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ENHANCING THE USE OF DISCOURSE MARKERS IN ACADEMIC WRITING: THE COMBINATION OF INCIDENTAL ACQUISITION AND EXPLICIT INSTRUCTION[1]

AKADEMİK YAZIDA SÖYLEM BELİRTEÇLERİ KULLANIMININ GELİŞTİRİLMESİ: DOĞRUDAN ÖĞRETİM VE DOLAYLI EDİNİM

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Abstract

Cohesion has always been a major component of academic writing. One problem with non-native student writers' academic writing is the lack of cohesion due to the inadequate and inappropriate use of discourse markers (DMs), which are essential cohesion elements. Studies (e.g. Li & Schmitt, 2009) have shown that since non-native student writers lack a deep and wide knowledge of DMs, they overuse a limited set of DMs which they know well. This, in turn, causes their writing to feel non-native. Whether explicit instruction (EI) or incidental acquisition (IA) is more effective in DM acquisition has not been totally researched yet. This small scale experimental and exploratory study sets out to find out whether a combination of the two results in effective acquisition and retention of DMs in six freshman English majors. Results indicate that a combination of EI and IA lead to significant DM acquisition and enhancement in the quantity and variety of DM use but not in accuracy.

Key Words: **D**iscourse markers, academic writing, cohesion, explicit instruction, incidental acquisition, concordances

Öz

Akademik yazı alanında dilbilgisel doğruluk kadar akıcılık ve tutarlılık da her zaman önemli bir bileşen olagelmiştir. Ana dili İngilizce olmayan öğrencilerin yaşadıkları önemli bir problem, akıcılığın ve tutarlılığın önemli temellerinden var sayılan "söylem belirteçlerinin" (SB) yetersiz ve yanlış kullanımına bağlı olarak yazılarında akıcılık ve bütünlük eksikleri görülmesidir. Çalışmalar ana dili İngilizce olmayan öğrencilerin detaylı ve kapsamlı bir SB bilgisine sahip olmadıklarını ve dolayısıyla özellikle iyi bildikleri sınırlı sayıdaki SB'leri yazılarında aşırı sıklıkla kullandıklarını göstermiştir. Bu da sonuç olarak yazılarının doğallığını engellemektedir. SB öğreniminde "doğrudan öğretim"in mi yoksa "dolaylı edinim"in mi daha etkili olduğu henüz tam olarak araştırılmamıştır. Bu küçük ölçekli deneysel ve betimleyici çalışma, altı İngilizce bölümü öğrencisine uygulanan bir karma "doğrudan öğretim" ve "dolaylı edinim" metodunun etkili bir SB edinimine yol açıp açmadığını araştırmaktadır. Sonuçlar, bu metodun SB ediniminde etkili olduğunu ve SB kullanım sayısını ve çeşitliliğini istatistiksel olarak anlamlı bir şekilde artırırken doğru kullanımda anlamlı bir farka yol açmadığını göstermektedir.

Anahtar Kelimeler: söylem belirteçleri, akademik yazı, akıcılık, doğrudan öğretim, dolaylı edinim

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1. INTRODUCTION

Just as knowing an essential amount of vocabulary is important in reading comprehension and certain limits of vocabulary coverage are proposed in the literature (e.g. 95% by Laufer, 1989; 98% by Hu & Nation, 2000), it is also vital to have acquired a certain amount of vocabulary to be effective writers in academic writing. A great deal of recent research (e.g. Biber et al. 1999; Nattinger & DeCarrico, 1992; Wray, 2002) has shown that a considerable amount of our language use is mostly made up of pre-fabricated expressions of which DMs make up one important part. Therefore, just like the words listed in the Academic Word List (Coxhead, 2000) should be acquired for effective writing in academic register, a certain number of DMs should also be learned by second language (L2) writers who strive to acquire fluent and coherent academic writing in English. Defined as "words and phrases that speakers use to sequence and structure ideas and information in paragraph-length discourse" (Hernández, 2008: 666), DMs have the function to "signal relationships between prior and coming discourse" (Biber & Barbieri, 2007:265). Mostly drawn from the syntactic classes of conjunctions, adverbs, and prepositional phrases and idioms, DMs control the interpretation of the message conveyed by one discourse segment in relation to the interpretation of another by forcing a relationship between them (Fraser, 1998, 1999; cited in Wei, 2011: 676).That is to say, in order to have a written text that "flows" for its readers, DMs are essential building blocks to be acquired adequately and used effectively. Most of the existing research on DMs (both in speaking and writing) has emphasized the essential role of DMs in building discourse coherence (e.g. Dülger, 2007; Hernández, 2008, Lenk, 1998; Redeker, 1990; Schiffrin, 2001), which is a must particularly for academic writing and successful written works.

A DM "… (i) has a core meaning which can be enriched by the context; and (ii) signals the relationship that the speaker intends between the utterance the DM introduces and the foregoing utterance" (Fraser, 1999: 936). In this respect, DMs have a vital function in academic writing which is to link the pieces of discourse to form a unified and coherent whole while "bringin g to the listener's [reader's] attention a particular kind of linkage of the upcoming utterance with the immediate discourse context" (Redeker, 1991: 1168). Some examples of English DMs are "likewise, by the same token, with reference to, with regard to, first of all, nonetheless, therefore" and a lot more can be cited as examples. Any writer who wants to have an advanced competency in academic writing should use these and other DMs adequately, appropriately and effectively. As Coxhead and Byrd (2007: 135-136) state, since DMs are frequently used and are fixed expressions, they "become defining markers of fluent writing and are important for the development of writing that fits the expectations of readers in academia". The effective use of DMs have been seen as a central component in academic writing (Coxhead & Byrd, 2007; Hyland, 2008; Li & Schmitt, 2009) and lack of it has been regarded as a sign for novice and apprentice L2 writers (Haswell, 1991; Hyland, 2008; Li & Schmitt, 2009). Considering

all said above, it can be concluded that writing effectively and fluently in a coherent way necessitates the acquisition of DMs and their optimal and appropriate use.

The problem with DMs for L2 writers particularly occurs in two ways: a) they overuse a limited number of well-known phrases, b) they do not possess the existing wide repertoire to use DMs in a native-like manner (Li & Schmitt, 2009: 85). A number of studies (Granger, 1998; Howarth, 1998) have shown that compared to native speakers, non-native speakers of English have a much more limited repertoire of lexical phrases and DMs and this leads them to overuse the DMs that they already know. This, in turn, makes their writing seem non-native and stilted. An example can be given for this overuse from two studies. According to Crowhurst's (1987) findings, developing writers use *because* less frequently as their writing gets better and as they acquire the conventions of academic written English. Likewise, Schleppegrell (1996: 273) found that undergraduate non-native writers use twice the number of *because* clauses as native writers while doing the same writing task.

Some other studies (Flowerdew 1998; Hyland & Milton 1997; Milton 1999) have also noted that there were discrepancies between non-native writers' and native writers' use of certain DMs and lexical phrases. Though, to the author's knowledge, there are no studies for Turkish students' use of DMs in this sense (there is a study on DMs by Dülger (2007), but it is neither on DM acquisition nor appropriate DM use), it is common sense that they are no different. The presence and effective use of DMs mark the writer's familiarity with the register of a certain academic community and it is also true for just the opposite situation. Therefore, one further reason why student writers should learn DMs is their prospective success in their field of study.

In focusing particularly on Turkish students, one of the factors that leads them to overuse a limited number of DMs is (just like students in Hong Kong (Milton, 1998), and presumably other L2 students in similar settings) that they memorize a list of DMs which come up most in the foreign language test of the University Entrance Exam (called LYS-5) and try to use them extensively, as if these DMs are the only ones existing in English. Though anecdotal, this was widely observed by the first author during his 4-year teaching of Academic Writing to Turkish freshman students of English majors. Due to the lack of contextualization in rote learning of DMs, Turkish students use DMs in a very simplistic and largely inappropriate way in their written works.

Regarding all these problems with respect to the use of DMs, few studies have been conducted on the acquisition of DMs, especially in input-scarce settings where English is taught and learned as a foreign language. One important thing at this point is, just like the participants of this study, many EFL (English as a foreign language) learners strive to pursue their academic careers in either English-speaking countries or English-medium universities where effective academic writing in English is vital and a prerequisite for professional advancement. Teaching and learning appropriate and effective use

of DMs should, therefore, be an essential component in especially academic writing courses offered by departments of English.

Whether EI is effective in language acquisition is an ongoing debate among second language acquisition theoreticians and applied linguists. On the one hand, Krashen (1985, 1994) believes that EI does not contribute to L2 acquisition because conscious knowledge of language rules does not become unconscious, acquired knowledge. Rather, he suggests that L2 learners should be exposed to ample comprehensible input for language acquisition. On the other hand, a group of other researchers (Alanen 1995; DeKeyser, 1998; Ellis, 1993; Schmidt 1993, 1995, 2001) argues that in order to promote the conscious process of language acquisition, learners need to "notice" the L2 forms and that EI, before learners are exposed to language input, facilitates language acquisition significantly.

With regard to DM acquisition, studies investigating whether EI or IA is more effective have produced mixed results so far. Whereas Hernández (2008) found out that the experimental group which was offered EI combined with input flood (IF) outperformed the IF-only group in the acquisition of DMs in narrating a past event, in his more recent study (2011), the EI plus IF group was not superior to the IF-only group. de la Fuente (2009), in her study with 24 undergraduates in fifth-semester Spanish found that the explicit focus on the treatment of forms (called Conscious Raising in her study) was more effective in the acquisition of DMs than the input enrichment (IE) group. de la Fuente came to the conclusion in her study that EI and meta-linguistic awareness might be required for even advanced L2 learners to acquire DMs (cited in Hernández, 2011: 163).

Drawing on recent studies which favor a combination of EI and IF (Hernández, 2008, de la Fuente, 2009), this study examines the effects of both EI and IA on the acquisition of DMs by six freshman students throughout an academic term and investigates which one is more influential. The main aim of the study is to increase the quantity, variety and correct use of DMs L2 student writers use in their essays. The following research questions have been addressed by the study:

1. Does the participating students' knowledge of DMs improve over the academic term?
2. Does the participating students' use of DMs increase in number over the academic term?
3. Does the participating students' use of DMs improve with regard to variety?
4. Does the participating students' use of DMs improve with regard to accuracy?
5. Is EI or IA or a combination of both more effective in the acquisition of DMs?

2. METHOD

This small scale experimental and exploratory study is based on both students' reports concerning their improvements in DM acquisition and experimental evaluation of their use of DMs with regard to quantity, variety and accuracy through a pre-, post- and delayed post-test design.

Participants and Setting

This study was carried out in the spring term of 2009-10, during an Advanced Writing course with students who were English majors at a private university in Istanbul. It was designed as a small-scale experimental and exploratory study and six freshman students (selected randomly from 11 scholarship students in a class of 19) participated in the study. Their oral consent was obtained after a brief introduction to the study. These six upper-intermediate students had a similar proficiency level (the main researcher had taught them for one term and was well aware of their proficiency, the selected students were all scholarship students with similar GPAs – all above 3.60, and their foreign language test scores in the University Entrance Exam were also very close to each other, except for the Azerbaijani student who did not take this test). Five of the participating students were Turkish whereas one of them was from Azerbaijan. Their ages ranged from 18 to 29 (M= 20). This was the first time that they had gotten any formal training in academic writing and all of them were non-native writers and speakers of English. They received 3 hours a week of study in academic writing within the normal class (a first-year Advanced Writing II course), as well as an extra two hours as the study group with the main researcher having a specific focus on DMs. The first author of this study taught the three-hour regular composition classes and conducted the two-hour study group sessions.

Procedure

In the first week of the study, after students were given a brief introduction to argumentative composition, they were asked to write an argumentative essay with a minimum word-count of 700 words. This essay was the pre-test of the study. The number, type and inaccurate use of DMs used by the students were counted by the three researchers. The researchers first had a meeting to compromise on what to count as a DM and on their inaccurate use. All essays were first evaluated separately by each researcher and then the different ratings were discussed as a group. The inter-rater reliability was calculated over 90%. This procedure was repeated for post and delayed post-tests as well. As a second step, the students were given a list containing 122 DMs and asked to mark them according to the following criteria (adapted from Paribakht & Wesche (1996)):

1- I know and I use it confidently.

2- I know and I use it but I am not sure.

3- I know but I don't use it.

4- I don't know it.

The aim of this student self-report was initially to determine the baseline level of the students with respect to their knowledge of DMs. The instructional treatments followed during the study are summarized in Table 1.

During the treatment phase of the study, students were assigned extensive reading and were offered class sessions in which target DMs were taught explicitly. These two aspects of the study are explained below.

Table 1. Instructional treatments

Time	Treatment
Week 1	pre-test
Week 2-3	essay 1 (cause and effect essay)
Week 4-5	essay 2 (comparison essay)
Week 6-7	essay 3 (classification)
Week 8	on-the-spot writing (narrative)
Week 8-10	essay 4 (argumentative essay 1)
Week 11-13	essay 5 (argumentative essay 2)
Week 14	post-test
3 months after the post-test	delayed post-test

Explicit Instruction

Students were assigned five essays (cause and effect, comparison-contrast, classification and two argumentative essays), each which were to be completed in two to three weeks. A process approach was followed, that is, for each essay students first went through pre-writing and idea gathering sessions and then wrote two drafts and one final draft. Each of these two drafts and the final draft was closely examined by the main researcher. The students revised each draft after receiving feedback from the researcher, including specific and intensive feedback on DMs. With the six participating students, the researcher conducted teacher-student conferences either in his office hours or in the weekly extra two-hour study sessions. During these one-on-one studies, the researcher highlighted DMs, corrected wrong or inappropriate use of them, gave cursory explanations about certain DMs, and encouraged students to use a variety of DMs as opposed to depending on a limited number of well-known DMs. Group discussions in the two-hour studies and mini-class instruction sessions together with the whole class in the regular class hours followed all this. With all the feedback students received, they wrote their final drafts for the essays, which were later graded by the researcher. The students were given further recommendations on the correct use of DMs. Apart from these five essays (with two drafts and one final draft), the students were also asked to write another narrative essay, this time with no draft and no preliminary preparation or research. This was again reviewed by the researcher with a specific focus on DMs. The reason why such an on-the-spot task was carried out was to observe and show the students their progress in DM use in the middle of the study and discuss the weaknesses or apparent problems. For ethical reasons, during all student-teacher conferences and review sessions, the students were given feedback not only on DMs but also on organization, accuracy, content and when necessary, the mechanics of academic writing.

Extensive Reading (Incidental Acquisition)

The students were assigned systematic extensive reading involving mainly academic texts. This was done in two ways: texts selected by the researcher were assigned and students were asked to choose their own reading. In both options, they were asked to read a minimum number of pages a week and to keep a reading list where they recorded what they read. While reading all these texts, students were asked to pay special attention to the DMs they had learned or reviewed both during their in-class essay writing studies and the two-hour extra explicit DM instruction sessions. The number of pages they read during the whole study ranged from 1042 to 1949 with a mean of 11.73 pages a day. Needless to say, this is just descriptive information, since the length of pages from various sources, some of which are selected by students themselves, cannot be totally standardized, so no statistical inferences have been made out of this. The reading material from which they chose their preferred sources were of a wide variety: newspapers, magazines, scientific journals, scholarly websites, literary works, as well as passages from their textbooks.

Concordance Studies

One aspect of self-study within this research, which can be categorized within both EI and IA, is concordance studies. On the one hand, students explicitly studied target DMs from concordance lines and tried to see how they were used in different contexts (as part of EI). On the other hand, they studied the 'expanded context' of each DM (as explained below) and were exposed to reading materials where DMs were used (as part of IA).

In week 2, in the very first study group meeting, the terms *corpus linguistics*, *corpora studies*, *concordances* and *collocations* were explained briefly. As a next step, they were introduced to the web-site of Corpus of Contemporary American English (http://corpus.byu.edu). Then, they were taught how to use the website to look up words and for the specific purpose of this study, the target DMs. One main aim of using concordances in this study is to raise students' awareness of the use of DMs in academic register by enabling them to see a considerable number of examples within expanded contexts. To this end, students were shown how to look up a DM by using the KWIC (key word in context) tool and selecting academic register. Through using this website, students could examine general frequency of DMs as well as their frequency in five main genres (spoken, fiction, magazines, newspapers, academic), with a facility to compare them. They could also see the collocates and at least 100 concordance lines which provided them insight into patterns in which the DMs occur. An example of the interface of the website and a sample list of concordances for "with regard to" are given in the appendix.

For each week, students were required to make a concordance of 10 DMs, study them in 'expanded context' (by clicking on the left heading of each concordance line, an expanded context from the original source pops out) and see their use together with their most common collocations. In

this way, they studied all the target DMs (n=122) from this website. This raised their awareness of DMs (as revealed in the student interviews) and was one way of a combination of both EI and IA in the study. From time to time, some example concordances of certain DMs were studied as a group in the two-hour study sessions together with the researcher.

Student Lists

Students were given an excel file where they kept the record of the following:

a) Evaluation of DMs on a four-point scale (mentioned above) and improvement in the use of these DMs on a 6-point scale (explained below)
b) Reading list (whatever they read, they kept their record with the following titles: name of the material, author, genre, number of pages, date finished)
c) List of the DMs of which they studied the concordances (date studied and the list of three most common collocations)

Every three weeks, students were asked to review the DM list and mark any improvements this time on a 6-point scale as shown below:

1- I know and I use it confidently.
2- I know and I use it but I am not sure.
3- I know but I don't use it.
4- I don't know it.
5- I have learned a new meaning of it.
6- I thought I was using it correctly but I have learned that I was using it incorrectly.

One reason for this periodical review was the researcher's intention to lead students to review DMs on a regular basis as well as to raise their awareness of DMs, which will be useful in their further extensive reading and essay writing. Items 5 and 6 were added to the list, because during the study it was revealed that students learned a new meaning for some of the DMs and that they were using some DMs incorrectly. Therefore, when they acquired a new meaning of a certain DM or learned the correct usage of it, it was also counted as an improvement. This list, as a final evaluation, was reviewed at the end of the treatment once again to see the final improvements in DMs. These final improvement lists were used in the data analysis.

At the end of the term (week 14), the students were again asked to write an argumentative essay with a minimum of 900 words in the class with no prior preparation which would stand for the immediate post-test. Three months after this post-test, in the beginning of their second year, the researcher had the same students write a third argumentative essay as the delayed post-test, again with no prior preparation to measure the retention of DMs. This time the word limit was 1000. All the argumentative essay topics were different, and it was ensured that selected topics were within the interest and general knowledge of the participants. The number, type and inaccurate use of DMs used

by the students were counted (by the three researchers following the same procedure for the pre-test) for both immediate and delayed post-tests. As stated above, the word count for each test had been gradually increased, but for the results and data analysis the counts have all been normalized (700 words as the base).

Student Interviews

The students were interviewed by the three researchers simultaneously after the study was completed. The interviews were designed as semi-structured interviews with the aim to get more in-depth knowledge about certain aspects of the study and to triangulate the data obtained from the tests and the improvement lists. The main researcher conducted the interviews while the other two researchers took some notes which were evaluated later together. The inquired topics were the most notable source in DM improvement (EI, IA or both), the benefits and/or handicaps of concordance using, the students' feelings on the feedback they received from the researcher on DM use, whether they felt any improvement regarding the DMs they thought they had already known and if yes, in what way, as well as their level of noticing DMs during the study.

All students said they found concordance studies helpful whereas two of them also pointed out they had found it a bit complicated at first to get used to using the website, which they began to manage after some time. Again all students reported that they found the feedback on DMs helpful, with the oral and metalinguistic feedback during the student-teacher conferences most beneficial (one of the students said she found written corrective feedback on her papers also very helpful).

All the students (including Hakan whose IA-based improvement was higher than EI-based improvement) stated that the EI instruction increased their DM knowledge, as well as their awareness. They also unanimously reported that this awareness enabled them to "notice" DMs much more easily and frequently while reading academic texts than before and this facilitated their DM improvement. This finding is in line with previous research emphasizing the importance of explicit rule presentation and enabling the learners to notice the target L2 forms (e.g. Alanen, 1995; DeKeyser, 1998; Schmidt, 2001). Moreover, with the help of concordance studies, they were exposed to a great number of contexts where the target DMs were used. Four of the six students said they only used dictionaries to look up a word (or a DM) before the study, and that they did not go further to search for example sentences or contexts (the other two students said they even did not have the habit of referring to a dictionary that often). The EI contributed to students' ability to notice DMs and raised their level of awareness. One student candidly expressed her feelings during the interview:

"After we started this study, I felt as if all the reading materials were full of DMs I had never noticed before. Now, the DMs just stick out in whatever I read."

Two other topics that emerged from the interviews were the effect of systematic reading (after the participants took up noticing DMs much better than before) and their DM improvement even for those the students thought they knew and could use well at the beginning of the study.

3. RESULTS AND DATA ANALYSIS

In the data analysis section, two kinds of data will be presented. First, the descriptive statistics based on students' self-reports of improvement in respect to the acquisition of DMs will be given followed by data on which source (EI or IA) was more effective. Second, inferential statistics will be introduced to give the answers of the first four research questions to see if there are statistically significant differences between the pre-, post- and delayed post-tests with regard to the number, variety and correct use of DMs.

Table 2 displays student improvements at the end of the study in the acquisition of target DMs (n=122) and the sources that caused these improvements.

Table 2. Student improvements of DMs and sources of improvement

	%improvement	No of DMs improved	EI	IA	EI+IA*
Alper**	50.00	61	24	10	27
Hakan	29.50	36	7	14	15
Yeliz	45.08	55	11	9	35
Asena	47.54	58	20	9	29
Zerrin	36.88	45	17	9	19
Hande	29.50	36	13	2	21

* Students reported that they acquired or improved a certain DM through both EI and IA.
** All the names are pseudonyms

The improvements of students displayed in Table 2 are based on their self-reports according to the 6-point scale explained above. When students' improvements are examined, it is seen that the improvements range from 29.50% to 50% or, in other words, from 36 to 61 DMs out of 122. It is important while reading the results to bear in mind that some of the DMs were marked as 1 (=I know and I use it confidently) at the beginning of the study which showed that the students had an initial basic knowledge of some of the target DMs. For example; Alper, who showed the greatest improvement, reported that he knew and confidently used 62 of the 122 DMs at the onset of the study whereas Hakan, who showed the least improvement, reported that he knew 80 of the DMs and used them confidently (actually Hakan is a great reader and was one of the two most ambitious participants of the study who fulfilled all the requirements). One noteworthy point is that for some of the DMs which the participants marked as 1 at the beginning, they also marked improvement (Alper - 4 out of 62, Hakan - 20 out of 80, Yeliz - 2 out of 43, Zerrin 3 out of 71, Asena 3 out of 51, with Hande the only exception, no improvement), and which was additionally confirmed during the student interviews. In this sense, though the percentage of Hakan and Hande are the same, Hakan actually showed a much greater improvement than Hande. This detail is revealed for all students in Table 3.

Table 3 shows a second chart where the improvement percentages are calculated by ignoring the DMs already known at the beginning (DMs marked as 1). This time, the improvements of DMs range from 47.36% to 95.31%, which is considerably better than what is presented in Table 2.

Table 3. Student Improvements for DMs which were marked other than 1

	DMs improved	DMs not improved	DMs 1*	% of improvement
Alper**	61	3	62	95.31
Hakan	36	26	80	58.06
Yeliz	55	24	43	69.62
Asena	58	15	52	79.45
Zerrin	45	9	71	83.33
Hande	36	40	46	47.36

* DMs marked as 1 (I know and can use it confidently) at the beginning of the study
** All the names are pseudonyms

With regard to DM improvements, a further analysis was carried out. Each mark in the 1-6 scale was given a point (beginning with 0 for a completely unknown DM and continuing with higher points for increased knowledge of DM) and for each participant the total points were calculated for their markings both at the beginning and the end of the studies. Since the number of the participants is too low (n=5, for this test the 'DM improvement data' of one of the participants has been excluded due to a great number of missing values), a non-parametric test was preferred. The Wilcoxon Signed-Ranks Test was run to see if the self-reported improvements are statistically significant. The results show that the improvements in DMs are statistically significant (Table 4; $Z=-2.023$, $p=.043$, $p<.05$).

Table 4. Wilcoxon Signed-Ranks Test for DM improvement

Posttest – Pretest	n	Mean Rank	Sum of Ranks	z	p
Negative Ranks	0	0.00	0.00	2.023*	.043
Positive Ranks	5	3.00	15.00		
Ties	0				

*based on negative ranks

Considering the sources of DM acquisition and improvement, again based on student self-reports, Table 2 clearly shows that the most effective source for students was the combination of both EI and IA. For all students, the combination of EI and IA played the most important role in DM acquisition. This ranged from 41.66% to 63.63% compared to all improvements. In the second place, EI was most influential for 5 of the 6 students (though in varying degrees) with a frequency range of 19.44% to 39.34% for all improvements. Hakan was the exceptional student who reported that he improved 14 DMs through IA compared to 7 DMs through EI and 15 with the combination of the two. Given the fact that Hakan is a great reader who read the highest number of pages during the study, this result is not surprising. The least effective source was IA with a range of 5.55% to 38.88%. One point is worth mentioning here. The students were asked to mark their sources of improvement for each DM with self-selected labels and, later, the researchers categorized all the improvements as EI, IA or both themselves.

The study was based on a pre-,post- and delayed post-test design and Table 5 displays the descriptive statistics for the three tests.

Table 5. Descriptive statistics of the Three Tests*

Tests for DMs	n	Mean	S. D.	Median	Mnm.	Mxm.
Number of DMs						
Test 1	6	30.46	6.32	31.92	21.04	37.00
Test 2	6	39.38	9.51	39.81	29.00	55.58
Test 3	6	35.54	10.70	34.79	23.33	53.57
Type of DMs						
Test 1	6	19.82	5.60	18.16	13.09	28.03
Test 2	6	26.70	5.76	24.76	21.89	37.74
Test 3	6	22.83	6.68	21.80	15.27	35.13
Wrong Use of DMs						
Test 1	6	1.75	1.59	1.42	0.00	4.68
Test 2	6	2.14	1.57	2.37	0.00	4.07
Test 3	6	1.34	1.11	0.78	0.66	3.48

* test 1, 2 and 3 are pre-test, immediate post-test and delayed post-test respectively

When we look at Table 5, we see that the students used an average of 30.46 DMs in the pre-test and 39.38 DMs in the immediate post-test. Therefore, overall they showed a gain of 8.92 DMs, though they used 35.54 DMs on average in the delayed-post-test 3 months after the immediate post-test with an average loss of 3.84 DMs. The students used an average of 19.82 different types of DMs in the pre-test and 26.70 types of DMs in the immediate post-test. The gain was 6.88 types. In the delayed post-test, they used an average of 22.83 types of DMs and the average loss was 3.87 DMs. With regard to the inaccurate number of DMs in the three tests, we do not observe a regular pattern. In the pre-test, the mean of inaccurate DM use is 1.75 which rises to 2.14 in the post-test. Interestingly, the delayed post-test reveals a mean of 1.34 with a decrease of .80 DMs, which is below the pre-test.

To see whether there was a statistically significant difference between the three tests, a non-parametric test, the Friedman Test, was separately run for the three aspects, namely the number of DMs, types of DMs and number of wrong uses of DMs to assess the improvement of DM use with regard to quantity, variety and accuracy as worded in the research questions. The Friedman Test for the number and the type of DMs used in the three test essays revealed a statistically significant difference for both aspects ($\chi 2(2) = 7.000$, $p = .030$, $p < .05$; $\chi 2(2) = 7.000$, $p = .030$, $p < .05$, respectively – interestingly with the same scores). On the other hand, no statistically significant difference among pre-, post and delayed post-tests with regard to the correct use of DMs in the three test essays was elicited, ($\chi 2(2) = 2.333$, $p = .311$, $p > .05$).

To examine where the statistically meaningful differences actually occurred in the first two aspects (quantity and variety of DMs), we ran separate Wilcoxon Signed-Rank Tests on the different

combinations of related groups. We did the post hoc comparisons for the following combinations for both aspects:

1. Pre-test to post-test
2. Post-test to delayed post-test
3. Pre-test to delayed post-test

The Wilcoxon Signed-Ranks Test for both aspects showed that there was a statistically significant difference from pre-test to post-test (Z=-2.201, p=.028) for the number of DMs used in the test essays but no statistically significant difference from pre-test to delayed post-test (Z=-1.363, p=.173) and from post-test to delayed post-test (Z=-1.363, p=.173). Again for the type of DMs used in test essays, the Wilcoxon Signed-Ranks Test produced statistically significant differences from pre-test to post-test (Z=-2.201, p=.028) and from post-test to delayed post-test (Z=-1.992, p=.046) whereas no statistically significant difference from pre-test to delayed post-test (Z=-1.572, p=.116).

4. DISCUSSION

The first research question investigated whether participants' DM knowledge would improve over an academic term after the combined EI-IA treatment. The results of students' self-report improvement lists indicated a significant difference displayed in Tables 2,3 and 4. The DM improvements ranged from 47.36% to 95.31% (Table 3) with a mean of 48.5 DMs (n=122), including the improvements in DMs they reported they knew well and could use confidently. This improvement was also found statistically significant (Table 4; p=.043) though at a level close to the border level of confidence. The fact that all of the participating students reported improvement is another indicator that the combined EI-IA treatment of the present study was effective in DM improvement. It can be argued that improvement in DM knowledge requires intensive and longitudinal treatment, and better results could be obtained if the length of the study was longer. Overall, this study has contributed to the literature that a combined EI-IA treatment has a significant positive effect on DM acquisition and improvement, at least for the participating students.

The second and third research questions concerned whether the study would lead to enhancement in DM use in quantity and variety. The analysis revealed a statistically significant difference for both quantity and variety (for both aspects, p=.030, p<.05). The post-hoc comparisons further indicated that the significant difference for the quantity of DMs was from pre-test to post-test (p=.028) and for variety of DMs from pre-test to post-test (p=.028) and from post-test to delayed post-test (p=.046). All in all, it could be concluded that a combined EI-IA program supported with concordance studies has a positive effect to increase DM use in quantity and variety, which are two major problems for non-native student writers as explained in the introduction. Students used a broader range of DMs in a greater number in their post-test essays compared to their pre-tests, despite a certain decrease in the delayed post-tests. Given the nature of second language acquisition and

frequent attrition cases together with the scarcity of input during the summer holiday in the EFL setting of Turkey and Azerbaijan, this amount of loss in DM knowledge can be seen as natural. Just as with general DM improvement (mentioned above), the results for quantity and variety of DM use could be much better if the length of treatment and amount of exposure could be higher, though the current results still produced statistically significant differences. The losses in the delayed post-test further suggest that teachers should not introduce DMs once or twice and then give up revision; rather, they should teach DMs in a recycling fashion. The more students will encounter DMs in different contexts, the more likely their retention will be.

Contrary to the second and third research questions, the fourth research question could not be answered positively. No statistically significant difference among pre-, post and delayed post-tests with regard to the wrong number of DMs used in the three test essays was found, (p=.311), which indicated that the instructional treatment did not produce a significant difference in the accurate use of DMs by the participating students. This finding is in line with some studies in the written corrective feedback (WCF) literature (e.g. Fazio, 2001; Truscott, 1996, 2007; Truscott & Hsu, 2008) which claim that WCF does not lead to gains in student writers' accuracy in writing. Though it might be too much of a claim to conclude that WCF is useless in DM improvement with only one study that has six participants, it might be worthwhile to consider a graded type of DM teaching in which a combined EI-IA treatment is emphasized more also for accurate DM use instead of spending time on correcting inaccurate DM use. Needless to say, future studies with larger samples and control groups to assess whether WCF has an effect on the improvement of the accurate use of DMs will lead to more objective judgment of this pedagogical implication.

The last research question queried whether EI or IA or a combination of both was more effective in DM acquisition and improvement. The design for this research question was not experimental, but rather an exploratory result was obtained from students' self-reports. All the participating students reported that they improved their knowledge of DMs the most through both EI and IA, with no exception (with a frequency range from 41.66% to 63.63%). This result, though it cannot be called objective due to the lack of experimental design, is in line with the findings of Hernández (2008) and de la Fuente (2009). Further experimental research with rigorous designs is needed to prove the superior effect of combined EI and IA (or input flood (IF) as Hernández (2008, 2011) called) on DM acquisition and improvement. As Hernández's recent study (2011) has conflicting results when compared to Hernández (2008) and de la Fuente (2009), the amount of exposure for IF-only groups (or IA groups) should be controlled and more longitudinal studies should be carried out. The second most effective source for DM acquisition in our study was EI, followed by IA, as the least effective source. The results that favor a combined EI-IA treatment is parallel to findings of some previous studies (Doughty & Williams, 1998; White, 1998) which propose that students' perception of the relative importance of a certain L2 form can enhance the noticing of that

form, which further facilitates the acquisition of these forms. This was also the case for our students, as also revealed in student interviews. Therefore, any program aiming to teach or enhance DM use might opt to choose a graded curriculum in which EI is given more place at the beginning with less IA activities initially, which is adjusted as students improve their DM knowledge in the opposite direction, namely more IA and less EI. One important point to be mentioned is that the concept of IA followed in this study is not mere exposure to input. Though no enrichment of DMs (as in the IF technique in Hernández (2008, 2011)) was done by the researchers in the texts students were given for extensive reading, attention was paid to make sure that the selected texts were rich in target DMs.

5. CONCLUSION

What emerges out of all the aforementioned results is some pedagogical implications for the teaching of DMs in academic writing. The results of the study clearly show that a combined EI-IA type of teaching DMs has a certain positive effect on DM acquisition when compared to EI or IA alone. Besides the statistical analyses, the student interviews also revealed the same finding. It can be concluded that EI and awareness-raising activities might be a good starting point in teaching DMs before they are exposed to systematic reading and concordance studies where they will encounter the target DMs multiple times in different contexts. With the raised noticing level of the students with regard to DMs, it is hypothesized that they will notice DMs in their subsequent reading, which will facilitate their acquisition of DMs together with their improvement of DM use in quantity and variety.

With all their advantages mentioned above, concordance studies must be a part of teaching academic writing (where technically possible), especially for EFL settings to make up for learners' inadequate exposure to authentic language input. One point to be paid attention by teachers is that corpus websites might not seem friendly-user to students at first. Therefore, they should be helped and guided until they develop a certain familiarity with the use of concordances. The detailed tools of corpus websites, which are more essential for academics and linguists, should not be introduced to students due to potential confusion.[2] For ease of use, teachers should prepare worksheets, handouts and relevant activity materials for their students, at least until students get adequately familiar with the target corpus website.

As for accuracy in DM use, considering the statistically insignificant results, and some of the related literature against WCF, teachers should be more patient with their students and should not immediately perceive lack of fast development in accuracy as failure. Accuracy needs more length of time and exposure, most probably together with a certain amount of EI to develop. While teaching students new DMs and increasing their use of DMs in quantity and variety, teachers should continue EI-IA treatment to provide them with more accurate DM use in a longer period of instruction. Given

[2] After the completion of this study, a new website related to the website used in this study has been launched (http://www.wordandphrase.info), which is primarily designed for teachers and learners.

the inconclusive study results in the WCF literature on part of the efficiency of error correction, instead of spending ample time on correcting DM errors, IA treatment could be intensified particularly at situations in which students' inaccurate DM use is more than expected or not improved despite error treatment.

Since the number of participating students is too low and there was no control group (due to institutional limitations at the time of the study), the findings of this study cannot be generalized with full confidence. Nevertheless, teachers of academic writing can choose to select this type of combined EI and IA supported by concordance studies for the teaching of DMs at least in similar settings, namely for small groups of students in EFL contexts.

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Appendix

Corpus of Contemporary American English is a 425 million-word corpus freely available online (Figure 1). It is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts. The interface allows search for exact words or phrases, wildcards, lemmas, part of speech, or any combinations of these. Collocates (e.g. all nouns somewhere near faint, all adjectives near woman, or all verbs near feelings), which gives good insight into the meaning and use of a word can also be searched within a ten-word window. Comparison among genres is also possible. During the study, the students entered the DMs in the search tool, marked the KWIC (key word in context) button, selected the "academic" genre and produced 100 concordance lines for each target item. The default number of collocates for each entry was four to each direction (before and after the target word/phrase) and it was maintained. Each collocate was highlighted with a different color according to its part of speech (as shown in Figure 2). To see from which source the concordance line was quoted

and see the target entry in its expanded context, the students clicked on “ACAD” at the right beginning of the line. They, further, studied the DMs in a more expanded context derived from authentic texts.

Figure 1. Website for concordance studies

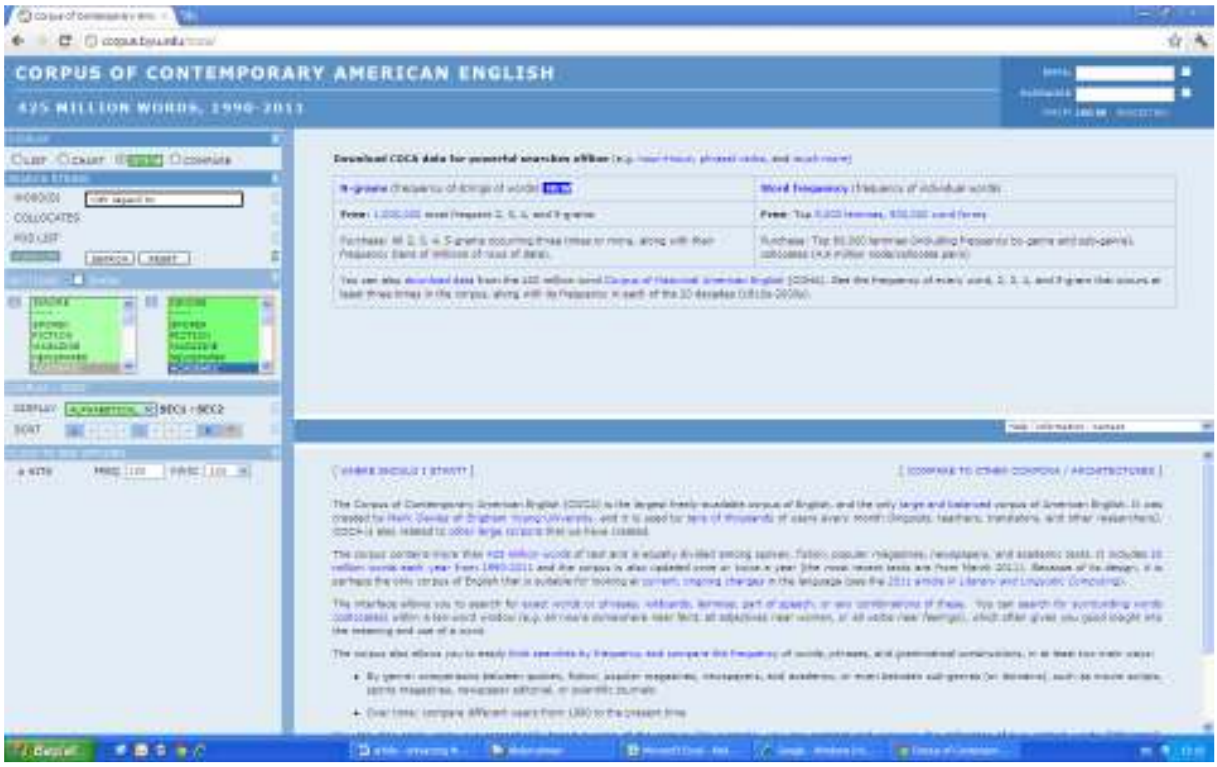

Figure 2. Concordance lines for the DM “with regard to”.