

## DEVELOPMENT OF CONJUNCTIVE ADVERBS IN THE WRITING OF ENGLISH FOR UNDERGRADUATE STUDENTS

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### *Abstract*

*Students struggle to improve their flair for writing through different activities and instructors sacrifice quite a lot of their time to compile effective tasks to help students in their struggle. However, it would not be much wise to consider writing as a holistic structure, but a structure composed of different components, and each component is to be improved distinctively. One of these components is conjunctive adverbs (CAs), under the title of conjunctions. It seems that true and properly placed CAs may increase writing fluency while any misuse of them might disrupt the reading flow. Therefore, the role of CAs in a text should not be downgraded; accordingly, this study aims to build awareness of instructors and students regarding positive correlation between CAs and writing quality, to develop undergraduate students' writing skills through enhancing their knowledge of CAs, make some suggestions regarding the erroneous use of them, and finally to prepare a list of CAs for undergraduate students. In line with that, thirty students studying at the department of translation were delivered some tasks before and after explicit teaching of CAs. Two important conclusions were reached: students have difficulties in using punctuation with CAs and undergraduate students' lexical reservoir of CAs in English is not many. Accordingly, this study insistently advises instructors at university levels not to exclude punctuation marks on the course of teaching CAs, for which punctuation is particularly important and they should allocate a spot in their curriculum for the explicit teaching of CAs.*

**Keywords:** *Conjunctive Adverbs, Writing, Students, English, Conjunctions*

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## **Lisans Öğrencilerinin İngiliz Dili Yazımında Birleşik Zarf Kullanımlarının Geliştirilmesi**

### **Öz**

Öğrenciler, farklı etkinliklerle yazma becerilerini geliştirme gayreti içerisinde ve öğretmenler de öğrencilerinin bu gayretlerini gerçekleştirmelerinde yardımcı olmak için oldukça fazla vakit ayırmaktalar. Oysaki yazma becerisi bir bütün olarak geliştirilebilir bir beceri olmaktan çok kısım kısım geliştirilmelidir. Geliştirilmesi gereken bu kısımlarda bir tanesi İngilizce yazımda birleşik zarflardır. Bu zarfların doğru bir şekilde kullanılması yazı akıcılığını arttırırken herhangi bir yanlış kullanım okuma akıcılığına zarar verecektir. Bundan dolayı, birleşik zarfların bir metin içerisindeki görevi hafife alınmamalıdır. Bu doğrultuda, mevcut çalışmanın amacı öğrenci ve öğretmenlerin birleşik zarf ve yazım kalitesi arasındaki farkındalığını oluşturmak, öğrencilerin İngilizcede birleşik zarf kullanımlarını geliştirmelerini sağlamak, bu zarfların hatalı kullanımları üzerine bazı açıklamalarda bulunmak ve son olarak öğrencilerin kullanabilecekleri bir birleşik zarf listesi oluşturmak olarak sıralanabilir. Çalışmanın verisini bir Tercümanlık bölümünde okuyan 30 öğrenciden toplanan çeşitli etkinlikler oluşturmaktadır. Bu çalışma iki sonuca ulaşmıştır. Bunlardan ilki, öğrencilerin birleşik zarfları kullanırken noktalama işaretlerini doğru kullanamadıkları, ikincisi ise öğrencilerin İngilizce birleşik zarflarını tam olarak bilmedikleridir. Bu çalışma öğretmenlerin eğitim müfredatlarında birleşik zarflar için ayrı bir yer ayırmanın faydalı olacağı sonucuna ulaşmıştır.

**Anahtar Kelimeler:** Birleşik Zarf, Yazma, Öğrenci, İngilizce, Bağlaçlar.

### **Introduction**

Development of writing, different from other skills, is a unitary process and this “complex integrated activity” (Leggette, Rutherford, & Dunsford, 2015, p. 250) serves as a basic skill particularly for undergraduate students who study in English-medium departments. Therefore, students search for ways to have effective writing skills and to be competent in writing. Some scholars (e.g. Liaw, 2007) argue that content is to be developed for proficient writing while some others argue that writing is about grammar (e.g. Andrews, et al., 2006; Elola, 2010) and mechanics (e.g. Crossley, Kyle, Varner, & McNamara, 2014); however, today we know that writing cannot be pushed into confined zones because its scope of learning overspreads a larger area than it used to be considered. In brief, writing is about knowledge of content, grammar, mechanics, and even extra-linguistics factors such as cognitive and visual-perceptual skills (Vinter & Chartrel, 2010).

Out of many factors affecting writing quality, grammar and mechanics need particular attention because they are the starting point for a writer to lay the foundation, and without them it would not be much possible to set the bar of writing quality high. Correspondingly, conjunctions are a feature of linguistics that requires grammatical and mechanical

knowledge of that language; writers need to have grammatical knowledge of conjunctions to be able to place conjunctions between sentences accurately, and mechanical knowledge of conjunctions to insert punctuation marks properly.

Conjunctions -through connecting sentences- help readers make sense of the text (Martinez, 2016). There are different conjunctions in English grammar, and conjunctive adverbs (CAs) distinguish themselves from other conjunctions types such as coordination, correlative and subordinating in that they can be placed at the beginning, middle and end of the second clause, and depending on the position in a text there are certain rules to follow concerning punctuation marks. Non-native writers of English have more erroneous conjunctions in their writing when compared to native ones; therefore, this study that investigates non-native students of English -namely Turkish students- may help them to enhance their writing quality, to have more cohesive texts, and hence to produce more legible writing.

### **Novice Writers and Conjunctive Adverbs**

Writing instruction is a significant component of higher education (Leggette, Rutherford, & Dunsford, 2015). Students struggle to improve their flair for writing through courses because it necessitates linguistic, cognitive (Mohamed & Nyinondi, 2017), and content competence. In addition to all these difficulties, students are required to write in academic discourse, which is probably the most complicated one of all genres because it poses the use of strict rules and defies any arbitrariness. That academic writing is difficult led researchers to investigate the issue, and find ways of teaching.

Out of many important linguistic aspects, conjunctions seem particularly important due to their in-sentence or between-sentences contribution to legible writing. CAs will help the students be able to connect the sentences and paragraphs in a coherent way, but that necessitates both content and grammar knowledge. This study deals with the issue from the aspect of grammar because lack of English grammatical knowledge may lead to inaccurate or inefficient use of CAs (Yoon & Yoo, 2011). One of the reasons causing errors in students' writing is inaccurate to use of conjunctions; therefore, taking results of error analyses of English CAs into account (c.f. Phuket & Othman, 2015), it becomes apparent that novice academic writers like undergraduate students need to be addressed so that they could facilitate their own learning process of writing, and enhance writing quality.

### **Conjunctive Adverbs and Text Cohesion**

CAs are important for the cohesion which can be considered as a crucial marking criterion to judge the quality of L2 writing (Chiang, 2003) and a positive correlation exists between the frequency of conjunctions and the composition quality (Martinez, 2016). However, this does not denote that the more writers use conjunctive adverbs, the more qualified texts they will have. Striking a balance is undoubtedly crucial for text cohesion

because the use of certain conjunctions unevenly may disrupt reading flow (Oshima & Houge, 1991).

It is easy to comprehend low-cohesion texts for skilled readers but not for less-skilled readers (Ogiso, 2018), therefore, a text should be legible for readers at all levels of English proficiency. Accordingly, CAs -an issue under the category of conjunctions- provide cohesive ties across sentence boundaries, hence a close link between cohesion, coherence and writing quality (Stephen & Lester, 1981). In other words, writers who employ cohesive devices such as CAs would have more cohesive texts, which is regarded as a sign of quality by writing experts (Chanyoo, 2018). Nativeness matters for English as an academic writing (Römer & Arbor, 2009) and accurate use of CAs may help a student to sound more native in their writing.

### **Effectiveness of Explicit Teaching of Conjunctive Adverbs**

Teaching procedure in countries where English is not the native language includes two instructional models: implicit and explicit. While students are expected to learn the target issues on their own without awareness of what has been learnt in an incidental manner (Seger, 1994) in implicit learning, they are completely aware of the instruction process, purposes, and expectations concerning the teaching process in explicit learning. The effectiveness of explicit teaching is a controversial issue because the effect of it changes depending on the issue that is taught. We do not know for sure if explicit learning is effective in all language areas while it seems that it is effective in language learning issues such as comprehension strategies, vocabulary, phonetics, and texts structure (NICHD, 2000). In other words, despite the suspicions regarding the effectiveness of explicit teaching, it should be tested in different fields of language learning so that the effectiveness of it can be judged.

Although explicit teaching has a limited role in learning a new genre (Freedman, 1993; Purcell-Gates, Duke, & Martineau, 2007) a salutary effect can be observed on students' writing performance through explicit teaching of more specific points rather than a whole genre (La Paz & Graham, 2002). Explicit instruction is superior to implicit learning in that it catches students' awareness onto the issues that are aimed to be taught; "the value of consciousness for understanding the nature of second language" (Ellis, 2009, p. 5) should not be underestimated.

### **Research Aim and Questions**

This study aims to build awareness of instructors and students regarding the positive correlation between CAs and writing quality, to develop undergraduate students' writing skills through enhancing their knowledge of CAs, make some suggestions regarding the erroneous use of CAs, and to prepare a list of CAs adverbs for undergraduate students. Specifically, this study aims to answer the following questions.

1. Which conjunctive adverb is the most prevalent in students' writing?
2. What is the frequency of conjunctive adverbs in students' writing?
3. What are the common punctuation errors of students in employing conjunctive adverbs? Is explicit teaching of punctuation regarding accurate use of them with CAs statistically significant?
4. Is explicit teaching statistically effective for conjunctive adverbs?

## **Methodology**

### **Context, Research Sites, and Participants**

This study, carried out in 2018- 2019 academic years, was performed at the department of translation studies of the University of Siirt, (Turkey). Thirty undergraduate students were chosen as participants of this study. They were not selected based on grade levels, but on the criteria of willingness, score and nationality i.e., although this department has students around a hundred and fifty, only those who are willing for the study were kindly invited. The other elimination was the score that they had in the University Entrance Exam, which is an exam that students graduated from high school have to take in order to enrol at a university in Turkey, because the department of translation accepted students from a range of scores between 254 and 414. Given that students with too high or low scores may prompt reliability concerns, students who have a score between 330 and 360 were invited to take part. In other words, those with very high or low scores were excluded because students need to have similar background knowledge so that the progress with them could be followed readily. Because of the possible effects of interlanguage transfers (L1 transfer), only students whose native language is Turkish were included. Finally, none of the students in the study had any instruction on conjunctive adverbs before.

### **Data**

The tasks delivered to students constituted the data for this study. Students were required to complete different tasks to make error analyses i.e., how they use CAs and where is the most problematic issue regarding use of CAs. The participants completed three tasks, the first of which was the translation of a text from Turkish to English. This task would allow the researcher to detect whether students were able to translate conjunctive adverbs in Turkish to English successfully because the source text included some CAs in Turkish. The second task required students to write a free passage on one of the writing prompts of environment, future, or social life. This task would provide a general view regarding how students freely use CAs in their writing. The final task asked students to complete a fill-the-blanks exercise. The students were warned about the importance of punctuation because a writer needs to use different punctuation mark depending on the position of conjunctive adverbs inside a sentence or paragraph. The data collected through the three tasks were for the pre-test. After a period of three weeks' education, the same tasks were

repeated for the post-test (the content of the tasks was changed). In brief, each student completed each task twice. The data were analysed through Paired sample t-test.

### Identification of Error

Error correction practically involves a threefold process of identification, evaluation and correction, and the majority of studies have focused on the latter two areas (Hyland & Anan, 2006) while this study focused on all processes in terms of two categories: Erroneous punctuation and erroneous use of conjunctive adverbs.

1) Erroneous punctuation: As indicated, the position of a conjunctive adverb affects the punctuation mark that the writer will use. A conjunctive adverb can be used between the sentences (a), before the sentence (b), inside the sentence (c), or after the sentence (d). An example was provided below.

a. CAs must be preceded by a semicolon if the clause is linked to the previous clause.

*I wanted to go; however, it was too late.*

b. CAs at the beginning of a clause must be followed by a comma and started with uppercase.

*I wanted to go. However, it was too late*

c. CAs between the subject and the verb must be both preceded and followed by a comma. On the other hand, it is not obligatory to use commas for weak interruption; therefore, this study made a distinction between weak and strong interruption.

*I wanted to go. It, however, was too late.*

d. CAs at the end of a clause must be preceded by a comma and followed by a period. Similarly, a writer does not have to separate the conjunctive adverb from the main sentence through a comma if it is weak interruption; accordingly, weak interruptions were excluded from the data.

*I wanted to go. It was too late, however.*

2) Diversity of CAs: This study placed conjunctive adverbs into five categories: illustrative (specifically, for example etc.), additive (furthermore, moreover etc.), cause-effect (consequently, therefore etc.), adversative (however, unfortunately etc.), and temporal (first, finally etc.). Under this category, the researcher picked up CAs in data, and categorized them; hence, the number and diversity of CAs in students' writing were detected.

### Analyses and Procedure

One of the purposes of this study was to investigate the statistical differences between pre-test and post- test. The tasks in the table 1 were delivered to students in the first

week (for pre-test) and in the fifth week (for post-test). In other words, in this 5 weeks' long study, the first week was spent on data collection. The tasks on the table 1 were implemented in the first and fifth weeks. Each task was delivered on a separate day so that students would not be overloaded.

**Table 1.** Schedule of Week 1

Task	For pre-test	For post-test	Duration
Translation from Turkish to English	1 <sup>st</sup> week, Day 1	5 <sup>th</sup> week, Day 1	60 Minutes
Free writing	1 <sup>st</sup> week, Day 2	5 <sup>th</sup> week, Day 2	60 Minutes
Activity of fill-in-blanks	1 <sup>st</sup> week, Day 3	5 <sup>th</sup> week, Day 3	20 Minutes

In order to identify the errors, the data were analysed and categorized. In the wake of analyses, the researcher designed an instruction programme for the students. The programme focussed on two categories as seen in the table 2: erroneous punctuation concerning the use of CAs and Diversity of CAs. The knowledge of how to use period, comma, and semi-colon is important; therefore, the second week was dedicated to the issue of punctuation for CAs. The third and fourth weeks were devoted to explicit teaching of CAs.

**Table 2.** Instruction Programme

Error type	Issue	Day& Week	Duration
Punctuation of conjunctive adverbs	The use of comma	2 <sup>nd</sup> week, Day 1	40 minutes
	The use of semi-colon	2 <sup>nd</sup> week, Day 2	40 minutes
	The use of period	2 <sup>nd</sup> week, Day 3	40 minutes
Use of conjunctive adverb	Illustrative conjunctive adverbs	3 <sup>rd</sup> week, Day 1	40 minutes
	Additive conjunctive adverbs	3 <sup>rd</sup> week, Day 2	40 minutes
	Cause-effect conjunctive adverbs	3 <sup>rd</sup> week, Day 3	40 minutes
	Adversative conjunctive adverbs	4 <sup>th</sup> week, Day 1	40 minutes
	Temporal conjunctive adverbs	4 <sup>th</sup> week, Day 2	40 minutes

In the last week of the study (5<sup>th</sup> week), the same tasks in the first week were delivered to the students in order to calculate post-test results. Then, the collected data were analysed and categorized. In other words, the data of the first and the last week were analysed through *paired sample t-test* to see whether there was a statistically significant difference between pre- and post-tests.

## Results

### Statistical Findings concerning Punctuation

All the tasks filled by the participants were analysed and the results were provided in the table 3. The table includes the erroneous punctuation number concerning the use of CAs. It also contains pre-test and post-test results.

**Table 3.** Pre- and Post-test Results concerning Inaccurate Punctuation Use of Conjunctive Adverbs.

Student	Comma		Semi-colon		Period		Total	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
1	3	0	7	1	0	0	10	1
2	3	0	5	0	0	0	8	0
3	2	0	2	1	1	0	5	1
4	5	0	9	2	0	0	14	4
5	3	0	5	0	1	1	9	1
6	6	0	2	0	0	0	8	0
7	3	1	2	0	1	0	6	1
8	1	1	5	1	1	0	7	2
9	4	0	6	1	0	0	10	3
10	2	0	6	0	0	0	8	0
11	0	0	4	0	0	0	4	0
12	2	1	7	1	2	0	11	2
13	3	0	4	1	1	0	8	1
14	5	1	8	0	0	1	13	2
15	4	0	4	0	2	0	10	0
16	3	1	6	1	0	0	9	2
17	6	1	6	0	0	0	12	1
18	2	0	3	0	2	0	7	0
19	3	0	6	1	2	0	11	1
20	5	0	5	0	1	0	11	1
21	6	1	8	1	1	1	15	4
22	4	0	5	2	1	0	10	2
23	2	0	4	0	0	0	6	0
24	1	0	7	0	0	1	8	1
25	1	1	7	0	0	0	8	1
26	2	0	6	1	1	0	9	1
27	3	0	6	0	1	0	10	0
28	2	1	5	0	2	0	9	1
29	3	1	7	0	0	0	10	1
30	5	0	8	0	1	0	14	2
<b>Total</b>	<b>94</b>	<b>10</b>	<b>165</b>	<b>14</b>	<b>21</b>	<b>4</b>	<b>280</b>	<b>36</b>

The table shows that semi-colon is the punctuation mark that student had the most errors while comma and period follows it respectively. Students either mispunctuated or used redundant punctuation, or merely missed the punctuation. The table also shows that there is a dramatic decrease in the number of punctuations errors in the wake of the explicit teaching of CAs. The number for colon fell from 94 to10; for semi-colon from 165 to14; and for the period from 21 to 4. Paired sample t-test calculated whether there was a statistically significant difference between pre-test and post-test after the explicit teaching of CAs. The results were provided in table 4.

**Table 4.** Paired Sample t-test Results of Erroneous Use of Punctuation

	Mean	SD	t	df	p
Comma	2,8	1,648	9,304	29	,000
Semi-colon	5,033	1,79	15,398	29	,000
Period	0,567	,157	3,616	29	,001

The findings indicated that there is a statistically significant difference between pre-test ( $M=3.13$ ,  $SD=1.16$ ) and post-test ( $M=0.33$ ,  $SD=0.479$ ) concerning erroneous use of comma after explicit teaching of CAs ( $t(29)= 9.304$ ,  $p< .001$ ). Similarly, the scores were significantly lower for the post-test ( $M=0.47$ ,  $SD=0.629$ ) than the pre-test ( $M=5.50$ ,  $SD=1.834$ ) in terms of semi-colon ( $t(29)= 15.398$ ,  $p< .001$ ). Finally, a statistically significant difference was yielded between pre-test ( $M=0.7$ ,  $SD=0.750$ ) and post-test ( $M=0.13$ ,  $SD=0.346$ ) as to erroneous use of period ( $t(29)=3.616$ ,  $p= .001$ ).

### **Erroneous Punctuation Examples in Students' Writing**

Students had numerous punctuation errors while using CAs. Two types of erroneous punctuation examples were found: inaccurate punctuation use (to use a comma while they should have used a semi-colon) and punctuation missing (to miss a punctuation mark while they should have used one).

### **Inaccurate Punctuation Mark**

As stated earlier, depending on the position of the CAs, the writer needs to capitalize the letter or change the punctuation mark. It was found that capitalization is a problem for students. Some students capitalized conjunctive adverbs after semi-colon as if it was a period (1 and 2). The other problematic issue was that students used comma but not semi-colon when the CAs were used as a conjunction between two sentences (3,4, and 5). Finally, some students did not use period while they should have (6). False sentences were marked with a star while the revised ones were provided in brackets as follows.

(1) *I always like to travel; **However**, I hadn't found any chances.\**

*[I always like to travel; **however**, I hadn't found any chances.]*

(2) *My friends are enthusiastic; **Therefore**, I like to be with them.\**

*[My friends are enthusiastic; **therefore**, I like to be with them.]*

(3) *I try to save water, **thus**, the world will be saved.\**

*[I try to save water; **thus**, the world will be saved.]*

(4) *Everything needed to be tidy, **on the contrary**, everything was in a mess.\**

*[Everything needed to be tidy; **on the contrary**, everything was in a mess.]*

(5) *Watching a movie is funny, **similarly**, visiting a theatre play is funny as well.\**

*[Watching a movie is funny; **similarly**, visiting a theatre play is funny as well.]*

(6) *The relationship between nature and humans should be close, **Unfortunately**, we are not.\**

*[The relationship between nature and humans should be close. **Unfortunately**, we are not]*

### **Punctuation Missing**

CAs can be used only between two commas if it is to be placed inside a sentence, but some students missed to use commas (1 and 2). Similarly, a semi-colon should be used if the conjunctive adverb functions as a conjunction between two sentences (3 and 4). Although it is few, some students missed period (5). Last, writers need to separate the conjunctive adverb with a comma from the sentence if it is used at the end (6).

(1) *I like visiting abroad. I **however** do not find any chances.\**

*[I like visiting abroad. I, **however**, do not find any chances.]*

(2) *Internet gave us everything. It **also** gave freedom.\**

*[Internet gave us everything. It, **also**, gave freedom.]*

(3) *2050 will be very different from now **for example**, the cars would fly.\**

*[2050 will be very different from now; **for example**, the cars would fly.]*

(4) *I called my friends **meanwhile** I tidied the mess with home.\**

*[I called my friends; **meanwhile**, I tidied the mess with home.]*

(5) *They called the police **Subsequently**, the thief run away the scene.\**

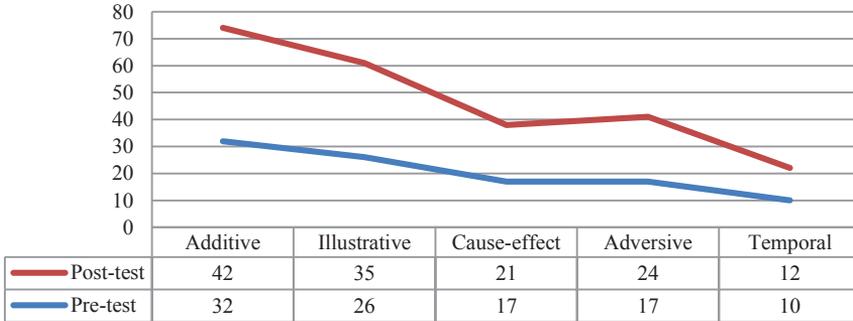
*[They called the police. **Subsequently**, the thief runs away the scene.]*

(6) *It is not my fault. I know it was my fault **however**.\**

*[It is not my fault. I know it was my fault, **however**.]*

**Findings regarding Categories of Conjunctive Adverbs**

Different from the tasks of translation and fill-in-blanks, free writing allowed us to learn how and to what extent students include conjunctive adverbs in their writing. The figure 1 shows the number of CAs in students’ writing.



**Figure 1.** The number of conjunctive adverbs in students’ writing.

Out of five conjunctive adverbs categories, additive conjunctives category is the most used one, and then the category of illustrative conjunctive adverbs follows. While the categories of cause-effect and adversative have the same number in pre-test, the category of adversative conjunctive adverbs outnumbers the category of cause-effect. The least used category in both pre-test and post-test results is the category of temporal conjunctive adverbs.

**Pre-test Results**

Pre-test results were summarized in the table 5. The table includes the number of use of CAs in each category, the most used conjunctive adverb in each category, and all the CAs used in each category.

**Table 5.** The Conjunctive Adverbs and Their Number in Pre-test.

Additive	No	Illustrative	No	Cause-effect	No	Adversative	No	Temporal	No
In addition	10	For example	12	Therefore	8	However	9	First	3
Also	6	In other words	7	Thus	6	On the other hand	4	Second	3
Besides	5	For instance	3	As a result	2	In contrast	1	Then	2
Again	4	Similarly	3	Hence	1	Unfortunately	1	Finally	1
Furthermore	4	That is	1			Instead	1	Next	1
Perhaps	2					Otherwise	1		
Additionally	1								
<b>Total</b>	<b>32</b>		<b>26</b>		<b>17</b>		<b>17</b>		<b>10</b>

Students used additive CAs 32 times in pre-tests, which are *in addition*, *furthermore*, *also*, *besides*, *perhaps*, *additionally* and *again*. The analyses showed that the most used additive conjunctive adverb is *in addition*. In total, seven different CAs were used, which is the most versatile category. Then, the category of illustrative CAs follows with a frequency of 26. The most used conjunctive adverb is *for example* which was used 12 times; then, *in other words*, *for instance*, *similarly*, and *that is* follow. When compared to additive CAs, the versatility of illustrative CAs is lower; 5. The category of cause-effect conjunctive adverb has the least versatility with four different CAs. The most used one is *therefore*, and then *thus*, *as a result*, and *hence* follow. Students employed these CAs 17 times in their writing. Similar to the category of cause-effect, adversative CAs were used 17 times, but it is more versatile because students used 6 different CAs which are *however*, *on the other hand*, *in contrast*, *unfortunately*, *instead*, and *otherwise*. In spite of adverb diversity, *however* made up of more than half of the total frequency, 9, which is to say that students are prone to using this adverb more than others. At last, the category of temporal CAs is last in the row concerning the frequency; that is, students used them 10 times. Five different temporal CAs were picked up which are *first*, *second*, *then*, *finally*, and *next*. The CAs with the highest frequency are *first* and *second*, 3 times each. To sum up, students used 27 different CAs 102 times in pre-test free writing.

### Post-test Results

Similar to table 5, table 6 provides the number of CAs in each category, the most used conjunctive adverb in each category, and all the CAs used in each category.

**Table 6.** The Conjunctive Adverbs and Their Number in Post-test.

Additive	No	Illustrative	No	Adversative	No	Cause-effect	No	Temporal	No
In addition	8	For example	10	However	7	Therefore	8	First	3
Also	6	In other words	6	On the other hand	4	Thus	4	Second	2
Besides	5	For instance	6	In contrast	4	Henceforth	3	Then	2
Again	4	likewise	3	Nevertheless	3	As a result	2	Finally	2
Furthermore	4	Namely	4	Unfortunately	2	Hence	2	Next	1
In fact	4	Similarly	3	Instead	2	In conclusion	1	Afterward	1
Further	4	That is	3	Otherwise	1	Eventually	1	Later	1
Perhaps	3			In comparison	1				
Moreover	2								
Additionally	2								
<b>Total</b>	<b>42</b>		<b>35</b>		<b>24</b>		<b>21</b>		<b>12</b>

In the wake of pre-test, an explicit teaching programme was performed. The results showed an increase both in the frequency and variety of CAs. Alike pre-test results, post-test analyses showed that the most used one is the category of additive CAs while the least used category is the temporal CAs. However, while the categories of adversative and cause-effect had the same frequency in pre-test, post-test result yielded a higher score for adversative CAs than cause-effect CAs, 24-21 respectively. The most used conjunctive adverb in all categories did not change. It is *in addition* for the category of additive; *for example* for the category of illustrative; *however* for the category of adversative; *therefore* for the category of cause-effect; and *first* for the category of temporal. On the other hand, all categories showed an increase in the variety; that is, students expanded their reservoir of CAs in their writing. The category of additive has the most variety with 10 different CAs, and then it is followed by adversative CAs, 8. All other categories have the same number, seven different CAs in each category. Compared to pre-test, the post-test results had higher number of CAs in total; students used CAs 134 times in their writing. In brief, following the instruction programme and having received explicit teaching, students expanded their use of CAs in all categories both in terms of frequency and lexical variety.

**Statistical Findings regarding Effectiveness of Explicit Teaching**

The CAs in each category in the pre-test and post-test were analysed in order to see the effectiveness of explicit teaching on the number of CAs, which allowed us to conclude whether there was a statistically significant difference between pre-test and post-test in terms of conjunctive adverb number. The results were summarized in the table 7.

**Table 7.** Statistical results as to each CA category.

Category	Mean	SD	t	df	p
Additive	-.333	.547	-3.340	29	.002*
Illustrative	-.300	.915	-1.795	29	.083
Cause-effect	-.133	.346	-2.112	29	.043*
Adversative	-.200	.407	-2.693	29	.012*
Temporal	-.067	.254	-1.439	29	.161

\* p value is significant

The results showed that there is a statistically significant difference between pre-test ( $M=1.07, SD=.254$ ) and post-test ( $M=1.40, SD=.563$ ) concerning the category of additive after explicit teaching ( $t(29)=-3.340, p < .05$ ). On the contrary, the scores did not show a significantly significant result for the pre-test ( $M=.87, SD=.346$ ) and for the post-

test ( $M=1.17$ ,  $SD= .648$ ) in terms of the category of illustrative CAs ( $t(29)= -1.795$ ,  $p < .05$ ). Regarding the category of cause-effect, statistically significant results were yielded between pre-test ( $M= .57$ ,  $SD= .504$ ) and post-test ( $M= .70$ ,  $SD= .466$ ) ( $t(29)= -2.112$ ,  $p < .05$ ). Similarly, the findings showed a significant result for the category of adversative ( $t(29)= -2.693$ ,  $p < .05$ ) between pre-test ( $M= .57$ ,  $SD= .504$ ) and post-test ( $M= .77$ ,  $SD= .430$ ). Finally, the findings of the category of temporal did not show a statistically significant different between pre-test ( $M= .33$ ,  $SD= .479$ ) and post-test ( $M= .40$ ,  $SD= .498$ ) ( $t(29)= -1.439$ ,  $p = .161$ ).

### Discussions

The students tend to use additive and illustrative CAs more than other categories of cause-effect, adversative, and temporal. Furthermore, the category of temporal includes least used CAs by students. The most used five CAs by students are *for example, in addition, however, also, and in other words*. To state specifically, the most used three CAs in each category are *in addition, also* and *besides* for the category of additive; *for example, in other words, and for instance* for the category of illustrative; *however, on the other hand, and in contrast* for the category of adversative, *therefore, thus and henceforth* for the category of cause-effect, and lastly *first, second and then* for the category of temporal.

The results as to frequencies of CAs used in each category and in total were provided in the tables 5 and 6. To state concisely, students used CAs in their writing 102 times in pre-test while the number was 134 for post-tests. To provide the frequencies separately, in pre-test free writing students used additive CAs 32 times; illustrative CAs 26 times; cause-effect CAs 17 times; adversative CAs 17 times, and temporal CAs 10 times. The numbers were higher for post-test because student used additive CAs 42 times; illustrative CAs 35 times; adversative CAs 24 times; cause-effect CAs 21 times, and temporal CAs 12 times.

Conjunctive adverbs require students to use three punctuations marks -namely colon, semi-colon, and period- adeptly and this study found that students need to be taught regarding the use of punctuation with CAs. The students in pre-tests used punctuations marks erroneously. The most problematic punctuation mark seems to be semi-colon, which was either used erroneously or missed 165 times by students in the tasks. It was followed by comma; 94 times, and subsequently period came; 21 times. In total student inaccurately performed punctuation marks 280times. Having been taught through the instruction programme, students lowered their errors significantly to 36 in total from 280, which provided a statistically significant result. To speak in detail, in post-test tasks students had 14 errors with semi-colon; 10 with colon, and 4 with period; accordingly, the results yielded a statistically significant difference as to using of colon, semi-colon and period (table 4).

The result showed statistically significant differences in 3 out of 5 categories which are additive, cause-effect, and adversative. For the categories of illustrative and temporal,

a significant result was not yielded; however this does not reduce the effectiveness of the explicit teaching on CAs because the number of CAs the student used in the tasks in the wake of explicit teaching increased (see the tables 5 and 6).

The result showed that the explicit teaching of CAs helped students to decrease erroneous use as Altner (2017) found a similar result. In line with this study, Wei (2016) concluded that instruction might be efficient for Chinese students to improve their use of conjunctive conjunctions; therefore an explicit teaching is needed in order to raise students' awareness in functions of adverbs in L2 writing (Yılmaz & Dikilitaş, 2017)

### **Conclusion**

In brief, this study investigated conjunctive adverbs (CAs) that students used in their writing, and aimed to increase their reservoir of conjunctive adverbs and to detect punctuation errors that student made because depending on the position of CAs, the writer need to change the punctuation, which is why punctuation and correct use of CAs has a close relation. Given the results, two important conclusions were reached: students have difficulties in using punctuation with CAs and undergraduate students' lexical reservoir of CAs in English is not many. Accordingly, this study insistently advises instructors at university levels not to exclude punctuation marks on the course of teaching CAs, for which punctuation is particularly important. Instructors may pick up some instruction postings to use in their classrooms in the present study.

The relationship between lexicon (the number of vocabularies that a speaker knows) and frequency is apparent (Laufer & Nation, 1995) and the depth of vocabulary knowledge may have a positive effect on students' academic success of strategy use (Nassaji, 2006), academic reading performances (Qian, 2002), and undoubtedly writing quality (Olinghouse & Wilson, 2013); therefore, this study suggests that instructors of academic writing should provide explicit teaching of CAs so that they can increase students' awareness towards CAs, hence their use.

The accurate use of CAs needs time, and instructors should support their students through myriad tasks and ready-made lists of CAs throughout the course of teaching. This study prepared a small list of CAs from which students get a benefit (appendix 1). Instructors detected the erroneous use of CAs in students' writing are to allocate time in their yearly curriculum. As final remarks, writing is not a skill to develop with ease; therefore, students should be given time and opportunities to increase their skill of writing.

### **Further Research**

This study collected the data from the three different tasks stated in the methodology. The further studies can expand their data collection method by allocating more time for the student to complete the tasks. Furthermore, the number of participants was limited

because of the number of limited students in the research site; therefore, an increase in the number of participant may provide more reliable results regarding the use of CAs.

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**Appendix 1.** *A list of conjunctive adverbs*

<b>Illustrative Conjunctive Adverbs</b>	<i>for example, incidentally, in other words, specifically, namely, similarly, likewise, for instance, in short, that is</i>
<b>Additive Conjunctive Adverbs</b>	<i>in addition, furthermore, moreover, again, also, besides, further, indeed, in fact, equally, additionally, undoubtedly, perhaps, certainly, elsewhere, in any case</i>
<b>Cause-effect Conjunctive Adverbs</b>	<i>because of this, accordingly, correspondingly, consequently, therefore, hence, henceforth, thus, subsequently, eventually, in conclusion, as a result</i>
<b>Adversative Conjunctive Adverbs</b>	<i>however, instead, nevertheless, rather, unfortunately, fortunately, anyway, nevertheless, otherwise, contrarily, conversely, nonetheless, still, on the other hand, in comparison, in contrast, anyhow, in spite of</i>
<b>Temporal Conjunctive Adverbs</b>	<i>first, second, third etc, at that time, finally, next, meanwhile, then, thereafter, now, afterward, in the meantime, later, lately, at last</i>