speaker data. It has particularly very low frequency in academic texts. As for 'nevertheless', it has also low frequency in academic texts compared to other connectives. It can be concluded that one reason for the less frequent use of connectives other than 'but' for concession relation in the current study can be due to the low frequency of those connectives in English compared to 'but'. Another reason may be that students may not have acquired the meaning of each of the concession relation

connective. For example, they may not know that 'nevertheless' shows exception in Kehler (2002, 2004) terms. If learners feel that they do not know the exact meaning of a particular connective, they may avoid using it.

No connective was found to indicate adversative relation, dismissal category in the students' essays. The reason for this may be their low frequency in English. When looked at the BNC, dismissal category connectives will be found less than most of the other connectives. According to Altenberg (2002) in the use of 'anyway', 'anyhow', 'in any case', 'in any event', "S2 provides an explanation for some event or circumstance conveyed by S1, but instead of serving as a mere reason for the state of affairs expressed in S1, it dismisses this as irrelevant or unimportant". 'Anyway' or 'anyhow' can also have topic-resuming function. "In both cases it can be said to dismiss the preceding matter as irrelevant" Altenberg (2002). Those connectives are more common in spoken language and this can be another reason for not finding these connectives in the participants' essays.

The study shows that adversative relations are not used as much as Causal and Additive Relations. The reason may be that it has negative polarity. "The primitive of polarity is a well-known factor in psycholinguistic literature: for instance, negative polarity utterances are processed more slowly than their positive counterparts (Wason and Johnson-Laird, 1972; H.Clark,1974 cited in Knott & Sanders, 1998)" This can be one of the reasons indicating why connectives showing Adversative Relations are less commonly found in the study compared to connectives indicating Additive and Causal Relations. This also explains why additive negative category connectives are not found in the study.

4.2.5. The connectives used for Temporal Relations

Table 15. shows the number and percentages of each connective used to indicate Temporal Relations.

Table 15. Number and percentages of Temporal connectives.

Connective	Temporal, simple	Conclusive	Correlative	Temporal, Complex	Here&Now
After	8(100%)	-	-	-	-
After that	3(75%)	-	-	-	-
While	10 (67%)	-	-	-	-
When	73(100%)	-	-	-	-
And then	1 (100%)	-	-	-	-
At the same time	1 (100%)	-	-	-	-
Before	1 (100%)	-	-	-	-
Next	1 (50%)	-	1 (50%)	-	-
Then	5 (72%)	-	-	-	-
Finally	-	1 (8%)	7 (54%)	-	-
And finally	-	-	1 (100%)	-	-
First	-	-	2(100%)	-	-
Firstly	-	-	21 (100%)	-	-
Secondly	-	-	2 (100%)	-	-
First of all	-	-	23% (97%)	-	-
Meanwhile	-	-	-	2(100%)	-

73 'When' i.e., 100% of all the 'when's were used to indicate Temporal Relation, Temporal simple category. 10 'While' i.e., 67 of all this connective were used to show Temporal Relation, Temporal Simple category.

The number and percentages of each Temporal Relation category used in the current study can be found in Table 16.

Table 16. Number and percentages of each Temporal Relation category

TEMPORAL	N (%)
Temporal, simple	103 (63%)
Correlative	57 (35%)
Temporal Complex	2 (1%)
Conclusive	1 (1%)
Here&Now	- (-)
TOTAL	163 (100%)

The table indicates that in Temporal Relations, Temporal simple was the most frequently used category. 103 connectives, which constitute the 63% of the connectives indicating Temporal Relation categories, were used for this relation. Few temporal complex, and conclusive categories were used. View of Ramasawmy (2004) may help to explain why those relation categories are not frequently found in the participants' essays, which are argumentative in nature.

> Narrative compositions trigger more temporal conjunctives than expository compositions do. The occurrence of a greater density of temporal conjunctives in the narrative texts than that of their expository counterparts can be explained by the fact that narrative compositions are normally associated with chronological sequence relations to signal events, unlike expository compositions which are essentially argumentative in character. (Ramaswamy, 2004)

Similarly, the reason for using only one connective in conclusive sense can be due to the nature of the essay the participants wrote. Conclusive category, from Halliday & Hasan's view, shows the last step of a process. This type of use may be more frequent in an essay describing a process rather than an argumentative essay.

No connective was used for Temporal Relation, here and now category. When possible reasons are looked for, it was seen that here and now category relation connectives have low frequency in English as shown in the British National Corpus.

ICLE (International Corpus of Learner English) was used to see whether learners from different L1s use the particular connectives that are not used or used very infrequently by the participants in the current study. Here and Now, Dismissal and Temporal Complex category connectives were investigated in the ICLE. The ICLE shows that, Here and Now category connectives are very infrequent. 'Up to now' was used by Italian learners only 6 times, 'Hitherto' was used by German and Polish learners twice, and it was used by Swedish learners of English only once. 'Up to this point', 'henceforward', and 'hereunder' was not used at all by students of any L1. This may show that nonuse of here and now category connectives is a general tendency of the EFL learners regardless of their L1. This may be because they are not frequent in

English, and for this reason, students are not exposed to those connectives in English. Another reason maybe that those connectives are used in formal language.

As for dismissal category connectives, they have a very low frequency in ICLE. 'Anyway' was used by students from all nationalities, yet it is not so frequent. 'Anyhow' and 'in any case' was used less than 'anyway'. 'Anyhow' was not used at all by Bulgarian, Czech, Dutch, German, Italian and Swedish learners. 'In any case' was not used at all by Dutch, Japanese, Polish, Tswana learners of English. 'Whichever way it is' was not used at all by any learners. (See ICLE)

The ICLE also showed that Temporal complex category connectives, are not so much preferred in learners' essays. They have very low frequency. The connective 'on another occasion' was not used at all by the students. 'After a time' was used only by French and German learners only once, and was not used at all by learners from other nationalities. 'Next day' was not used at all by Chinese, Polish, Spanish and Tswana learners of English. 'Meanwhile' was not used by Japanese and Norwegian learners of English. 'Until then' was not found in the essays of the Chinese, Czech, Italian, Japanese, Polish, Russian, Spanish, Swedish, and Tswana learners of English. ICLE shows that Chinese, Czech, Italian, Japanese, Polish, and Russian learners of English did not use 'at this moment' in their essays. (See ICLE)

These findings show that less frequent or non use of the connectives showing those relations is not only seen in the essays of the Turkish learners involved in this study, but also seen in the essays of the learners of English with different L1s. The study shows that frequency of occurrence of connectives in English is an important factor in their occurrence in L2 writing.

4.2.6. The connectives used for Summative Relation

Finally, Table 17. indicates the number and percentages of the connectives indicating Summative Relation.

Table 17. Number and percentages of Summative connectives

Connective	N(%)	Connective	N(%)
As a result	5 (71%)	In brief	1 (50%)
Consequently	1 (17%)	In short	3 (100%)
Finally	5 (39%)	To sum up	13 (100%)
In conclusion	23 (92%)	As a conclusion	4 (100%)
All in all	5(100%)	Briefly	2 (67%)

The table shows that 23 'in conclusion's i.e., 92% of all the 'in conclusion's indicates Summative Relation, and 13 'to sum up' i.e., 100% of it indicates Summative Relation. The Summative Relation was shown by 62 connectives.

The relations that the participants intended to show by using connectives were not understood in 38 tokens. Those connectives could not be placed under one of the Halliday & Hasan (1976) coherence relations. The number and percentages of those connectives will be given in Table 18.

Table 18. Connectives in the Relation not understood category

Connective	N(%)	Connective	N(%)
Because	6 (16%)	Therefore	1 (3%)
But	6 (16%)	However	1 (3%)
And	5 (14%)	At least	1 (3%)
For example	3(8%)	In conclusion	1 (3%)
Although	3 (8%)	As	1 (3%)
If	2 (5%)	Thus	1 (3%)
So	2 (5%)	First of all	1 (3%)
What is more	1 (3%)	After that	1 (3%)
That is	1 (3%)	In brief	1 (3%)

The reason for the incomprehensibility of the relations indicated by those connectives will be mentioned in the discussion section of the 2nd research question because the 'Relation not understood category" was coded mainly for the 2nd research question.

4.3. The Appropriate and Inappropriate Uses of the Connectives

4.3.1. Results

Table 19. shows the number and percentage of each connective that was used appropriately, misused, overused, underused, and the Relation not understood category per connective.

Table 19. Appropriate and inappropriate use of the connectives

Connective	Appropriate Uses	Inappropriate Uses	Inappropriateness Categories			
			Misuse	Overuse	Underuse	Relation not understood
And	203 (90%)	22(10%)	2(1%)	3(1%)	12(5%)	5(2%)
But	140 (92%)	12(8%)	2(1%)	3(2%)	1(1%)	6(4%)
If	89 (98%)	2(2%)	-	-	-	2(2%)
So	75(87%)	11(13%)	5(6%)	4(5%)	-	2(2%)
Because	74(84%)	14(16%)	1(1%)	4(5%)	3(3%)	6(7%)
When	73(100%)	-	-	-	-	-
In conclusion	23(92%)	2(8%)	1(4%)	-	-	1(4%)
First of all	13(57%)	10(43%)	9(39%)	-	-	1(4%)
However	19(86%)	3(14%)	2(9%)	-	-	1(5%)
Firstly	15(71%)	6(29%)	6(29%)	-	-	-
For example	13(65%)	7(35%)	2(10%)	2(10%)	-	3(15%)
Although	14(78%)	4(22%)	-	1(6%)	-	3(17%)
Or	17(100%)	-	-	-	-	-
Therefore	13(87%)	2(13%)	-	1(7%)	-	1(7%)
While	15(100%)	-	-	-	-	-
Moreover	5(36%)	9(64%)	8(57%)	1(7%)	-	-
Also	-	13(100%)	13(100%)	-	-	-
To sum up	13 (100%)	-	-	-	-	-
Finally	13(100%)	-	-	-	-	-
Secondly	2(100%)	-	-	-	-	-
In order to	12(100%)	-	-	-	-	-
Not only but also	11(100%)	-	-	-	-	-
On the other hand	8(73%)	3(27%)	2(18%)	1(9%)	-	-
After	8(100%)	-	-	-	-	-
Even if	8(100%)	-	-	-	-	-
As a result	2(29%)	5(71%)	5(71%)	-	-	-
Then	1(14%)	6(86%)	5(71%)	1(14%)	-	-
Consequently	-	6(100%)	6(100%)	-	-	-
And also	5(83%)	1(17%)	-	1(17%)	-	-
In addition	6(100%)	-	-	-	-	-
Because of this	5(100%)	-	-	-	-	-
All in all	5(100%)	-	-	-	-	-
At least	4(80%)	1(20%)	-	-	-	1(20%)
In fact	4(80%)	1(20%)	1(20%)	-	-	-

Connective	Appropriate Uses	Inappropriate Uses	Inappropriateness Categories			
			Misuse	Overuse	Underuse	Relation not understood
After that	3(75%)	1(25%)	-	-	-	1(25%)
As	3(75%)	1(25%)	-	-	-	1(25%)
Since	4(100%)	-	-	-	-	-
In addition this	2(67%)	1(33%)	-	1(33%)	-	-
As a conclusion	-	4(100%)	4(100%)	-	-	-
Briefly	2 (67%)	1(33%)	-	-	1(33%)	-
In short	3(100%)	-	-	-	-	-
Actually	3(100%)	-	-	-	-	-
On the contrary	2(67%)	1(33%)	1(33%)	-	-	-
I mean	3(100%)	-	-	-	-	-
Besides	1(33%)	2(67%)	2(67%)	-	-	-
For instance	3(100%)	-	-	-	-	-
Furthermore	1(33%)	2(67%)	2(67%)	-	-	-
In brief	1(50%)	1(50%)	-	-	-	1(50%)
In other words	2 (100%)	-	-	-	-	-
That's to say	2(100%)	-	-	-	-	-
Thus	-	2(100%)	1(50%)	-	-	1(50%)
What is more	-	2(100%)	1(50%)	-	-	1(50%)
First	2(100%)	-	-	-	-	-
Next	1(50%)	1(50%)	1(50%)	-	-	-
So as to	2(100%)	-	-	-	-	-
In this case	2(100%)	-	-	-	-	-
Yet	1(100%)	-	-	-	-	-
Instead of this	1(100%)	-	-	-	-	-
By the way	-	1(100%)	1(100%)	-	-	-
Namely	1(100%)	-	-	-	-	-
That is	-	1(100%)	-	-	-	1(100%)
And finally	1(100%)	-	-	-	-	-
And then	1(100%)	-	-	-	-	-
At the same time	1(100%)	-	-	-	-	-
At this point	-	1(100%)	1(100%)	-	-	-
Meanwhile	1(100%)	-	-	-	-	-
For	1(100%)	-	-	-	-	-
Before	1(100%)	-	-	-	-	-
Whereas	1(100%)	-	-	-	-	-
Even though	1(100%)	-	-	-	-	-
But on the other hand	2(100%)	-	-	-	-	-
TOTAL	966(86%)	163(14%)	84(7%)	23(2%)	18(2%)	38(3%)

The results of the study indicate that 966 connectives (86%) were used appropriately. 163 connectives (14%) were used inappropriately. 84 connectives (7%) were misused

and 23 connectives (2%) were overused. The number of the underused connectives is 18 (2%). The relation denoted by 38 connectives used in the study was not understood.

The comparison of the appropriate and inappropriate uses of connectives can be seen in Figure 3.

The Distribution of the Appropriate and Inappropriate Uses
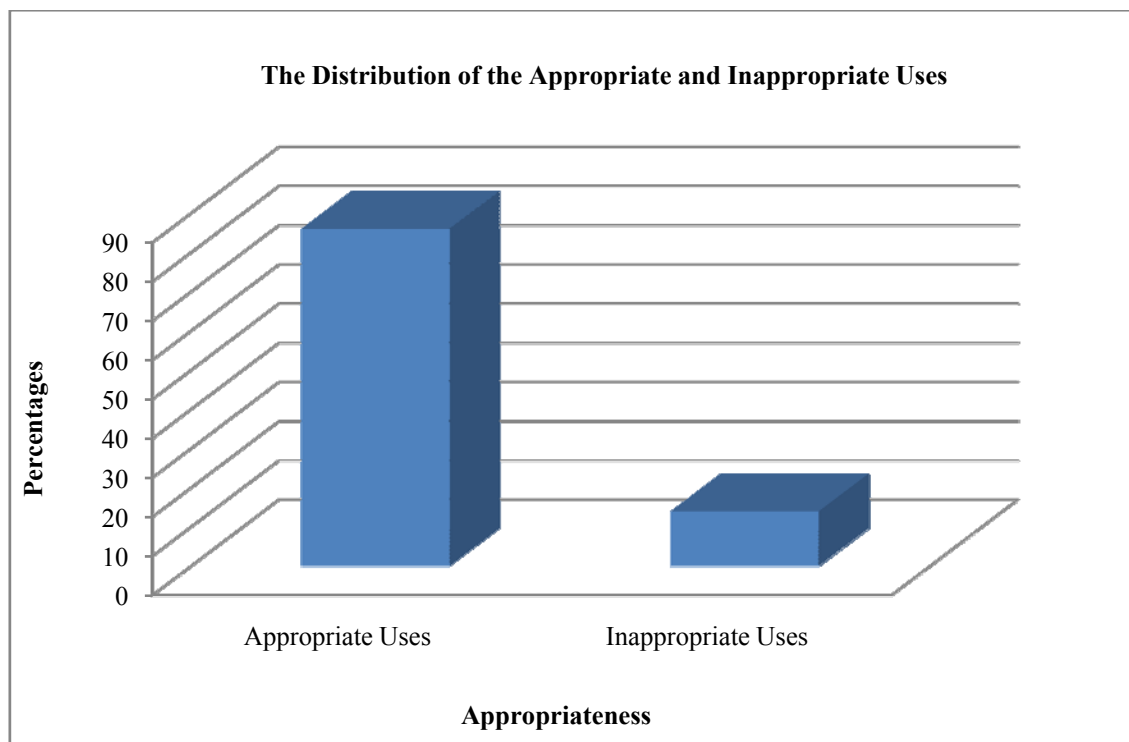
Figure 3. Distribution of the appropriate and inappropriate uses

As can be seen in the table and in the graph, total number of appropriately used connectives is 966, which is the 86% of the connectives. The number of inappropriately used connectives is 163, which is the 14% of the connectives.

The number and percentages of each inappropriate use category can be found in Table 20.

Table 20. Number and percentages of each inappropriate use category

Appropriateness Category	N (%)
Misuse	84 (52%)
Overuse	23 (14%)
Underuse	18 (11%)
Relation not understood	38 (23%)
TOTAL	163

As can be seen in the table, 163 connectives were used inappropriately. Among the inappropriately used connectives, 84 i.e., 52% was misused, 23 i.e., 14% was overused, and 18 i.e., 11% was underused. The relation was not understood for 38 connectives i.e., 23% of the connectives. These findings are also presented in Figure 4.
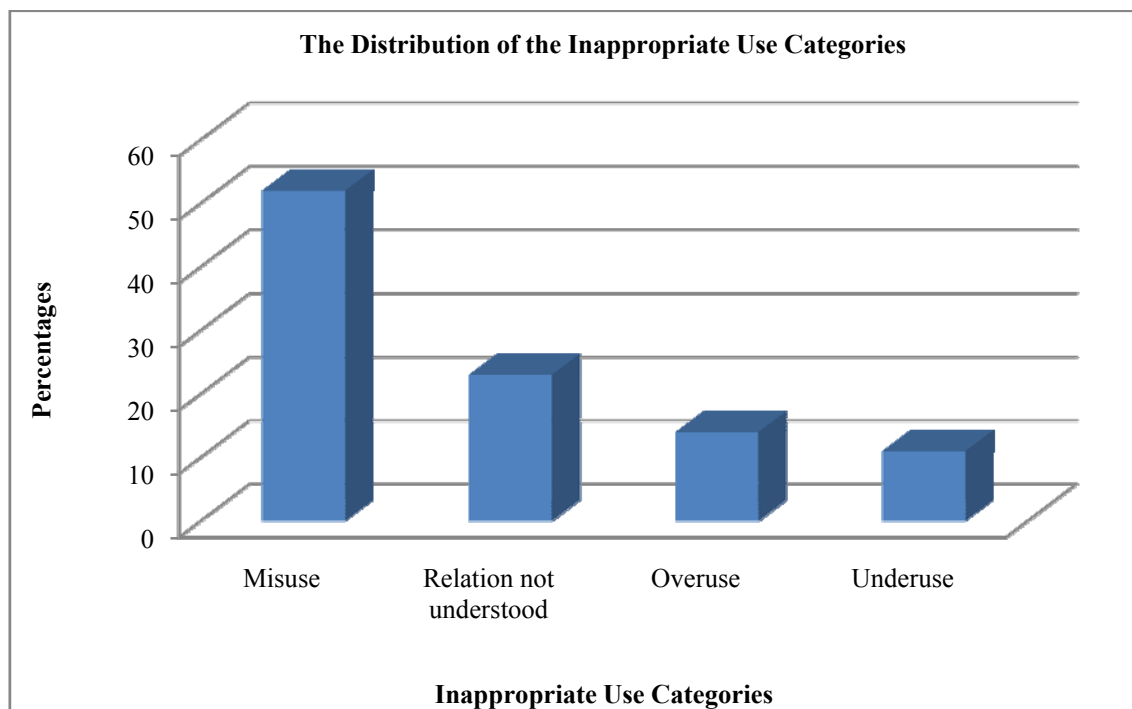
Figure 4. Distribution of the inappropriate uses

4.3.2. Comparison of connective use of learners with different L1s in terms of appropriateness

Half of the inappropriately used connectives were misused. This means that the meanings of some connectives have not been acquired by the participants. For example, they use 'moreover' or 'furthermore' for 'in addition'. This may be because all those connectives are additive connectives and students think that they can be used interchangeably. They may think that 'in addition' and these connectives have the same sense. In order avoid repetition of the same connective, they use those connectives interchangeably just to use a variety of connectives in their essays. The study also showed that 'then' may be problematic for Turkish students and this supports Tickoo (2002) study. Some Turkish students use 'then' for Additive Relation.

> 2. *University degree doesn't guarantee your future. But you will have a good job most probably with a good education. You will earn more money. Then you may have a social status…*   *S1*   *S2*

In the example above, the student used 'then' to indicate the Additive Relation between S1 and S2. The reason for the misuse can be L1 transfer. The connective 'then' is translated into Turkish 'sonra', which shows both temporal and Additive Relation depending on the context. Use of 'sonra' for additive relation is also mentioned in Göksel & Kerslake (2005).

Another finding is that students use 'as a result' to indicate conclusion rather than to indicate result. This may be because students may not know the difference between result relation and showing how to conclude. Another reason may be that the words 'result' and 'conclusion' are both translated in Turkish as 'sonuç'. This can be seen in the below shortened essay:

> 3. *In our country university education is important. If you are an university student, everybody think that you are clever and you going to be an important person. For this reason most of the students want to go to university. I think …*

First of all, if you graduate from university, you will get a good job and you will earn money. Secondly, people will think that … ..

***As a result,** people should go to university for their future. If they go to university their life will be better in the future.*

In the last paragraph, the student used 'as a result' to indicate a summative relation or to reach a conclusion. The sentence does not indicate a result, it indicates conclusion. Since 'as a result' must normally be used to indicate Causal Relation Result category, it is misused in this sentence. A connective indicating summative category e.g., 'In conclusion' would be appropriate in this sentence. The connective has been used correctly in terms of grammar and punctuation rules.

Another inappropriate use is that students use 'as a conclusion' instead of 'in conclusion'. In addition, students tend use 'first of all' without referring to a point which must be stated in the thesis statement. In other words, they start a new paragraph with 'first of all' without creating a context beforehand.

The study showed that the most frequently underused connective is 'and'. For example, a student wrote:

4. *You can have a good status among people, you can have a comfortable life.*
         S1   *S2*

This sentence can be reformulated in English as follows:

5. *You can have a good status among people **and** you can have a comfortable life.*
         S1   *S2*

The underuse of 'and' may be due to transfer from Turkish. In Turkish, sometimes an additive simple relation between two events can be shown without using the additive connective 've' (the Turkish equivalent of 'and'). These types of sentences, where two or more semantically related sentences are connected to each other using a comma or semicolon, are called sequential sentences (sıralı cümleler) in Turkish (Beserek, 1991; Hengirmen, 1995; Karahan, 1999; Karasoy et.al., 2001)

The two sentences are stated one after the other and a comma is placed between the two sentences. The sentence written by the student can be translated into Turkish as follows:

6. *İnsanlar arasında iyi bir statüye sahip olabilir, rahat bir yaşam sürebilirsiniz.*
   (You can have a good status among people, you can have a comfortable life.)

Whether this type of use result from L1 influence should be investigated in future research.

As illustrated in Table. 20, 23 connectives were overused by the participants. There are studies in the literature supporting the overuse of connectives by learners of English. Milton and Tsang (cited in Granger & Tyson, 1996), in their corpus based study of Hong Kong students' use of connectives, conclude that there is high ratio of overuse of the entire range of logical connectives in their students' writing, in comparison to published English. Granger & Tyson (1996) study showed that 'moreover', was misused almost 50 percent of the time. The French learners used 'moreover' to reformulate or add a point, rather than to add a final powerful argument to convince the reader of a particular point. The current study partially supports Granger & Tyson (1996) study in that Turkish EFL learners also used 'moreover' to add a point rather than to add a final powerful point to convince the reader. The two studies contradict in that moreover is not one of the overused connectives by Turkish EFL learners. Significant overuse of 'indeed' by French nonnative speakers was found in their study, which is seen as the result of transfer of 'en effet', a very common connective in written French, to English. Connectives such as 'actually', 'indeed', 'of course' were overused by French and German learners of English in Granger & Tyson (1996) study. Their study showed that 'however', 'instead', 'though', 'yet', 'hence', 'then', 'therefore', 'thus' are the underused connectives by German and French EFL learners. Present study and Granger & Tyson (1996) study is different in this respect because the overused and underused connectives by Turkish EFL learners in the present study are different from the overused and underused connectives by German and French learners. This may be due to L1 effect or the particular emphasis that might be given to certain connectives in different instructional settings.

The present study is similar to Bolton et.al (2002) because dismissal connectives are not found in the productions of in those three learner groups. This may be because those connectives are not used frequently in academic writing. Overuse of 'So','then' and 'therefore' are found among the three groups of learners. 'And', 'but', 'therefore', 'moreover', 'on the other hand' are commonly overused connectives by the Turkish and Hong Kong learners. 'So', 'then', 'therefore', 'thus', and 'also' are the commonly overused connectives by the Hong Kong and British learners. Those overused connectives are not are not frequent in the essays written by Turkish learners in the current study. When a table for the overused connectives by the three learner groups is created, some similarities can be seen.

Table 21. Comparison of the Turkish, Hong Kong & British learners

Turkish	Hong Kong	British
So	So	So
Then	Then	Then
Therefore	Therefore	Therefore
And	And	Though
But	But	Finally
Moreover	Moreover	in turn
On the other hand	On the other hand	Furthermore
Because	Thus	Thus
For example	Also	Also
And also	In fact	Firstly
In addition to this	-	Lastly
Although	-	-

The study shows that in 23% of the sentences where a connective has been inappropriately used, the relation that the sentence indicates is not clear. This may be due to the inappropriate use of other cohesive ties i.e., reference, lexical cohesion, and substitution. The fact that the category of Relation not understood is nearly the ¼ of the all inappropriate uses shows that the participants have some problems with expressing themselves in unplanned written production. In other words, appropriate and correct uses of cohesive ties do not occur automatically in their written production. For this reason, what those learners write and what they want to write does not match to each other, and they cannot always produce coherent texts.

4.4. The Correct and Incorrect Uses of the Connectives

4.4.1. Results

Table 22. shows the number of correct and incorrect uses of each connective used by the participants.

Table 22. Correct and incorrect uses of the connectives

Connective	Correct Use	Incorrect Use	Distribution of the Connectives on the basis of Incorrect Use Categories		
			Grammatical Error	Punctuation Error	Both Gram. & Punctu. Error
And	208(98%)	5(2%)	2(1%)	3(1%)	-
But	126(83%)	25(17%)	3(2%)	22(15%)	-
If	74(81%)	17(18%)	4(4%)	13(14%)	-
So	56(65%)	30(35%)	4(5%)	26(30%)	-
Because	15(18%)	70(82%)	40(47%)	5(6%)	25(29%)
When	70(96%)	3(4%)	1(1%)	2(3%)	-
In conclusion	21(84%)	4 (16%)	-	4(16%)	-
First of all	21(91%)	2(9%)	-	2(9%)	-
However	15(68%)	7(32%)	-	7(32%)	-
Firstly	20(95%)	1(5%)	-	1(5%)	-
For example	10(50%)	10(50%)	-	10(50%)	-
Although	14(78%)	4 (23%)	1(6%)	3(17%)	-
Or	14(82%)	3(18%)	-	3(18%)	-
Therefore	10(67%)	5(33%)	-	5(33%)	-
While	13(87%)	2(13%)	-	2(13%)	-
Moreover	11(79%)	3(21%)	-	3(21%)	-
Also	-	13(100%)	13(100%)	-	-
To sum up	13(10%)	-	-	-	-
Finally	12(92%)	1(8%)	-	1(8%)	-
Secondly	2(100%)	-	-	-	-
In order to	11(92%)	1(8%)	-	1(8%)	-
Not only but also	11(100%)	-	-	-	-
On the other hand	8(73%)	3(27%)	-	3(27%)	-
After	8(100%)	-	-	-	-
Even if	7(88%)	1(13%)	1(13%)	-	-
As a result	6(86%)	1(14%)	-	1(14%)	-
Then	3(43%)	4(57%)	-	4(57%)	-
Consequently	5(83%)	1(17%)	-	1(17%)	-

Connective	Correct Use	Incorrect Use	Distribution of the Connectives on the basis of Incorrect Use Categories		
			Grammatical Error	Punctuation Error	Both Gram. & Punctu. Error
and also	3(50%)	3(50%)	-	3(50%)	-
In addition	6(100%)	-	-	-	-
Because of this	3(60%)	2(40%)	-	2(40%)	-
All in all	5(100%)	-	-	-	-
At least	5(100%)	-	-	-	-
In fact	2(40%)	3(60%)	-	3(60%)	-
Nevertheless	3(100%)	-	-	-	-
After that	3(75%)	1(25%)	-	1(25%)	-
As	2(50%)	2 (50%)	1(25%)	1(25%)	-
Since	1(25%)	3(75%)	1(25%)	1(25%)	1(25%)
In addition this	3(100%)	-	-	-	-
As a conclusion	4(100%)	-	-	-	-
Briefly	1(50%)	1(50%)	-	1(50%)	-
In short	3(100%)	-	-	-	-
Actually	-	3(100%)	-	3(100%)	-
On the contrary	-	3(100%)	-	3(100%)	-
I mean	1(33%)	2(67%)	-	2(67%)	-
Besides	3(100%)	-	-	-	-
For instance	2(67%)	1(33%)	-	1(33%)	-
Furthermore	3(100%)	-	-	-	-
In brief	1(50%)	1(50%)	-	1(50%)	-
In other words	1(50%)	1(50%)	-	1(50%)	-
That's to say	2(100%)	-	-	-	-
Thus	1(50%)	1(50%)	-	1(50%)	-
What is more	1(5%)	1(50%)	-	1(50%)	-
First	2(00%)	-	-	-	-
Next	2(100%)	-	-	-	-
So as to	1(50%)	1 (50%)	-	-	1(50%)
In this case	2(100%)	-	-	-	-
Yet	-	1(100%)	-	-	1(100)
Instead of this	-	1(100%)	-	1(100%)	-
By the way	-	1(100%)	-	1(100%)	-
Namely	1(100%)	-	-	-	-
That is	-	1(100%)	-	1(100%)	-
And finally	1(100%)	-	-	-	-
And then	-	1(100%)	-	1(100%)	-
At the same time	-	1(100%)	1(100%)	-	-
At this point	1(100%)	-	-	-	-

Connective	Correct Use	Incorrect Use	Distribution of the Connectives on the basis of Incorrect Use Categories		
			Grammatical Error	Punctuation Error	Both Gram. & Punctu. Error
Meanwhile	-	1(100%)	-	1(100%)	-
For	-	1(100%)	1(100%)	-	-
Before	1(100%)	-	-	-	-
Whereas	-	1(100%)	1(100%)	-	-
Even though	1(100%)	-	-	-	-
But on the other hand	-	2(100%)	1(50%)	1(50%)	-
TOTAL	855(77%)	256(23%)	75 (7%)	153 (14%)	28 (2%)

Figure 5. shows the comparison of correct and incorrect uses.
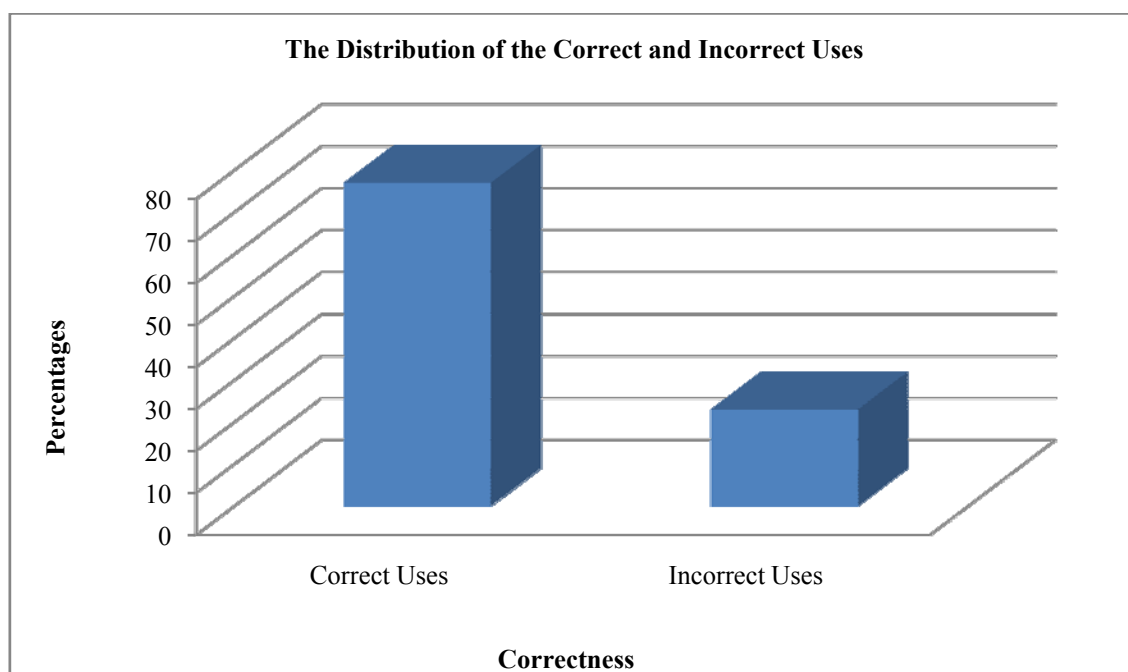
Figure 5. Comparison of the total correct and incorrect uses.

As can be seen both in the table and graph above 855 connectives were used correctly (77%) whereas 256 connectives (23%) were used incorrectly.

Table 23. shows the total incorrect uses for each incorrect use category.

Table 23. Comparison of the incorrect use categories

Correctness Category	N(%)
Punctuation Error	153 (60%)
Grammatical Error	75 (29%)
Both Grammatical&Punctuation Error	28 (11%)
Total	**256 (100%)**

The graphical representation of the incorrect uses can be seen in Figure 6.
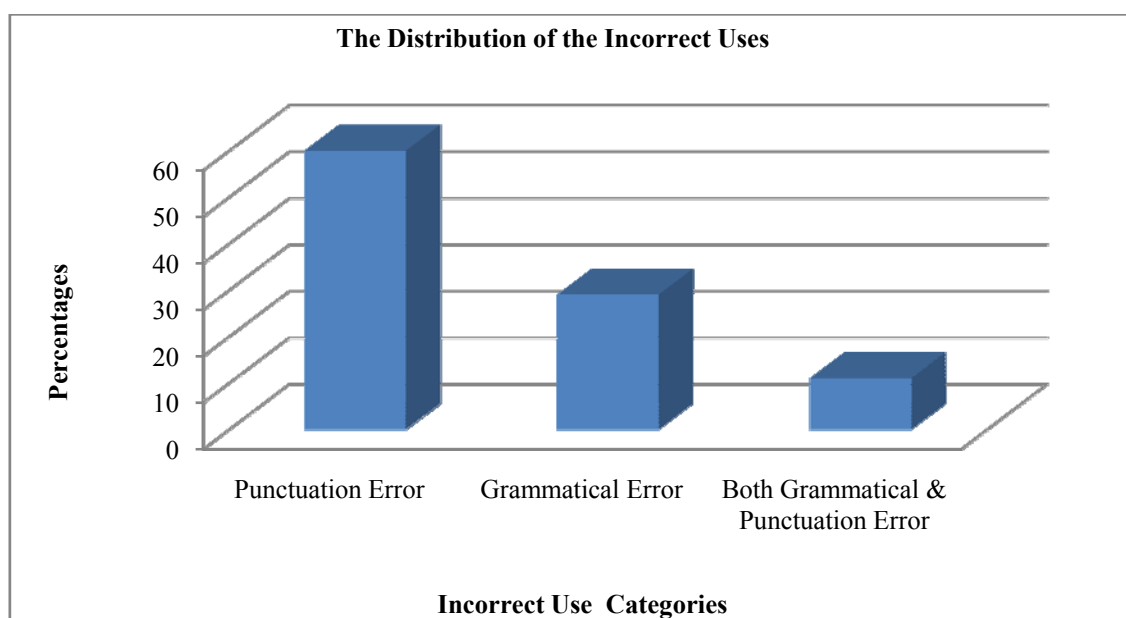
Figure 6. Comparison of the incorrect use categories

The study indicates that connectives were not correctly used in terms of structure i.e., in terms grammar and punctuation rules in 256 tokens. 75 i.e., 29% of the tokens where a connective was used incorrectly include a grammatical error regarding the use of the connective. In 153 tokens where a connective was incorrectly used i.e., in 60%, the use of the connective does not conform to the punctuation rules. 28 of the tokens where a connective was incorrectly used i.e., 11% of those tokens include both grammar and punctuation error regarding the use of the connective. The study showed that punctuation errors are more frequent than grammatical errors.

4.4.2. Comparison of connective use of learners with different L1s in terms of structural correctness

The study showed that punctuation errors were more frequent than grammatical errors. The reason for this finding can be that students did not receive instruction on the use of connectives and punctuation marks in the previous semester.

Most of the grammatical errors were seen in the use of 'because'. The current study supports Cho (1998) in that students cannot use 'because' correctly as in the example below:

   7. *There are bourses for help the students, but it rarely happens to have bourses.* **Because** *there are many conditions to have them.*

In the sentence above, the student use 'because' to indicate Causal Relation, Cause category and it was used appropriately. The use of 'because' includes grammatical error. The reason is that 'because' is a subordinator, but the subordinate clause stands on its own as if it is a separate sentence in the given example.

It is stated that the use of 'because' sentence initially is considered as typical characteristics of ESL writing (Schleppegrell, 1996). Schleppegrell (1996) asserts that because-clause functions as a coordinator rather than a subordinator in colloquial discourse. In other words, it is used to lead an independent clause, introduce a main point and provide additional information to what has been said. Like conjunctions 'however' and 'therefore', a separate intonational contour is assigned to the because-clause instead of connecting it intonationally to the prior statement. According to Schleppegrell (1996), the reason for the grammatical error involving 'because' can be the transfer of this conjunction strategy from speech to writing. The following example from Halliday & Hasan may be a good example for this type of use:

   8. *You aren't leaving, are you?* **Because** *I've got something to say to you.* (Halliday & Hasan, 1976, p.258)

Students receiving such an input may think that a separate sentence can begin with 'because', and they begin a new sentence with 'because'. This also explains why ESL

learners in classroom setting tend to answer using only a because-clause when they are asked the question 'Why?'. Similarly, one of the reasons for these erroneous uses may be transfer from Turkish. When the question "Neden?", "Niçin?", "Niye?" (Why?) is asked in Turkish, in general the answer begins with "Çünkü" (because).

Another reason for the grammatical error in the use of because can be that its Turkish equivalent 'çünkü' can be used sentence initially, intrasententially, and sentence finally in Turkish. Zeyrek & Webber (2008) states that "In Turkish, the linear ordering of coordinating conjunctions and subordinators and the clauses in which they occur shows some flexibility as to where in the clause they appear or as to the ordering of the clauses" as in the example below:

> 9. *Söz özgürlügünün belli yasalar, belli ilkeler çerçevesinde kalmak zorunda oldugunu biliyoruz. **Çünkü**, bütün özgürlükler gibi, belli sınırlar asılınca, baskalarına zarar vermek, baskalarının özgürlüklerini zedelemek söz konusu oluyor.*
> *(We know that freedom of speech should remain within the limits of certain laws and principles. **Because**, like all the other freedoms, when certain constraints are violated, one may harm others' freedom.)* (Zeyrek & Webber, 2008,p.69)

Ceylan (2005) study also supports this view. In her masters thesis, where she investigated the connectives used in narratives of a famous Turkish author, she found that the use of 'çünkü' is 34, 10, and 3 times as sentence initially, intrasententially, and sentence finally. The study shows that sentence initial use of 'çünkü' is more frequent than its other types of uses. This means that Turkish students transfer the sentence initial use of 'çünkü' to the use of 'because' in English because this is the way they signal this type of relation and category in Turkish.

This type of grammatical error i.e, writing a subordinate clause as an independent sentence is also seen other subordinates as in the following examples:

> 10. *One of the reasons why everybody should go to university or why university education is very important is that people need higher education so as to get a job and make money. **Since**, it is the nature and need of human to stay alive.*

> 11. *Let's begin with a lot of money. That's not clear. **Since** everybody can earn a lot of money by using different ways. But if you choose to go to university, you can earn much more money than the others without spending physical energy.*

12. At the same time, graduating from a university is not enough to get a good job.
As there are so many graduates that there seems no difference between us.

Finding the same type of error in the use of 'since' and 'as' must not be a coincidence. It seems the main reason of these errors is the L1 transfer. More specifically, the flexibility of the positions of the connectives and the tendency of using the subordinates such as 'because' (çünkü) mostly sentence initially affects the choice of the students while they are writing in English.

Another reason for the use of 'because' sentence initially may be that because-subordinate clauses do not represent iconic thoughts. According to Sanders et. al., (1992), use of 'because' for Causal Relation Cause category is nonbasic order. This means that it is not iconic.

The sentence below can make what is meant by this argument more clear.

*13. <u>She always fails</u> **because** <u>she does not study at all.</u>*

Q   *P*

In real world, the action of not studying (P) occurs before failing (Q). In other words, failing is the result of not studying. However, when 'because' is used to show reason, because-clause comes after the main clause i.e., Q (result) is stated before P (reason). Such a way of expressing a relation is not iconic. For this reason, it can be argued that this type of a relation is cognitively complex and marked, and this cognitive complexity can also be seen in its syntactic reflection. It can be argued that since this relation is both cognitively and syntactically marked, learners find this difficult. To make it easy to produce, learners first produce Q, and then they produce P as a separate statement. Since P occurs before Q in real world, it is retrieved from memory after Q i.e, Q is remembered before than P. And, this is reflected to the written language as two separate consecutive sentences where Q is stated first, and then P is stated as a separate sentence following Q. This view also explains why learners make similar mistakes in the use of 'since' and 'as'.

The errors occurring in subordination may be that these structures are more complex than adverbial connectives. Crystal (2003) defines complex sentence as follows:"In grammar, a term which in its most general application describes a sentence consisting of more than one clause. In somewhat narrower sense, it refers to a sentence consisting of a main clause and at least one subordinate clause." (Crystal 2003, p.90) Taking this definition into consideration, it can be stated that subordinate structures are complex structures. It seems students cannot produce syntactically and semantically complex sentences. They prefer writing simple and short sentences and they connect them using subordinate connectives like adverbial connectives, which is an erroneous usage.

The study reveals that, even if they are not so frequent, some grammar mistakes occur in coordination as in example 14. These errors may be the result of first language influence.

*14. There are lots of people graduating from university **but** aren't efficient in their departments.   S1   S2*

Since Turkish is a pro-drop language, null subject is possible in Turkish. In this sentence, the student does not use the subject 'they' because s/he possibly thinks that S2 does not need a subject because 'but' conjoins S1 and S2.

4.4.3.   Summary

This study investigated the use of connectives in unplanned written discourse by Turkish ELT department students. More specifically, the following research questions were investigated: 1.Which discourse connectives do Turkish ELT department students use? 2. For what coherence relations do Turkish ELT department students use those connectives? 3. How appropriately do they use those connectives? 4. How correctly do they use those connectives? The data was collected from 137 first year students taking Academic Writing and Report Writing course in the ELT B.A. program at Anadolu University, Education Faculty, Turkey in the spring semester of the 2007-2008 academic year. The participants were asked to write a well-developed argumentative essay in regular class hours. Then, a demographic questionnaire was distributed to the participants. The essays of some participants were excluded from the study based on

their answers in the demographic questionnaire. The remaining 132 students have been chosen as the main participants of the research. The connectives used by the participants were coded for each question both by the researcher and a native speaker rater. The adapted version of the Halliday& Hasan (1976) taxonomy of coherence relations was used while coding the coherence relations that the participants used using connectives. Cho (1998) was used while coding the appropriateness and correctness of the connectives. Goldvarb X statistics program was used by the researcher for the statistical analysis. The study revealed that learners do not use a large variety of connectives in their essays. The number and percentages of the appropriate uses is higher than the inappropriate uses. Misuses of some connectives have been found whereas underuse and overuse of the connectives are not so frequent. Similarly, the number and percentages of the correct uses is higher than the incorrect uses. The study showed that punctuation errors are more frequent than the grammatical errors.

CHAPTER 5

CONCLUSION AND IMPLICATIONS

In this thesis, how Turkish ELT department students use connectives in unplanned written discourse have been investigated by analyzing data from 132 Turkish ELT department students at Anadolu University, Turkey. The conclusion drawn from the findings of the study, and implications for ELT and future research can be found in this chapter.

5.1. Conclusion

The study shows that the number and percentages of the appropriate uses are higher than the number and percentages of the inappropriate uses. Similarly, the number and percentages of the correct uses is higher than the number and percentages of the incorrect uses. Yet, some misuses and grammatical and punctuation errors have been found. In this respect, the study supports previous studies which found that connectives were problematic for EFL learners. This study shows that connectives may still be a problem even when the learners are advanced level students enrolled in an ELT B.A program.

When the reasons of the results of the study are searched for, it can be said that there are more than one factor affecting how connectives are used by learners. Frequency of the connective in the input is very important and it can be considered as the major factor that affects the use of connectives. Yet, some connectives that are not so frequent in the BNC such as 'all in all', 'in conclusion', etc. have been found in the participants' essays. If learners received instruction on them in classes, this result can be expected. Modality i.e., spoken or written modes, text type, first language influence, syntactic and semantic complexity of the connective, and whether it is composed of single word or multi word can be considered the factors affecting the use of connectives.

It can be concluded that Turkish ELT department students do not use a large variety of connectives. There are five or six connectives that they prefer the most, and they do not use the others frequently. The results indicate that the students may not be aware of the different relations that connectives may indicate and they use the unmarked meaning of

the connectives. For this reason, it can be concluded that although the number of appropriate and correct uses is higher than the number of the inappropriate and incorrect uses, the participants' uses of connectives still cannot exactly conform to native speaker norms. Students may not be aware of certain relations and a variety of connectives that are used to indicate them, either because of their low frequency in English or they do not receive detailed instruction on them in courses. The study reveals that the participants do not use connectives that indicate complex relations.

The findings revealed that participants misused some connectives. The reason for the misuse of the connectives may be that students think that connectives indicating the same relation are interchangeable. The study also showed that even if the participants are advanced level students, they still make some structural errors i.e., grammatical and punctuation errors regarding the use of the connectives. Students' first language also affects how appropriately and correctly language learners use the connectives. The study revealed that there may be some grammatical problems, particularly in the use of 'because'-which is a common problem among the EFL learners from most languages. The study also showed that Turkish EFL learners do not know the difference between connectives types i.e., adverbial, subordinate, and coordinate connectives. They use adverbial connectives more frequently than subordinates. It seems that they find subordinates syntactically and semantically difficult.

Briefly, it can be concluded that participants' acquisition of connectives is not complete because of the following reasons: 1. Learners do not use a large variety of connectives in their essays. They use the most simple and the frequent ones in English 2. They misuse some connectives. 3. There are still some grammatical and punctuation errors, some of which stem from L1 transfer or from the cognitive and syntactic complexity of the relation that the connective indicates. 4. Learners use the unmarked meanings of the connectives more frequently than the marked meanings, and they do not know how to substitute the connectives with each other. 5. Learners are not aware of coordinate, subordinate and adverbial connective distinction. 6. Learners do not tend to use multiword connectives. 7. The common characteristics of Turkish ELT department students and EFL learners with different L1s in terms of the use of connectives is that

infrequent connectives in English are not preferred. 8. There is gap between what learners say and what they want to say. They cannot express themselves clearly because they do not use all cohesive devices appropriately or correctly in their essays. For this reason, even if learners may use a connective and they may think that they use it appropriately, the relation that connective indicates may not be understood by the reader because of lack of other cohesive ties among the sentences. This supports the view that only connectives themselves do not create meaning. Their use change the relation that the sentences indicate only if the sentences in which they are used are comprehensible, which is possible through the appropriate use of all cohesive ties. As stated by some researchers (Van Dıjk, 1977; Hoey, 1983; Mann, Matthiessen & Thompson, 1992; Schleppegrell, 1996), the interpretation depends on the overall sequence of clauses and the meanings they have rather than the explicit indication of the relationship between the parts of the text.

> Conjunctions are signals of clause relations but clause relations also clarify the meaning of conjunctions. It is only by examining the ideational content of the clauses, the sequential distribution of conjunctions, and the interactional contexts in which they occur, that we can identify the functions they perform and the meanings they contribute. Conjunctions can signal relationships and help the speaker to manage interaction, while contributing little propositional meaning" (Schleppegrell, 1996)

Briefly, the study signals that learners may have some problems with the use of various cohesive ties stated by Halliday & Hasan (1976) and this prevents learners from producing coherent texts. Even if the connective used by the learners are perceived appropriate and correct by them, this cannot be perceived in the same way by the reader because of the lack of general coherence in the discourse.

5.2.   Implications

5.2.1. Implications for ELT

The current study has significance in the field of ELT because it gives an idea about how Turkish advanced levels of EFL, more specifically, the Turkish ELT department students use connectives in essays. The present study guides teachers and material developers since the results of the study gives an idea about what should be taught about connectives in classrooms, in textbooks, and in other teaching materials.

When students are taught connectives in an instructional setting, students must be taught that modality (spoken vs. written), text type, and register have a role in the choice of connectives. In order to do this, students must read different text types in different registers, and they must also watch video or do some listening activities regarding connectives in order to be aware of which connectives are frequent in oral language and which ones must be used in written language. Authentic texts and native speaker corpora can be used in lessons to encourage appropriate and correct uses of connectives. To increase variety and the use of substitution in writing, teachers and material writers could adapt and use examples of substitutability and substitutability diagrams in the appendix of Knott (1996) study. Students can be asked to identify what connectives have been used in each context and the reason for these differences can be elicited from students.

To prevent misuse, overuse, and underuse, students can be given some sample student papers having those types of errors and they can be asked to correct them. Qi and Lapkin (2001) suggested that "the positive modeling of native-like writing may be more helpful to the learner than error correction." In addition, McLaughlin (1987) states "automatic processes come about as a result of "consistent mapping of the same input to the same pattern of activation over many trials" (McLaughlin 1987, p.134) Considering these suggestions, reading activities done by using authentic texts can be used more frequently than error correction so that students can acquire the appropriate and correct uses of connectives easily.

Students can be given some sentences where the relation is not stated by using a connective and they can be asked to place a connective in an appropriate place in the sentence to make the relation explicit.

Grammatical errors stemming from first language can be prevented using explicit instruction. Preemptive and negative feedback must be given in order to prevent fossilization. Connectives can be taught under subheadings as subordinators, adverbials, and coordinators, particularly in advanced level classes. Students can be given examples, and the meaning and syntactic differences of each of them can be elicited from learners. Textual input enhancement techniques can be used to show where to use subordinate connectives in a sentence.

The differences of connectives showing the same relations must be taught in context. For example, students may be given a passage and sentences including additives, and the semantic difference between those connectives can be elicited from the students. For instance, students can be asked to find the difference between 'and', 'moreover' 'furthermore', and whether they can be used interchangeably. In some cases, eliciting the translation of the connective to first language can be useful to prevent covert errors. The reason is that sometimes what students mean and what they write may not match. They may write something and it may make sense to the teacher whereas it is not exactly what the student means. In this case, the inappropriate use cannot be realized and corrected by the teacher, and fossilization may occur. Giving or eliciting the first language translation of particular connectives (if they exist in students' L1), can be useful to make things clear in the students' mind. For example, the translation of 'moreover' into Turkish is 'üstelik' or 'üstüne üslük' and this can be taught to students using translation.

Giving scrambled texts or paragraphs including or beginning with connectives can be used as exercises. Students can be given some sentences or clauses and some connectives, and they can be asked to complete the sentences or continue the discourse by using the appropriate connectives.

Comprehensibility of output is important to understand whether students are able to use connectives appropriately. Comprehensible output refers to learners being "pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately" (Swain 1985, p.249) Reformulation can be used so that students can express their ideas in a more comprehensible way in writing. Reformulation will help students to notice the gap between their own productions and the reformulated versions. Tutorials may help to achieve this aim because negotiation of meaning may occur during tutorials and tutors can elicit from the students what they exactly mean. This can be particularly feasible in writing classes where the number of students is low.

Dictionaries of connectives can be created. In these dictionaries, different meanings of connectives used in English can be stated and examples from different corpus can be chosen and placed under the relevant meaning as an example. The unmarked meaning of the connective can be offered as a first entry, and the marked meanings can be stated later. Frequency of connectives in the corpus (e.g., in the BNC), and whether it is more frequent in written texts or oral language can also be stated.

5.2.2. Implications for future research

As for future research, the following can be done:

1. Seeing ICLE, it can be concluded that EFL learners of different L1s including Turkish EFL learners do not use connectives indicating particular relations. Future research should investigate how both Turkish learners of EFL and learners of EFL with other first languages use connectives in the essays they write in their first languages, and the results can be compared. How subjects having the same L1s use connectives in their own language and in the target language can be compared. For instance, the essays written in Turkish by Turkish EFL learners and essays written in English by Turkish EFL learners can be compared in terms of connective use.

2. How students having different L1s use connectives in their first language and in English can be compared in order to discover whether students transfer the use of connectives from their first language to English. How learners from different

L1s use connectives in any target language can also be compared. The essay types written in the L1 and target language should be the same in order to prevent the text type effect.

3. How connectives are used in different L1s can be compared. For instance, Turkish corpus and English corpus can be compared to see in what ways the most frequently used connectives and the relations they signal are similar or different. For example, are dismissal, respective and additive negative category connectives less frequent than other connectives in the Turkish, French, Korean, etc. corpora? If results show that the frequency of those connectives is low in most languages, then can we say that those relations are cognitively complex? Or, does it mean that there is not enough real context that requires the frequent use of those relations and the connectives that indicate them?

Future research should investigate how appropriately different cohesive ties are used by Turkish EFL learners. The results can be compared to see which one of these cohesive ties are used the most appropriately and incorrectly. In future research investigating the use of connectives, think- aloud protocols can be used to understand why the students have chosen particular connective to make the relation explicit. This can be particularly done when the relation is not understood by the reader-researcher i.e., when the students cannot produce comprehensible output. Finally, future research should include subjects from the ELT departments of different universities in Turkey and even from the ELT departments of universities in different countries, and the results can be compared.

The results of the current study may also shed light on researchers working in a large variety of fields, such as second language acquisition, discourse, text linguistics, cognitive linguistics, comparative linguistics, comparative interlanguage studies, and computational linguistics.

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APPENDICES

APPENDIX A

THE ESSAY QUESTION

Name:

Surname:

Student Number:

Course:

Section:

Read the ideas below prepared to guide you. Then write a well developed essay (<u>at least 3 paragraphs</u>) stating your own opinion regarding the necessity of going to university. In other words, in your opinion, 'Should everybody go to university?"

- University education is costly.

- University degree is not a guarantee of well training.

- People need higher education to get a good job and earn more money, and have better social status.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

APPENDIX B

THE CONSENT FORM

Değerli Öğrencimiz,

INÖ 132 dersinde yazmış olduğunuz 'Should everybody go to university?' konulu kompozisyon ELT alanında yapılan bir doktora tez çalışmasında kullanılmak istenmektedir. Onaylıyorsanız ad, soyad, imza şeklinde belirtilen boşlukları doldurunuz. Yapılan çalışmada ad ve soyadınız belirtilmeyecek, yazdığınız kompozisyon akademik çalışma dışında başka hiçbir amaç için kullanılmayacaktır.

Teşekkürler.

Araştırmacı:

Öğr. Gör. Dilek ALTUNAY

AD:

SOYAD:

İMZA:

APPENDIX C

THE SYLLABUS

INTRODUCTORY INFORMATION
Name of the Course   : Written Communication
Code of the Course   : İNÖ131   Language: English   ECTS Credit:4
Department/Program   : Faculty of Education Department of Foreign Language Education
Program in English Language Teaching
Instructor   : Gonca Subaşı, Ela Akgün Özbek, Ahsen Hande Kür

OFFICE HOURS
Between 17:00-18:00, on every Monday

COURSE DESCRIPTION
This course introduces students various rhetorical modes through an approach that affirms the interconnectedness of writing, reading, and grammar. Genre approach to writing is also implemented in order to make students become skilled writers.

COURSE AIM
In this process implemented course, the aims are: developing positive attitudes towards writing, fostering awareness of their own skills as writers, teaching strategies to cope with the difficulties of writing process, making students understand essay writing in English using different stages: prewriting, revising, editing, training for giving effective peer feedback and introducing text types in English.

TEACHING METHOD
Mixed: A combination of two or more techniques
In addition, brainstorming, reflection (reflection on experiences), workshops, observation, field work, case studies can be used.

COURSE OUTLINE
Week 1: Introduction to the course
Week 2: What is a paragraph? Topic sentence, support, conclusion; unity and coherence
Week 3: Paragraph types: The Narrative Paragraph (past, present), the Descriptive Paragraph (people, place), the Expository Paragraph (examples, details and illustrations, anecdotes)
Week 4: Examples of paragraphs: The Narrative Paragraph (past, present), the Descriptive Paragraph (people, place), the Expository Paragraph (examples, details and illustrations, anecdotes)
Week 5: Introduction to the essay (thesis statement, introduction paragraph)
Week 6: First midterm
Week 7: Introduction to the essay (developmental paragraphs, conclusion paragraph)
Week 8: Analyzing sample essays and studying essays outline
Week 9: Example Essay
Week 10: Process Analysis Essay
Week 11: Comparison and Contrast Essay
Week 12: Second midterm
Week 13: Classification Essay
Week 14: Cause and Effect Analysis Essay

COURSEBOOKS
Course Pack

APPENDIX D

STATISTICS FOR INTER-RATER RELIABILITY

For all questions:

Correlations

			KisiA	KisiB
Spearman's rho	KisiA	Correlation Coefficient	1,000	,986(**)
		Sig. (2-tailed)	.	,000
		N	202	202
	KisiB	Correlation Coefficient	,986(**)	1,000
		Sig. (2-tailed)	,000	.
		N	202	202

** Correlation is significant at the 0.01 level (2-tailed).

For the relations shown by the connectives used:

Correlations

			KisiA	KisiB
Spearman's rho	KisiA	Correlation Coefficient	1,000	,991(**)
		Sig. (2-tailed)	.	,000
		N	202	202
	KisiB	Correlation Coefficient	,991(**)	1,000
		Sig. (2-tailed)	,000	.
		N	202	202

** Correlation is significant at the 0.01 level (2-tailed).

For appropriatness:

			KisiA	KisiB
Spearman's rho	KisiA	Correlation Coefficient	1,000	,995(**)
		Sig. (2-tailed)	.	,000
		N	202	202
	KisiB	Correlation Coefficient	,995(**)	1,000
		Sig. (2-tailed)	,000	.
		N	202	202

** Correlation is significant at the 0.01 level (2-tailed).

For structural correctness:

			KisiA	KisiB
Spearman's rho	KisiA	Correlation Coefficient	1,000	,998(**)
		Sig. (2-tailed)	.	,000
		N	202	202
	KisiB	Correlation Coefficient	,998(**)	1,000
		Sig. (2-tailed)	,000	.
		N	202	202

** Correlation is significant at the 0.01 level (2-tailed).

APPENDIX E

INFORMATION ON GOLDVARB X STATISTICS PROGRAM

Goldvarb X is an application created to carry out variable rule analysis. It is based on programs previously circulated by David Sankoff, Pascale Rousseau, Don Hindle and Susan Pintzuk. It has been reprogrammed in PASCAL by David Rand. Researchers in the linguistics departments of the University of Pennsylvania and the University of Ottawa and in the Département d'anthropologie of the Université de Montréal tested its successive versions. Goldvarb X does not require any another software other than the operating system.

See the following link for detailed information about the Goldvarb X statistics program: http://individual.utoronto.ca/tagliamonte/Goldvarb/GV_index.htm

APPENDIX F

SAMPLE STATISTICS

AND:

```
Group         a      m      x      g      ı      4   Total    %
-----------------------------------------------------------------
1 (2)         a      m      x      g      ı      4
   1  N     186     12      0      2      3      0    203   90.2
      %    91.6    5.9    0.0    1.0    1.5    0.0

   5  N       0      0      5      0      0      0      5    2.2
      %     0.0    0.0  100.0    0.0    0.0    0.0

   3  N       3      0      0      0      0      0      3    1.3
      %   100.0    0.0    0.0    0.0    0.0    0.0

   2  N       2      0      0      0      0      0      2    0.9
      %   100.0    0.0    0.0    0.0    0.0    0.0

   4  N       0      0      0      0      0     12     12    5.3
      %     0.0    0.0    0.0    0.0    0.0  100.0

Total N     191     12      5      2      3     12    225
      %    84.9    5.3    2.2    0.9    1.3    5.3
-----------------------------------------------------------------
2 (3)         a      m      x      g      ı      4
   7  N     186     12      5      2      3      0    208   92.4
      %    89.4    5.8    2.4    1.0    1.4    0.0

   9  N       3      0      0      0      0      0      3    1.3
      %   100.0    0.0    0.0    0.0    0.0    0.0

   8  N       2      0      0      0      0      0      2    0.9
      %   100.0    0.0    0.0    0.0    0.0    0.0

   4  N       0      0      0      0      0     12     12    5.3
      %     0.0    0.0    0.0    0.0    0.0  100.0

Total N     191     12      5      2      3     12    225
      %    84.9    5.3    2.2    0.9    1.3    5.3
-----------------------------------------------------------------
TOTAL N     191     12      5      2      3     12    225
      %    84.9    5.3    2.2    0.9    1.3    5.3
```

```
Name of token file: Untitled.tkn
Name of condition file: Untitled.cnd
(
(1 (a (COL 1 a))
   (x (COL 1 m))
   (x (COL 1 x))
   (x (COL 1 g))
   (x (COL 1 Ä±))
   (x (COL 1 4)))
(2 (1 (COL 2 1))
   (5 (COL 2 5))
   (5 (COL 2 3))
   (5 (COL 2 2))
   (5 (COL 2 4)))


        Number of cells:  2
```

```
   Application value(s):  ax
   Total no. of factors:  2

 Group          a       x    Total     %
---------------------------------------
 1 (2)          a       x
   1   N       185      17     202   90.2
       %      91.6     8.4

   5   N         5      17      22    9.8
       %      22.7    77.3

 Total N       190      34     224
       %      84.8    15.2
---------------------------------------
 TOTAL N       190      34     224
       %      84.8    15.2
```

```
BINOMIAL VARBRUL
Name of cell file: .cel

Averaging by weighting factors.
Threshold, step-up/down: 0.050001

Stepping up...

---------- Level # 0 ----------

Run # 1, 1 cells:
Convergence at Iteration 2
Input 0.848
Log likelihood = -95.378



---------- Level # 1 ----------

Run # 2, 2 cells:
Convergence at Iteration 5
Input 0.884
Group # 1 -- 1: 0.588, 5: 0.037
Log likelihood = -70.131  Significance = 0.000

Add Group # 1 with factors 15

Best stepping up run:  #2
----------------------------------------------

Stepping down...

---------- Level # 1 ----------

Run # 3, 2 cells:
Convergence at Iteration 5
Input 0.884
Group # 1 -- 1: 0.588, 5: 0.037
Log likelihood = -70.131
```

```
---------- Level # 0 ----------

Run # 4, 1 cells:
Convergence at Iteration 2
Input 0.848
Log likelihood = -95.378  Significance = 0.000

All remaining groups significant

Groups eliminated while stepping down: None
Best stepping  up  run: #2
Best stepping down run: #3
```

HOWEVER:

```
 Number of cells:  4
  Application value(s):  Ä±gx
  Total no. of factors:  5

 Group          ı        g        x   Total     %
-------------------------------------------------
 1 (2)          ı        g        x
   1   N        4       15        0      19  86.4
       %     21.1     78.9      0.0

   2   N        0        2        0       2   9.1
       %      0.0    100.0      0.0

   5   N        0        0        1       1   4.5
       %      0.0      0.0    100.0
 Total N        4       17        1      22
       %     18.2     77.3      4.5
-------------------------------------------------
 2 (3)          ı        g        x
   7   N        2       12        1      15  68.2
       %     13.3     80.0      6.7

   9   N        2        5        0       7  31.8
       %     28.6     71.4      0.0

 Total N        4       17        1      22
       %     18.2     77.3      4.5
-------------------------------------------------
 TOTAL N        4       17        1      22
       %     18.2     77.3      4.5
```

BECAUSE:

```
 Number of cells:  13
 Application value(s):  ml4
 Total no. of factors:  10
```

Group		m	l	4	Total	%
1 (2)		m	l	4		
1	N	0	74	0	74	84.1
	%	0.0	100.0	0.0		
5	N	0	6	0	6	6.8
	%	0.0	100.0	0.0		
3	N	1	3	0	4	4.5
	%	25.0	75.0	0.0		
2	N	0	1	0	1	1.1
	%	0.0	100.0	0.0		
4	N	0	0	3	3	3.4
	%	0.0	0.0	100.0		
Total	N	1	84	3	88	
	%	1.1	95.5	3.4		
2 (3)		m	l	4		
0	N	0	25	0	25	28.4
	%	0.0	100.0	0.0		
7	N	0	15	0	15	17.0
	%	0.0	100.0	0.0		
8	N	0	40	0	40	45.5
	%	0.0	100.0	0.0		
9	N	1	4	0	5	5.7
	%	20.0	80.0	0.0		
4	N	0	0	3	3	3.4
	%	0.0	0.0	100.0		
Total	N	1	84	3	88	
	%	1.1	95.5	3.4		
TOTAL	N	1	84	3	88	
	%	1.1	95.5	3.4		

BUT
```
Number of cells:  8
  Application value(s):  agÄ±x4
  Total no. of factors:  9
```

Group		a	g	ı	x	4	Total	%
1 (2)		a	g	ı	x	4		
1	N	0	115	25	0	0	140	92.1
	%	0.0	82.1	17.9	0.0	0.0		
5	N	0	0	0	6	0	6	3.9
	%	0.0	0.0	0.0	100.0	0.0		
3	N	0	3	0	0	0	3	2.0
	%	0.0	100.0	0.0	0.0	0.0		
2	N	1	1	0	0	0	2	1.3
	%	50.0	50.0	0.0	0.0	0.0		
4	N	0	0	0	0	1	1	0.7
	%	0.0	0.0	0.0	0.0	100.0		
Total	N	1	119	25	6	1	152	
	%	0.7	78.3	16.4	3.9	0.7		
2 (3)		a	g	ı	x	4		
7	N	1	101	21	3	0	126	82.9
	%	0.8	80.2	16.7	2.4	0.0		
9	N	0	15	4	3	0	22	14.5
	%	0.0	68.2	18.2	13.6	0.0		
8	N	0	3	0	0	0	3	2.0
	%	0.0	100.0	0.0	0.0	0.0		
4	N	0	0	0	0	1	1	0.7
	%	0.0	0.0	0.0	0.0	100.0		
Total	N	1	119	25	6	1	152	
	%	0.7	78.3	16.4	3.9	0.7		
TOTAL	N	1	119	25	6	1	152	
	%	0.7	78.3	16.4	3.9	0.7		

APPENDIX G

SAMPLE ESSAYS

B17

Being Graduated from University

Nowadays university education is a must for almost everybody. Because in many types of jobs, it is required to be graduated from a university.

Although, graduation from a high school was enough to find a job in the past, now it seems impossible. Even if you are talented and good at that sector, you have a little chance of finding a job, if you aren't graduated from a university. But does university make us fully-informed on a department?

No, it doesn't. Because the best way to be a professional is training but graduation document doesn't show that we are good at the subject, and this means having a low status.

Consequently, a person should have a university education to find a good job and to have a higher status in public.

C5

BEING A UNIVERSITY STUDENT

In Turkey, a lot of people think that being a student may be unnecessary if you have a rich father or then intellegence of trade. These people say that after the school your job isn't guaranteed so you don' t have to go. In my opinion, these are wrong because they think schools or universities are only for jobs. With the advantage of having a good job, universities have a lot of advantages so everybody should go to university.

Firstly, in the university you meet a lot of people who has a different culture, different ideas or different hobbies. In every new meeting, your life becomes to change. Everyone has own ideas of course but with talking, listening and discussing you can see your own wrong or right ideas. So you can change the wrong ones or evaluate right ones.

Another advantage of being a university student is using the university sources. Libraries, clubs, sport centers etc. help you to improve yourself. You are supposed to do some works in university which also help you. With courses, you improve your entellectuality.

Universities have advantages like friends, sources or the chance of getting a good jobs. They may not guarantee a good job but becoming a well- developed person, you should go university.

D16

Education is one of the most important factors for developing countries, like ours, to reach the level of developed ones, as all we know. Especially university education is really essential for these countries and their people for these four reasons: to get a job that is compatible with the person's abilities and interests, earn money, have better social status and broaden the person's horizon and experiencing the joyful university life.

First of all, the people are attending the university according to their abilities and interest, so when they graduate from the university, they'll probably get a job that they are educated for. Getting the job that they like will be satisfactory and enable them to derive pleasure from the work and the life.

Secondly, people graduating from the university have higher chance of getting a job and earning money to meet their needs, compared with the ones that are not graduated from university, so they will be more calm when seeking for a job than their peers, not having attended university.

Thirdly, people will have better social status and broaden their horizons thanks to university education. Because attending university means being able to achieve one's goals and being equipped with lots of information for people.

Finally, enjoying the university life is unique and, I think, everybody must have this experience. Because people learn much more than technical information at university as to life…

University life brings people a good job with money, social status and unique experiences and everybody must have these wonderful things at least one time in their life.

APPENDIX H

DEMOGRAPHIC QUESTIONNAIRE

Name (Ad):

Section (Bölüm):

Please read the questions below and write your answers in the blanks.

(Lütfen aşağıdaki soruları okuyunuz ve cevaplarınızı boşluklara yazınız.)

1. Are you an Erasmus student? If so, what is your native language? (Erasmus öğrencisi misiniz? Öyle ise, ana diliniz nadir?)

   ....

2. What is your major field? (English/French/German Language Teaching) (Bölümüz nedir? İngilizce/Fransızca/Almanca öğretmenliği)

   ....

3. Are you taking this course for the first time, or second time because you failed last year? (Bu dersi ilk defa mı yoksa geçtiğimiz yıl başarılı olamadığınız için ikinci defa mı alıyorsunuz?)

   ....

4. Have you ever been in a country where English is used as the first language? If yes, how long?(İngilizce'nin birinci dil olarak kullanıldığı bir ülkede bulunuz mu? Bulunduysanız ne kadar süre kaldınız?)

   ....

5. How long have you been learning English?(Ne kadar zamandır İngilizce öğreniyorsunuz?)

   ....

6. What type of high school did you graduate from? (public, anatolian school, private, etc.) (Ne tür bir liseden mezunsunuz? - düz lise,anadolu lisesi, özel lise vs.)

   ....

7. Have you attended the English Language Preparatory School at Anadolu University? (Anadolu Üniversitesi İngilizce hazırlık okulunda okudunuz mu?)

   ....

8. Have you received instruction on how to use connectives last term in grammar or writing courses? (Geçtiğimiz dönem bağlaçların nasıl kullanılacağı dilbilgisi ya da yazma derslerinde işlendi mi?)

....

9. Have you ever received instruction on how to use punctuation marks in your grammar and writing courses last term?(Geçtiğimiz dönem dilbilgisi ya da yazma derslerinde noktalama işaretlerinin kullanımı işlendi mi?)

....

10 . Have you ever taught how to write an argumentative essay last term? (Geçtiğimiz dönem tartışmacı kompozisyon yazmaya ilişkin ders gördünüz mü?)

....

APPENDIX I

APPROPRIATE & CORRECT USE OF THE CONNECTIVES

Connective	Approp. Uses	Misuse	Overuse	Underuse	Relation not understood	Correct Uses	Incorrect Use	Grammatical Error	Punctuation Error	Both Gram. & Punctu.Error
And	203 (90%)	2(1%)	3(1%)	12(5%)	5(2%)	208(98%)	5(2%)	2(1%)	3(1%)	-
But	140 (92%)	2(1%)	3(2%)	1(1%)	6(4%)	126(83%)	25(17%)	3(2%)	22(15%)	-
If	89 (98%)	-	-	-	2(2%)	74(81%)	17(18%)	4(4%)	13(14%)	-
So	75(87%)	5(6%)	4(5%)	-	2(2%)	56(65%)	30(35%)	4(5%)	26(30%)	-
Because	74(84%)	1(1%)	4(5%)	3(3%)	6(7%)	15(18%)	70(82%)	40(47%)	5(6%)	25(29%)
When	73(100%)	-	-	-	-	70(96%)	3(4%)	1(1%)	2(3%)	-
In conclusion	23(92%)	1(4%)	-	-	1(4%)	21(84%)	4 (16%)	-	4(16%)	-
First of all	13(57%)	9(39%)	-	-	1(4%)	21(91%)	2(9%)	-	2(9%)	-
However	19(86%)	2(9%)	-	-	1(5%)	15(68%)	7(32%)	-	7(32%)	-
Firstly	15(71%)	6(29%)	-	-	-	20(95%)	1(5%)	-	1(5%)	-
For example	13(65%)	2(10%)	2(10%)	-	3(15%)	10(50%)	10(50%)	-	10(50%)	-
Although	14(78%)	-	1(6%)	-	3(17%)	14(78%)	4 (23%)	1(6%)	3(17%)	-
Or	17(100%)	-	-	-	-	14(82%)	3(18%)	-	3(18%)	-
Therefore	13(87%)	-	1(7%)	-	1(7%)	10(67%)	5(33%)	-	5(33%)	-
While	15(100%)	-	-	-	-	13(87%)	2(13%)	-	2(13%)	-
Moreover	5(36%)	8(57%)	1(7%)	-	-	11(79%)	3(21%)	-	3(21%)	-
Also	-	13(100%)	-	-	-	-	13(100%)	13(100%)	-	-
To sum up	13 (100%)	-	-	-	-	13(100%)	-	-	-	-
Finally	13(100%)	-	-	-	-	12(92%)	1(8%)	-	1(8%)	-
Secondly	2(100%)	-	-	-	-	2(100%)	-	-	-	-
In order to	12(100%)	-	-	-	-	11(92%)	1(8%)	-	1(8%)	-
Not only but also	11(100%)	-	-	-	-	11(100%)	-	-	-	-
On the other hand	8(73%)	2(18%)	1(9%)	-	-	8(73%)	3(27%)	-	3(27%)	-
After	8(100%)	-	-	-	-	8(100%)	-	-	-	-
Even if	8(100%)	-	-	-	-	7(88%)	1(13%)	1(13%)	-	-
As a result	2(29%)	5(71%)	-	-	-	6(86%)	1(14%)	-	1(14%)	-
Then	1(14%)	5(71%)	1(14%)	-	-	3(43%)	4(57%)	-	4(57%)	-
Consequently	-	6(100%)	-	-	-	5(83%)	1(17%)	-	1(17%)	-
And also	5(83%)	-	1(17%)	-	-	3(50%)	3(50%)	-	3(50%)	-
In addition	6(100%)	-	-	-	-	6(100%)	-	-	-	-
Because of this	5(100%)	-	-	-	-	3(60%)	2(40%)	-	2(40%)	-
All in all	5(100%)	-	-	-	-	5(100%)	-	-	-	-
At least	4(80%)	-	-	-	1(20%)	5(100%)	-	-	-	-
In fact	4(80%)	1(20%)	-	-	-	2(40%)	3(60%)	-	3(60%)	-
Nevertheless	3(75%)	-	-	1(25%)	-	3(100%)	-	-	-	-

Connective	Approp. Uses	Misuse	Overuse	Underuse	Relation was not understood	Correct Uses	Incorrect Use	Grammatical Error	Punctuation Error	Both Gram. & Punctu.Error
After that	3(75%)	-	-	-	1(25%)	3(75%)	1(25%)	-	1(25%)	-
As	3(75%)	-	-	-	1(25%)	2(50%)	2 (50%)	1(25%)	1(25%)	-
Since	4(100%)	-	-	-	-	1(25%)	3(75%)	1(25%)	1(25%)	1(25%)
In addition this	2(67%)	-	1(33%)	-	-	3(100%)	-	-	-	-
As a conclusion	-	4(100%)	-	-	-	4(100%)	-	-	-	-
Briefly	2 (67%)	-	-	1(33%)	-	1(50%)	1(50%)	-	1(50%)	-
In short	3(100%)	-	-	-	-	3(100%)	-	-	-	-
Actually	3(100%)	-	-	-	-	-	3(100%)	-	3(100%)	-
On the contrary	2(67%)	1(33%)	-	-	-	-	3(100%)	-	3(100%)	-
I mean	3(100%)	-	-	-	-	1(33%)	2(67%)	-	2(67%)	-
Besides	1(33%)	2(67%)	-	-	-	3(100%)	-	-	-	-
For instance	3(100%)	-	-	-	-	2(67%)	1(33%)	-	1(33%)	-
Furthermore	1(33%)	2(67%)	-	-	-	3(100%)	-	-	-	-
In brief	1(50%)	-	-	-	1(50%)	1(50%)	1(50%)	-	1(50%)	-
In other words	2 (100%)	-	-	-	-	1(50%)	1(50%)	-	1(50%)	-
That's to say	2(100%)	-	-	-	-	2(100%)	-	-	-	-
Thus	-	1(50%)	-	-	1(50%)	1(50%)	1(50%)	-	1(50%)	-
What is more	-	1(50%)	-	-	1(50%)	1(50%)	1(50%)	-	1(50%)	-
First	2(100%)	-	-	-	-	2(100%)	-	-	-	-
Next	1(50%)	1(50%)	-	-	-	2(100%)	-	-	-	-
So as to	2(100%)	-	-	-	-	1(50%)	1 (50%)	-	-	1(50%)
In this case	2(100%)	-	-	-	-	2(100%)	-	-	-	-
Yet	1(100%)	-	-	-	-	-	1(100%)	-	-	1(100)
Instead of this	1(100%)	-	-	-	-	-	1(100%)	-	1(100%)	-
By the way	-	1(100%)	-	-	-	-	1(100%)	-	1(100%)	-
Namely	1(100%)	-	-	-	-	1(100%)	-	-	-	-
That is	-	-	-	-	1(100%)	-	1(100%)	-	1(100%)	-
And finally	1(100%)	-	-	-	-	1(100%)	-	-	-	-
And then	1(100%)	-	-	-	-	-	1(100%)	-	1(100%)	-
At the same time	1(100%)	-	-	-	-	-	1(100%)	1(100%)	-	-
At this point	-	1(100%)	-	-	-	1(100%)	-	-	-	-

Connective	Approp. Uses	Misuse	Overuse	Underuse	Relation was not understood	Correct Uses	Incorrect Use	Grammatical Error	Punctuation Error	Both Gram. & Punctu.Error
Meanwhile	1(100%)	-	-	-	-	-	1(100%)	-	1(100%)	-
For	1(100%)	-	-	-	-	-	1(100%)	1(100%)	-	-
Before	1(100%)	-	-	-	-	1(100%)	-	-	-	-
Whereas	1(100%)	-	-	-	-	-	1(100%)	1(100%)	-	-
Even though	1(100%)	-	-	-	-	1(100%)	-	-	-	-
But on the other hand	2(100%)	-	-	-	-	-	2(100%)	1(50%)	1(50%)	-
TOTAL	966(86%)	84(7%)	23(2%)	18(2%)	38(3%)	855 (77%)	256(23%)	75 (7%)	153 (14%)	28 (2%)