

DATA DRIVEN LEARNING AND THE USE OF INTERACTIVE
METADISCOURSE MARKERS (TRANSITIONS, FRAME MARKERS AND
CODE-GLOSSES) IN ARGUMENTATIVE PARAGRAPHS WRITTEN BY
FRESHMEN PRE-SERVICE ENGLISH LANGUAGE TEACHERS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF ARTS
IN
THE DEPARTMENT OF ENGLISH LANGUAGE TEACHING

JULY 2021

Approval of the thesis:

**DATA DRIVEN LEARNING AND THE USE OF INTERACTIVE
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FRESHMEN PRE-SERVICE ENGLISH LANGUAGE TEACHERS**

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ABSTRACT

DATA DRIVEN LEARNING AND THE USE OF INTERACTIVE METADISOURSE MARKERS (TRANSITIONS, FRAME MARKERS AND CODE-GLOSSES) IN ARGUMENTATIVE PARAGRAPHS WRITTEN BY FRESHMEN PRE-SERVICE ENGLISH LANGUAGE TEACHERS

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July 2021, 270 pages

This study attempts (1) to determine the types, frequencies and functions of interactive metadiscourse devices i.e. transitions, frame markers and code glosses employed by freshmen pre-service English language teachers of Turkish L1 background in their English argumentative paragraphs, (2) to find out the needs of freshmen pre-service English language teachers in the use of interactive metadiscourse markers (3) to unveil the reasons behind their employment and avoidance of particular markers and (4) to investigate both immediate and long-term effects of data-driven learning method on the participants' use of these markers. To accomplish the goals of the study, data from 7 participants are collected through five tools: (1) background questionnaire, (2) argumentative paragraphs written before, during and after the instruction, (3) surveys implemented during and after the instruction process, (4) participants' diaries and (5) stimulated recall sessions and follow-up interviews. The data obtained are analyzed both qualitatively and quantitatively by adopting longitudinal, concurrent triangulation mixed method design. The findings indicate that freshmen pre-service English

language teachers improve their use of interactive metadiscourse markers in terms of accuracy and variety thanks to the data-driven learning mediated student specific interactive metadiscourse marker instruction and gain awareness about the use and importance of these devices. Therefore, it is suggested that sparing class time for specific interactive metadiscourse marker instruction is essential. Moreover, using corpus-informed materials motivates learners' since they are exposed to authentic examples and are able to analyze them in terms of interactive metadiscourse use.

Keywords: Metadiscourse, Interactive Metadiscourse Markers, Data Driven Learning, TOEFL11 Corpus

ÖZ

VERİ YÖNETİMLİ ÖĞRENME VE BİRİNCİ SINIF İNGİLİZCE
ÖĞRETMENLİĞİ BÖLÜMÜ ÖĞRENCİLERİ TARAFINDAN YAZILAN
TARTIŞMACI PARAGRAFLARDA ETKİLEŞİMLİ ÜST SÖYLEM
YAPILARININ (BAĞLAYICILAR, ÇERÇEVE BELİRLEYİCİLER VE KOD
ÇÖZÜMLEYİCİLER) KULLANIMI

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Yüksek Lisans, İngiliz Dili Öğretimi Bölümü

Tez Yöneticisi: Prof. Dr. Çiler Hatipoğlu

Temmuz 2021, 270 sayfa

Bu çalışmanın amacı (1) birinci sınıf İngilizce öğretmenliği bölümü öğrencileri tarafından yazılan tartışmacı paragraflarda kullanılan etkileşimli üst söylem araçlarının (bağlayıcılar, çerçeve belirleyiciler ve kod çözümleyiciler) çeşitlerini, sıklıklarını ve işlevlerini tanımlamak, (2) birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin etkileşimli üst söylem araçlarının kullanımı konusundaki ihtiyaçlarını belirlemek, (3) öğretmen adaylarının bu araçları kullanılma ve/veya onlardan kaçınmalarının altında yatan sebepleri ortaya çıkartmak ve (4) veri yönetimli öğrenme metodunun öğretmen adaylarının bu araçları kullanmalarını geliştirmelerindeki etkisini bulmaktır. Bu amaçla, birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinden elde edilen veriler beş araç ile toplanmıştır: (1) Geçmiş anketi, (2) eğitim öncesinde, eğitim boyunca ve eğitimden sonra öğretmen adayları tarafından yazılan İngilizce tartışmacı paragraflar, (3) eğitim boyunca ve sonrasında öğrencilere verilen anketler, (4) öğrencilerin günlükleri ve

(5) takip görüşmeleri. Elde edilen veriler karma yöntemli araştırma metodu baz alınarak hem nicel hem de nitel olarak analiz edilmiştir. Çalışmanın bulguları, birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin, veri yönetimli öğrenme metodu ile kendilerine özel hazırlanmış eğitimler sayesinde etkileşimli üst söylem yapılarını kullanımlarını çeşitlilik ve daha doğru kullanma konusunda geliştirdiklerini ve bu yapıların kullanımı ve önemi hakkında farkındalık oluşturduklarını göstermiştir. Bu yüzden, sınıf içinde bu yapıların eğitimine özel olarak yer verilmesi önerilmektedir. Ayrıca derlem tabanlı materyaller öğrencileri özgün örnekleri analiz etmelerine fırsat verdiği için motive edicidir.

Anahtar Kelimeler: Üst Söylem, Etkileşimli Üst Söylem, Veri Yönetimli Öğrenme, TOEFL 11 Derlemi

To my family

ACKNOWLEDGMENTS

First and foremost, I would like to express my heartfelt gratitude to my supervisor Prof. Dr. Çiler Hatipođlu who has always been enthusiastic, encouraging and understanding. Even during the Covid-19 pandemic, she provided me the opportunity to carry on this longitudinal research, left none of my questions unanswered and always made herself available. Writing this thesis would not have been possible for me without her insightful feedback and tireless guidance.

I would also like to take this opportunity to present my genuine thankfulness to my thesis defense jury members Prof. Dr. Hacer Hande Uysal Grdal and Assoc. Prof. Perihan Savař for devoting their valuable time to provide constructive feedback and profound comments to improve my research.

I am indebted to my dear friend Nur Yađmur Demir with whom I pursued my M.A. studies and been through the thesis writing process. No amount of thanks would be enough for her selfless efforts and contribution for my data analysis process. I am grateful to zlem Kargılı Torun for always being there for me whenever I needed to share my happiness or a shoulder to cry on. I am also thankful to Burak Yemenici, Eda Marangoz, Merve Aydın and Halil Yıkılmaz for their moral support.

I cannot thank my family enough for their unconditional love and unlimited support. I sincerely appreciate everything they have done for me throughout my life. My deepest thanks go to my spouse Meriç Tmer who has always tried his best to make things easier and more bearable for me with his unwavering support and loving heart.

Finally, I wish to thank TBİTAK for providing me financial support with its 2210/A National M.A. Scholarship Program.

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LIST OF ABBREVIATIONS

CDG	Code Gloss
CDG-P1	While Argumentative Paragraph 5
CU	Correct Use
EFL	English as a Foreign Language
EPE	English Proficiency Exam
ESL	English as a Second Language
F	Frequency
FM	Frame Markers
FM-P1	While Argumentative Paragraph 4
IU – C	Incorrect Use in terms of Context
IU – G	Incorrect Use in terms of Grammar
L1	First Language
L2	Second Language
LMS	Learning Management System
M	Mean
MDM	Metadiscourse Marker
N	Number
OU	Overuse
TEFL	Teaching English as a Foreign Language
TM	Transition Marker
TM-AD-P1	While Argumentative Paragraph 1
TM-COM-P1	While Argumentative Paragraph 2
TM-CON-P1	While Argumentative Paragraph 3
UU	Underuse

CHAPTER 1

INTRODUCTION

This chapter presents the background to the study, its significance and the research questions that are aimed to be answered.

1.1. Background to the Study

English is the new lingua franca of our age. Thus, to address their needs, today courses that enable EFL learners to be competent in communication gained popularity. To that end, along with several skills and strategies trainings, written discourse competence has also been prioritized. Prommas and Sinwongsuwat (2011) argue that writing does not only include writing grammatical sentences one after the other and thus, cohesion and coherence within the text are highly significant factors in determining one's overall written discourse competence. Indeed, this skill includes genre appropriate writing, using the language appropriately and providing relevant and valid ideas in a coherent way.

Moreover, sociocultural norms and expectations of the target language are also important factors to be considered when it comes to 'written discourse competence'. According to Kaplan (1966), how writing is perceived and constructed is language and culture specific. That is why, speakers of different languages and cultures may employ different strategies when writing. For this reason, the unique rhetorical elements and the strategies employed for writing in L2 learners' native language may not fit into the expectations of their target language and this may lead to misunderstandings and not being regarded as a competent English user (Uysal, 2008). Similarly, Hatipoglu & Algı (2017, pp. 86) suggest that that writing in L2 contains "learning, organizing knowledge and thinking within the limits of the specific discourse genre". Thus, being aware of the necessary writing strategies of

English is highly critical for EFL learners. Yet, several studies have found out that accomplishing this is highly demanding for L2 learners as it requires them to focus on several different aspects of the language that they are learning (e.g., Field and Yip, 1992; Gilquin and Paquot, 2008; Granger and Tyson, 1996; Lorenz, 1999).

Coined by Zellig Harris in 1959, metadiscourse, is defined as “the linguistic and interpersonal devices which explicitly refer to the organization of the discourse or the writer’s stance towards either its content or the reader” (Hyland, 1998, p. 438). That is, it serves as a bridge between the writer and reader since it makes the transfer of the writer’s intended meaning possible and demonstrates how the ideas in the text are linked. (Vande Kopple, 1985; Crismore, Markkanen and Steffensen, 1993). Thus, metadiscourse is one of the ways that one can observe how writers construct their ideas, how they frame their thoughts, knowledge and beliefs into the expected convention and rhetoric of the language that they are using and organize them in accordance with the expectations of their audience (Hyland, 2005).

Nevertheless, understanding metadiscourse may be challenging since to position oneself and facilitate communication between the writer and the reader one would employ various linguistic elements that cannot be limited to a set of standardized structures (Hyland and Tse, 2004). Furthermore, because of the differences across cultures in terms of metadiscourse usage, it is even more complex to use metadiscourse in one’s target language (Bogdanovic & Mirovic, 2018; Hatipoglu & Algi, 2018).

Despite its significance, except for the additional points or language boxes in teaching materials and coursebooks, not many courses focus primarily on metadiscourse markers (Williams, 1981; Steffensen & Cheng, 1996; Bogdanovic & Mirovic, 2018). As a result, written products of EFL learners differ significantly when it comes to the rhetoric of English, and this leads written products of EFL learners to be considered as unqualified (Intaraprawat & Steffensen, 1995). On this account, there is a need for specific metadiscourse marker instruction and therefore

research about material development and metadiscourse marker instruction is necessary (Algi, 2012; Ulucay, 2014; Daşkın & Hatipoglu, 2019; Sancak, 2019).

Data Driven Learning (DDL) is a recent method in the field of English language teaching. In this method, language learners are expected to employ corpus data to learn and use their target language through discovery learning. Previous research on the pedagogical value of DDL has verified that it is beneficial for second/foreign language learning for general purposes (Boulton & Cobb, 2017) as well as target vocabulary acquisition (Lee, Warschauer, & Lee, 2019). Moreover, language learners' attitudes towards the inclusion of corpora have mostly been positive (Bernardini, 2004; Crosthwaite, 2017; Geluso & Yamaguchi, 2014; Kennedy & Miceli, 2001; Thurstun & Candlin, 1998). Therefore, DDL tends to be a prosperous method in second/foreign language learning (Chen & Flowerdew, 2018a). Nevertheless, in spite of its merits, DDL has not been utilized commonly in language classroom (Boulton, 2017; Yoon, 2011). On this account, more research to develop different ways to integrate DDL is necessary (Chen & Flowerdew, 2018a). In addition, there is also a need for empirical research to find out the effectiveness of DDL in several contexts with different learner groups (Vyatkina, 2016).

In the light of the current issues in research on metadiscourse instruction and effectiveness of DDL, the present study aims to fill the gaps in the literature by finding out the effect of DDL on the use of interactive metadiscourse markers (transitions, frame markers and code glosses) of freshmen year EFL teachers.

1.2. Significance of the Study

For almost half a century, scholars have reported that using appropriate cohesive devices to organize their texts and building a relationship with their audience are challenging phenomena for second/foreign language learners (Hyland & Milton, 1997; Chan & Tan, 2010; Algi, 2012; Ho & Li, 2018; Yuksel & Kavanoz, 2018; Qin & Uccelli, 2019; Uluçay, 2014). Nonetheless, when the previous studies about metadiscourse markers are examined thoroughly, it can be observed that quite a few of studies have focused on the specific metadiscourse marker instruction and its

effects on participants' metadiscourse marker use (e.g., Dastjerdi and Shirzad, 2010; Yaghoubi and Ardestani, 2014; Kaya and Sofu, 2020) although there are studies that have investigated the use of metadiscourse markers of native writers (e.g., Hyland and Tse, 2004) and non-native writers (e.g., Kawase, 2015) as well as the ones that compare the metadiscourse usage of native and non-native speakers of English in terms of accuracy (e.g., Adel, 2006; Dumlao and Wilang, 2019), and frequency (e.g., Anwardeen, Luyee, Gabriel and Kalajahi, 2013). Moreover, only Kaya and Sofu (2020) have primarily addressed to this issue in the Turkish context. Hence, little is known about whether metadiscourse marker instruction improves the way Turkish EFL learners' employ these markers and if it does, to what extent such an instruction is effective.

Also, Hartnett (1986) suggested that what differentiates good writers from the poor ones is how these devices are employed rather than the specific set of devices used. Adel (2006) further explains this issue by proposing two factors. Firstly, she suggests that different genres require different metadiscourse marker use. Secondly, writers are required to be aware of these metadiscourse markers. Argumentative paragraph is written to argue for or against a claim to let the reader understand one's point of view (Al-Qur'an, 1994). It is an essential genre when it comes to prove one's overall language proficiency and academic writing skills since many institutions as well as international language proficiency exams such as IELTS and TOEFL ask their examinees to write a paragraph or essay in this genre. To that end, training undergraduate EFL learners specially on metadiscourse markers within the boundaries of argumentative paragraph genre would be meaningful to meet and understand their needs. This would further be beneficial for material development.

According to Sancak (2019), one aspect of metadiscourse that is found to be challenging to learn and employ by the Turkish EFL learners is interactive metadiscourse markers. According to Hyland (2005, pp.93) they "indicate discourse organization and clarify propositional connections and meaning". However, when the available literature is investigated, it is found that studies that primarily focus on undergraduate EFL learners' use of interactive metadiscourse markers are rare (e.g., Sancak, 2019) whereas there are studies on the use of interactional metadiscourse

markers of undergraduate EFL learners (Crismore, et al., 1993; Ädel, 2006; Bayyurt & Akbas, 2014; Hatipoglu & Algi, 2017; Hatipoglu & Algi, 2018; Can, 2006; Yuksel & Kavanoz, 2018). In consideration of this, in order not to load the participants with both interactive and interactional metadiscourse markers within the limited time constraints (i.e., approx. 45 minutes per week) and keep the scope of the current study, which adopted mixed-method approach, the aim of the present study is limited to determine the types, frequencies and functions of interactive metadiscourse devices employed by freshmen pre-service English language teachers of Turkish L1 background in their English argumentative paragraphs.

Moreover, investigating their journey on the employment of interactive metadiscourse markers is also quite crucial for language teachers to examine and find the most common problems and provide their learners with suitable and appropriate materials to guide their learners (Sancak, 2019). That is why, another aim of this study is to find out the needs of freshmen pre-service English language teachers in the use of interactive metadiscourse markers to unveil the reasons behind their employment and avoidance of these markers.

Steffensen and Cheng (1996) researched about the effect of instruction on the use of metadiscourse markers employed by university-level native speakers of English, and the found out that teaching metadiscourse had a good effect on the improvement of employment of metadiscourse forms. Taking the findings of this study into account, studying the effect of metadiscourse marker instruction and the instructional materials used in non-native context is plausible. However, when it comes to material development specifically for interactive metadiscourse markers, there seems to be a gap in the literature unlike interactional metadiscourse markers (Algi, 2012; Ulucay, 2014).

Sancak (2019), found out that even though metadiscourse marker instruction and practice is significant, the existing materials for interactive metadiscourse marker teaching are unqualified. Thus, she called teachers and material developers to reassess the existing materials on interactive metadiscourse markers and develop new ones. Taking this call into account, the current study primarily investigates the

effect of corpus-informed materials on the participants' use of interactive metadiscourse markers by adopting longitudinal approach in order to find out if learners develop competence over time and how concurrent training affects learners interactive MDM use.

There are two main advantages of utilizing corpus-informed materials. Firstly, it enables EFL learners "to produce more appropriate and natural writings" (Sancak, 2019, pp.124) by eliminating the negative transfer phenomenon. Secondly, it provides recent information about how the target language is being used by its expert users. However, even if there are several studies that aim at finding out whether data driven learning method is beneficial exist (e.g., Ackerley, 2017; Akıncı and Yıldız, 2017; Chujo, Anthony, Oghigian and Chujo, 2012; Lee and Lin, 2019; Smith, 2020; Smart, 2014; Vyatkina, 2016; Yoon and Jo, 2014) the studies that focused on the efficacy of data driven learning method on metadiscourse markers are rare (e.g., Sun and Hu, 2020) and to the best of the researcher's knowledge no research on the effect of DDL specifically on the use of interactive metadiscourse markers can be found in the literature.

Finally, the related previous studies mostly have quantitative methodology (e.g., frequency analysis) or they focused mainly on the variety, accuracy and appropriacy of the MDMs and they analyzed one type of data, such as research articles or student papers (e.g., Chan & Tan, 2010; Asassfeh, Alshboul & Al-Shaboul, 2013; Ho & Li, 2018; Yuksel & Kavanoz, 2018; Qin & Ucelli, 2019). Consequently, the current literature lacks the reasons behind learners' metadiscourse marker employment and/or avoidance. According to Hyland (2005), "The study of metadiscourse should benefit from multiple methods" (p. 199). Hence, it is intended to fill this gap with this research by triangulating qualitative and quantitative data collected longitudinally in this study. Accordingly, weekly student diaries, three online surveys and follow-up interviews are utilized to further explain the results of students' pre-, while and post-training argumentative paragraphs to gain deeper insights.

1.3. The Purpose and Research Questions of the Study

The present study primarily aims at investigating the effect of data-driven learning method on the use of interactive metadiscourse devices i.e., transitions, frame markers and code glosses on the argumentative paragraphs of freshmen pre-service English language teachers of Turkish L1 background by determining the types, frequencies and functions of these markers employed by the participants in their pre-, while and post-treatment English argumentative paragraphs. Evidentials and endophoric markers are excluded from the current study even though they are also in the category of interactive metadiscourse markers according to Hyland (2005). There are two reasons behind why they were excluded. Firstly, evidentials are used when the writer refers to information from other texts; however, since the participants were not expected to get help from additional resources and write their argumentative paragraphs in 30 minutes, it was thought the number of the occurrences of evidentials would be quite rare, if not any. Secondly, endophoric markers are used when the writer refers to the information in other parts within the text. Nevertheless, due to the number of words the participants were required to write (i.e., 150-200 words), it has been contemplated that no incidents of endophoric markers would be encountered. Therefore, these interactive metadiscourse markers were not included for the current study.

Moreover, this study also tries to find out the needs of freshmen pre-service English language teachers in the use of interactive metadiscourse markers and unveil the reasons behind participants' employment and avoidance of these markers via student diaries, post-treatment interviews and online surveys. Therefore, this current MA thesis seeks answers to the following questions:

1. How frequently, how appropriately and in what level do freshmen pre-service English language teachers employ transitions, frame markers and code glosses in their pre-training argumentative paragraphs written in English?

2. What kind of problems do freshmen pre-service English language teachers experience in their pre-training argumentative paragraphs written in English?
3. a) What is the immediate effect of the student-specific instruction with data driven learning method on the use of transitions, frame markers and code glosses in their argumentative paragraphs written in English?
b) What is the long-term effect of the student-specific instruction with data driven learning method on the use of transitions, frame markers and code glosses in their argumentative paragraphs written in English?

With the findings of the study, a specific interactive metadiscourse marker instruction model could be suggested and teachers, language teaching institutions, material developers and textbook designers would benefit from the findings of the study since previous research mostly pointed out the lack of qualified materials in this area.

CHAPTER 2

THEORETHICAL FRAMEWORK

This chapter presents various earlier understandings and categorizations of the term ‘metadiscourse’, introduces Hyland’s (2005) definition of metadiscourse and his ‘interpersonal model of metadiscourse’, which is the analytic framework of the current study, and presents ‘data driven learning’ methodology.

2.1. Definitions of Metadiscourse

Coined by Zellig Harris in 1959, the term metadiscourse serves as a tool to understand how spoken or written language work in terms of transferring what is meant to the text and its recipient. Since then, metadiscourse has been used as an umbrella term for various cohesive and interpersonal devices that turn sentences written one after the other into comprehensible paragraphs. Moreover, as it has been perceived in different ways, it has also been used to refer to different aspects of the language that is used. That is why, it has been a ‘fuzzy’ term when it comes to defining it (Nash, 1992). Initially, it was defined as ‘discourse about discourse’ and this definition highlights its leading role in grasping the writer’s text (Harris, 1959). Later, the definition has been further developed by Williams (1981), Vande Kopple (1985) and Crismore (1989).

Beauvais (1989) perceived metadiscourse as ‘explicit illocutionary predicates’ such as “I believe that” whereas Bunton (1999), Mauranen (1993) and Valero-Garces (1996) defined metadiscourse as ‘features of rhetorical organization’ such as “we now turn to another topic”. However, Hyland (2005) opposes those definitions of metadiscourse since these definitions are only limited to certain lexico-grammatical structures and they do not put emphasis on the writer’s presence by considering

their choices in using other aspects of language such as alternating voices (i.e., active or passive) or conjunctions (contrastive, additive, or consequential).

Within the same decade, another perception of metadiscourse was put forward by Schiffrin (1980). She used the term “metatalk” to refer to different linguistic tools specifically chosen by the writer in attempt to lead the reader through the text to help them get their point and stance. Similarly, Williams (1981) defined metadiscourse as “writing about writing, whatever does not refer to the subject matter being addressed (p. 226)”. Vande Kopple (1985) interpreted this definition as the fact that writing involves two levels and stated that on the first level, we write to provide information about a topic but on the second level, we write not to add further propositional text but in order “to help our readers organize, classify, interpret, evaluate and react to the text” (p. 83). Therefore, he saw metadiscourse as the collection of several linguistic materials that show the presence of the producer of the text. In the same vein, Crismore, Markkanen and Steffensen (1993) highlighted the presence of the writer – whether ‘overt’ or ‘non-overt’ – in organizing and evaluating the information to guide the learner to interpret their text.

By building on the existing definitions, Hyland (2005) proposes that metadiscourse indeed is a “social and communicative process” between writers and readers (p.14) but also adds the notion of “the explication of writer’s awareness of the text itself, rather than the reader” (p.17). Therefore, Hyland (2005) adds to the definition of metadiscourse: “the writer's awareness of the reader and his or her need for elaboration, clarification, guidance and interaction” (p.17). He further explains that “in expressing an awareness of the text, the writer also makes the reader aware of it, and this only happens when he or she has a clear, reader-oriented reason for doing so” (p.17). Later, Hyland (2017) states that metadiscourse refers to “how we use language out of consideration for our readers or hearers based on our estimation of how best we can help them process and comprehend what we are saying” (p.17). Furthermore, unlike the earlier understandings of metadiscourse, Hyland (2005) puts forward that any rhetorical feature can be valid only when it is analyzed within the context. Therefore, in the light of these explanations, Hyland (2005) defines metadiscourse as: “the cover term for the self-reflective expressions used to

negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community” (p.37). With this definition, it is clear that whereas Hyland (2005) agrees with some aspects of the earlier definitions of metadiscourse, he also proposes different concepts such as ‘evaluation’, ‘stance’ and ‘engagement’. Moreover, contrary to the earlier definitions, he suggests that there is an unlimited set of devices that can or cannot be counted as metadiscourse depending on the context that they are in. In other words, he analyzes metadiscourse through “functionally-oriented perspective” (p.38). According to Hyland and Tse (2004) there are three key principles of metadiscourse:

“(1) metadiscourse is distinct from propositional aspects of discourse, (2) metadiscourse refers to aspects of the text that embody writer—reader interactions, (3) metadiscourse refers only to relations which are internal to the discourse” (p.159)

Hyland and Tse (2004) explain their first principle with the metaphor of “glue” (p. 161) by suggesting that the function of metadiscourse goes beyond linking the parts of the text. Rather, it is to link the whole text to the discourse by considering the needs, existing knowledge, prior experiences, and understandings of the reader. They also oppose Vande Kopple (2002) in that unlike his distinct ‘levels of meaning’, they suggest that “both propositional and metadiscoursal elements occur together in texts” (Hyland and Tse, 2004, p.161). The second principle is clarified by Hyland and Tse (2004) by putting forth all the metadiscourse is essentially interactional. By stating this, Hyland and Tse (2004) objects to the ‘text connectives’ of Vande Kopple (1985) and ‘logical connectives’ of Crismore et. al., (1993) by discussing that the concept of ‘textual metadiscourse’ is:

... the result of decisions by the writer to highlight certain relationships and aspects of organization to accommodate readers' understandings, guide their reading, and make them aware of the writer's preferred interpretations. It therefore contributes to the interpersonal features of a text (Hyland and Tse, 2004, p.164).

Finally, Hyland and Tse’s (2004) proposition which states that the metadiscoursal value of the language devices is context-bound, brings about the need of distinction between their reference to the ‘internal’ and ‘external’ discourse. According to them, internal reference stands for the metadiscourse markers that function to connect “the situations described by the propositions and [are] solely

communicative” while external reference “refers to those situations themselves” (Hyland and Tse, 2004, p.165). To illustrate their distinction Hyland and Tse (2004) use these examples:

(11) Crops accounted for a significant proportion of heavy metals dietary intake. The reasons are two folds. *Firstly*, crops are being the bottom positions of many food chains and food webs. *Secondly*, vegetables are one of the major dietary components of Hong Kong people. (Bio MSc)

Firstly, the importance of complete images in compression is described in section one. *Secondly*, predictors used for lossless image coding is introduced. *Thirdly*, the results and analysis are used to show the performance of the proposed compression. (EE PhD)

(12) For the boric acid indicator, *firstly*, 5g of boric acid crystals was dissolved in 200ml of warm distilled water, *then*, 40ml of methyl red indicator [0.02 per cent (w/v) in 60 per cent ethanol] and 15ml of bromocresol green indicator [0.1 per cent (w/v) in 60 per cent ethanol] were added to the boric acid solution. (Bio PhD)

Firstly, numbers of observation in first segment (N₁) and in second segment (N₂) are combined. A ‘pooled’ regression is conducted, which is equation (LL-1). *Secondly*, individual regressions of the two periods have been done as well. . . *Then*, F test is applied . . . (BS PhD) (p.166)

As it can be seen, while the two examples in (11) the sequencing devices are internal to the discourse, the ones in (12) are external since they are used to indicate steps.

In summary, this section briefly overviewed the various understandings and definitions of metadiscourse and elaborated on the definition of Hyland (2005) and key principles of metadiscourse suggested by Hyland and Tse (2004) in detail.

2.2. Categorizations of Metadiscourse

Since the term ‘metadiscourse’ gained popularity in 1980s, various understandings and definitions were suggested, as presented above. Hence, there has been several categorizations of metadiscourse markers originating from those different definitions of metadiscourse (e.g., Vande Kopple, 1985; Crismore et al, 1993; Hyland, 2005, Ädel, 2006).

Table 2. 1. Vande Kopple’s Taxonomy of Metadiscourse (1985)

Textual Metadiscourse
Text connectives - used to help show how parts of a text are connected to one another. Includes sequencers (<i>first, next, in the second place</i>), reminders (<i>as / mentioned in Chapter 2</i>), and topicalizers, which focus attention on the topic of a text segment (<i>with regard to, in connection with</i>).
Code glosses - used to help readers to grasp the writer's intended meaning. Based on the writer's assessment of the reader's knowledge, these devices reword, explain, define or clarify the sense of a usage, sometimes putting the reformulation in parentheses or marking it as an example, etc.
Validity markers - used to express the writer's commitment to the probability or truth of a statement. These include hedges (<i>perhaps, might, may</i>), emphatics (<i>clearly, undoubtedly</i>), and attributors which enhance a position by claiming the support of a credible other (<i>according to Einstein</i>).
Narrators - used to inform readers of the source of the information presented - who said or wrote something (<i>according to Smith, the Prime Minister announced that</i>).
Interpersonal metadiscourse
Illocution markers - used to make explicit the discourse act the writer is performing at certain points (<i>to conclude, I hypothesize, to sum up, we predict</i>).
Attitude markers – used to express the writer's attitudes to the prepositional material he or she presents (<i>unfortunately, interestingly, I wish that, how awful that</i>).
Commentaries - used to address readers directly, drawing them into an implicit dialogue by commenting on the reader's probable mood or possible reaction to the text (<i>you will certainly agree that, you might want to read the third chapter first</i>).

To start with Vande Kopple’s (1985) classification, metadiscourse markers are divided into two main categories (i.e., textual metadiscourse and interpersonal metadiscourse) that include seven micro types which are demonstrated in Table 2.1. The taxonomy of Vande Kopple (1985) served as a base and has been evaluated and developed by other scholars. Furthermore, it has been used for many studies (e.g., Crismore and Farnsworth, 1989, 1990; Intaraprawat and Steffensen, 1995; Cheng and Steffensen, 1996). However, Hyland (2005) criticized it by commenting that the unclear categorization of the items and the quite similar functions of the items in different categories lead to difficulties in implementation.

Due to the limitations of Vande Kopple’s Taxonomy of metadiscourse (1985), it was revised by several scholars including himself (e.g., Nash, 1992; Xu, 2001; Vande Kopple, 2002) but the most notable ones among them were Crismore et al. (1993). Their taxonomy can be seen in table 2.2.

When the two taxonomies are compared, it can be seen that Crismore et al. (1993) expands the category of textual metadiscourse, moves micro category of illocution markers to brand new ‘interpretive markers’ category under textual metadiscourse

macro category together with code glosses and terminates ‘narrators’ category of Vande Kopple (1985). The function of two new categories under textual metadiscourse (i.e., *textual markers* and *interpretive markers*) are explained by Crismore et. al. (1993) as the former referring to features which help organize the discourse and the latter to “help readers interpret and better understand the writer’s meaning and writing strategies” (p.47).

Table 2. 2. Crismore et al.'s Categorization of Metadiscourse (1993)

Category	Function	Examples
Textual Metadiscourse		
1. Textual Markers		
Logical Connectives	Show connections between ideas	therefore; so; in addition; and
Sequencers	Indicate sequence/ordering of material	first; next; finally; 1, 2, 3
Reminders	Refer to earlier text material	as we saw in Chapter one
Topicalizers	Indicate a shift in topic	well; now I will discuss ...
2. Interpretive Markers		
Code glosses	Explain text material	for example; that is
Illocution markers	Name the act performed	to conclude; in sum; I predict
Announcements	Announce upcoming material	in the next section ...
Interpersonal Metadiscourse		
Hedges	Show uncertainty to truth of assertion	might; possible; likely
Certainty markers	Express full commitment to assertion	certainly; know; shows
Attributors	Give source/support of information	Smith claims that ...
Attitude markers	Display writer's affective values	I hope/agree; surprisingly
Commentary	Build relationship with reader	you may not agree that ..

Hyland (2005) refers to the categorization of metadiscourse of Crismore et. al. (1993) as ‘an improvement on Vande Kopple’s categorization (1985) since the former reorders the several functions of metadiscourse. However, he also states that there are still some issues to be improved. Firstly, according to Hyland (2005), the fact that ‘reminders’ whose function is to remind the reader what has already been said is in the category of textual markers while ‘topicalizers’ which have very similar function as *reminders* are in the category of interpretive markers is quite confusing. Thus, he finds the division of textual markers into two categories complicated. Secondly, according to Hyland (2005), another confusion stems from the organization of ‘logical connectives’ due to Crismore et. al. (1993)’s viewing this category as a syntactic category rather than a functional one. Hyland (2005) opposes this view by stating that “there is always more than one way of expressing

an utterance, and every realization can be seen as the expression of a conscious writer choice [...] The same grammatical choices can clearly work metadiscoursally and create well-formed sentences.” (p. 34).

Consequently, according to Hyland (2005), the metadiscoursal value of an item should not be evaluated by the (un)grammaticality test in the event of the removal of the item. Instead, the emphasis should be on the specific function of the item in that peculiar sentence since both Hyland and Tse (2004) and Hyland (2005) adopted ‘functionally oriented’ perspective while categorizing metadiscourse. Moreover, the key principles of Hyland and Tse (2004) are also taken into consideration while categorizing Hyland’s (2005) Interpersonal Model of Discourse.

Table 2. 3. Interpersonal Model of Metadiscourse by Hyland (2005)

Category	Function	Examples
Interactive	Help to guide the reader through the text	Resources
Transitions	Express relations between main clauses	in addition; but; thus; and
Frame markers	Refer to discourse acts, sequences or stages	finally; to conclude; my purpose is
Endophoric Markers	Refer to information in other parts of the text	noted above; see Fig; in section 2
Evidentials	Refer to information from other texts	according to X; Z states
Code glosses	Elaborate propositional meanings	namely; e.g.; such as; in other words
Interactional	Involve the reader in the text	Resources
Hedges	Withhold commitment and open dialogue	might; perhaps; possible; about
Boosters	Emphasize certainty or close dialogue	in fact; definitely; it is clear that
Attitude markers	Express writer’s attitude to proposition explicit reference to author(s)	unfortunately; I agree; surprisingly
Self mentions	Explicit reference to author(s)	I; we; my; me; our
Engagement markers	Explicitly build relationship with reader	consider; note; you can see that

As can be seen in table 2.3, the model consists of two dimensions of interaction (i.e., interactive and interactional) which are previously suggested by Thompson and Thetala (1995); however, Hyland (2005) includes stance and engagement features (i.e., self-mentions and engagement markers).

Interactive resources help the writer (or the speaker) organize the information they plan to share in order it to be considered coherent and convincing by their reader or

audience. There are five sub-categories of interactive metadiscourse according to Hyland (2005).

Transitions are mostly the conjunctions and adverbial phrases, and they function as a tool to help the reader interpret the relations between parts of an argument. Hyland (2005) further creates three micro categories of *transitions* which are ‘addition’ (and, furthermore, moreover, by the way etc.), ‘comparison’ (similarly, likewise, equally, in the same way, correspondingly, in contrast, however, but, on the contrary, on the other hand etc.) and ‘consequence’ (thus, therefore, consequently, in conclusion, anyway, admittedly, nevertheless, in any case, of course etc.).

As stated before, Hyland (2005) accepts any item that performs internal function as metadiscourse. Hence, the emphasis should be on the internal-external function of an item rather than coordination-subordination when it comes to evaluating its metadiscoursal value. In the same vein, Martin and Rose (2003) define external conjunctions as functioning to relate activities and internal conjunctions as functioning text organizers (Table 2.4.)

Table 2. 4. Roles of External and Internal Transitions (Martin and Rose, 2003, p.127)

Relation	External	Internal	Examples
Addition	adding activities	adding arguments	and, furthermore, by the way
Comparison	comparing and contrasting events	comparing and contrasting arguments	similarly, in contrast, however
Consequence	explaining why and how things happen	drawing conclusions or countering arguments	thus, therefore; anyway, of course

Frame markers function as indicators of boundaries within text. Thus, they can be used to ‘sequence’ parts of the text (first, then, next, secondly, finally etc.), ‘label text stages’ (to summarize, in sum, by way of introduction etc.), ‘announce goals’ (I propose, my purpose is, the paper proposes, there are several reasons why etc.) and ‘topic shifts’ (well, OK, now, let us turn to etc.). According to Hyland (2005) it essential for frame markers to order arguments rather than the events to have internal function and therefore to be counted as metadiscourse.

Endophoric markers are used to refer to other parts of the text (see Figure 2, refer to the next section, as noted above etc.) (Hyland, 2005, p. 51).

Evidentials are tools that help the writer to indicate that the forthcoming information is from another resource and therefore inform the reader about the main resource of the information (according to X, X states that etc.) (Hyland, 2005, p. 51).

Code glosses help the reader to grasp the intended meaning that the writer tries to achieve by rewriting, explaining and exemplifying (this is called, in other words, such as, for example, etc.) (Hyland, 2005, p. 52).

Interactional resources engage the readers with the text by managing the writers' presence within the text and drawing the readers' attention to the way the writer presents on his/her proposition. There are five sub-categories of interactional resources (Hyland, 2005, p. 52).

Hedges are the tools that writers use to signal their subjectivity about their proposition. They contain words such as '*possible*', '*might*', '*perhaps*' (Hyland, 2005, p.52).

Boosters on the other hand help the writers indicate their certainty about their proposition. They include words such as '*clearly*', '*obviously*', '*demonstrate*' (Hyland, 2005, p.52). Hyland (1998) states that academic writing requires the writers to use both hedges and boosters in a balanced way.

Attitude markers are tools used by the writers to convey their emotions towards their proposition. They comprise words such as '*unfortunately*', '*hopefully*', '*logically*', '*agree*' etc. (Hyland, 2005, p. 53.)

Self mention is the degree in which the writer makes him/her presence explicit. Therefore, first person pronouns and possessive adjectives such as '*I*', '*my*', '*we*', '*our*' etc. in a text is counted as self mention (Hyland, 2005, p.53).

Engagement markers are the tools such as, ‘*as you see*’, ‘*you may notice*’ etc. with which the writes include their readers in their proposition (Hyland, 2005, p.53).

With Hyland’s interpersonal model of metadiscourse (2005), writes can seek for support and cooperation as well as bypassing disagreements since interactive devices enable them to prepare their texts for their audience to find it coherent and convincing and interactional devices allows them to engage their readers within the text. Overall, when Hyland’s (2005) definition of metadiscourse, improvement of the earlier categorizations of metadiscourse and his list of metadiscourse devices qualify Hyland’s (2005) interpersonal model of metadiscourse as the most thorough taxonomy put forth so far and it is the reason why the present study adopted Hyland’s (2005) taxonomy.

2.3. Data Driven Learning

In this section, the theoretical background of data driven learning presented under six sub-sections in order to present a general overview, compare it with previous language learning theories, show its implications in the language classrooms and argue its advantages and disadvantages.

2.3.1. Overview of Data Driven Learning

In the field of linguistics, corpus refers to a collection of any body of texts which contain a large amount of natural (written or spoken) data as they occur in the real world, which in turn provides the researchers with the opportunity to examine the actual language in use (McEnery and Wilson, 2001). Corpus linguistics is then the study of corpus, which presents authentic data (McEnery & Wilson, 1996). Since 1950s the field of corpus linguistics began to develop; however, the bloom of corpus linguistics studies occurred in 1980s thanks to the advancements of technology which made computerization of large corpora possible and enabled researchers to study corpora in a more systematic way (McEnery & Wilson, 1996).

However, according to McEnery and Wilson (1997) and Leech (1997), the application of corpus research to the field of applied linguistics was quite slow. Still, such development took place owing to the influence of the communicative approach in the use of authentic texts instead of invented examples (Chambers, 2010). Moreover, studies such as McCarthy (1998) demonstrated that such invented examples actually varied a lot from the language in use, especially for the spoken language. That is why, the production of corpus-based materials, dictionaries and coursebooks have started to emerge. For example, in 1987, John Sinclair started the COBUILD project that aimed at producing corpus-informed dictionaries and language teaching materials that would make use of authentic language in use. As a result of COBUILD project (Sinclair, 1987) as well as other similar ones, several ‘concordance tools’, which enable researchers to conduct simple linear searches of corpus, have begun to be developed, such as ‘*Microconcord*’ (Johns, 1986) and ‘*Wordsmith Tools*’ (Scott, 1999). Consequently, with the advancements in concordance software and constructing substantial number of English corpora, scholars have started to focus on the ways to apply authentic data directly in language classrooms (Johns, 2002).

McKay (1980), McEnery and Wilson (1997) and Tim Johns (1986, 1988a, 1990, 1991a), are the pioneers of data driven learning (DDL) by taking the idea of corpus-based materials even further by allowing learners to have first-hand experience with corpora on their own. Tim Johns (1991a) defines DDL as “the attempt to cutout the middleman as far as possible to give the learner direct access to data (p.30). Johns (1991a) further explains that the term ‘middleman’ in his definition refers to the teacher. According to him (1991a), DDL involves exposing language learners to a large amount of authentic data on their own through concordance programs because he believes that “the language-learner is also, essentially, a research worker whose learning needs to be driven by access to linguistic data” (Johns, 1991a, p.2). Johns (1991a) also highlights that the computer the students work with do not function as substitutes for the teachers, rather they are seen a resource since they remain silent unless a question comes from a student. Hence, one can observe that in the heart of DDL lies the process of inductive learning.

2.3.2. DDL and Language Learning Theories

According to Flowerdew (2015) there are three ways in which DDL differs from traditional language learning. Firstly, since through the use of a concordancer a learner is able to observe what comes before and/or after the searched word, DDL promotes lexico-grammatical approach rather than separation of grammar and lexis. Secondly, regardless of their language proficiency, the authentic language the learners are exposed to is not simplified in DDL unlike in traditional methods. With this aspect of unattested language use, DDL drifts apart Krashen's (1988) "comprehensible input theory" due to the absence of simplified talk which Krashen (1988) believes to be useful for language learners. Finally, while DDL materials are associated with discovery-based learning approach, traditional ones focus more on rule-based learning.

When it comes to the relation of relatively new DDL approach with the earlier theories on second language acquisition, Flowerdew (2015) suggests that it builds on the "noticing hypothesis" (Schmidt, 1990), "constructivist learning" (Collentine, 2000) and "Vygotskian sociocultural theories" (Vygotsky, 1986). To start with the noticing hypothesis, Schmidt (1990) proposes that noticing is a prerequisite for language learning and therefore, learners need to notice in order to convert the input they received into "intake". Similarly, through DDL approach, language learners first come up with a query and try to find the answer through concordancers which provide them with many examples of the searched item which in return would help the researchers to notice (Chambers, 2010). Secondly, according to (Collentine, 2000) constructivist learning views language learning a "dynamic process" with the full authority of the language learners. In this approach learners discover the language through inductive learning and hypothesize and make inferences on an issue. In the same vein, as discussed before, learners' personal contact with the language data and discovering the rules on their own through concordance lines are two essential components of DDL, as well. Finally, Vygotsky (1986), puts forward the idea that learning takes place through "linguaging", which is learners' process in meaning making. Therefore, through the support from the teacher or their peers, learners negotiate meaning, which is called "scaffolding". However, the last

decision to accept or reject the feedback and support provided is up to the learners themselves. Although the relationship between DDL and Vygotsky's (1986) sociocultural theory might be subtle at first, it becomes clearer when one realizes the fact that learners have the option to choose to negotiate meaning, that is to validate the hypothesis they came up with, with the corpus data rather than with their peers or teachers (Flowerdew, 2015).

2.3.3. Different Approaches of DDL

From the outset of data driven learning, scholars have adopted different understandings and approaches towards it. Even Johns (1990) himself admitted that DDL does not only require learners' actual encounter with the language data itself but also a variety of concordance-based activities. In the same manner, Smart (2014) presents two characteristics of DDL the first of which is to be based on authentic data as a source from which language learning materials are produced and the second of which involving active discovery of language use of the learners. Furthermore, Crosthwaite (2019) defines DDL as a pedagogical language learning approach emphasizing active and direct learner engagement with the corpus data either through hands-on concordancer use or through teacher prepared materials. All in all, it is observed that so far, the approaches to DDL have gathered around two aspects. In other words, whereas some researchers believed DDL involved learners to sit at the computer and investigate the corpus through concordancers on their own, others suggested that providing learners with in-advance teacher-initiated concordance printouts is also in the boundaries of DDL (Bernardini, 2004; Boulton, 2017; Gilquin & Granger, 2010; Yoon & Jo, 2014).

These two approaches of DDL have also been named in various ways: 'direct versus indirect consultation of corpora' (Chambers, 2007; Römer 2006), 'hands-on and hands-off corpus use' (Boulton, 2012), 'the hard versus soft versions of DDL' (Mizumoto & Chujo, 2016), and 'learner-corpus interaction versus teacher-corpus interaction' (Römer, 2008). Although most of the labels suggested are self-explanatory, it is quite essential here to indicate the difference between Chambers' (2007) and Römer's (2006) point of view in using direct versus indirect consultation

of corpora. Chambers (2007) refers to learners' first-hand consultation to the corpus by direct approach and learners' experiences in teacher-prepared corpus-informed concordance lines by indirect approach. On the other hand, Römer (2006) refers to the use of corpus and concordances in the classroom with direct approach and implication of corpus research findings in classroom with indirect approach. The present research adopts Chamber's (2007) direct and indirect consultation of corpora since it concisely encapsulates the main differences between the two terms.

Finally, it is also worth to argue strengths and weaknesses of direct and indirect approaches to DDL. To begin with, via the direct approach to DDL learners can access to almost unlimited access to authentic language data. Hence, the direct approach promotes learner autonomy and encourages discovery-based learning (Boulton & Cobb, 2017; Chambers, 2007). Nevertheless, its application can be a burden both for the teacher – since it requires them to be familiar with corpus analysis tools – and the learners – since learning how to use such tools can be quite tedious, time-consuming and confusing. Conversely, with the adoption of the indirect use of corpora, learners can be exposed to a limited part of the whole corpus (Yoon & Jo, 2014). Nonetheless, with the corpus-based concordance handouts, it can be way more reassuring than the direct approach for learners (Daskalovska, 2015) as well as making the exhaustive corpus data more user-friendly for immediate gains (Boulton & Tyne, 2013).

When the advantages of direct and indirect approaches to DDL, the background of the participants of the current study and the environment the research took place (distance education due to Covid-19 pandemic) are all taken into consideration, the researcher decided to adopt indirect approach when instructing MDMs.

2.3.4. The Affordances of DDL

Gilquin and Granger (2010) put forward that DDL has four main amenities. Firstly, they propose that DDL enables learners not only with authentic data but also an ample number of occurrences of the linguistic item in search. Also, Flowerdew (2012a) suggests that corpora use in classroom have a great potential since it

provides learners with easily accessible collections of authentic language use. Secondly, according to Gilquin and Granger (2010), DDL can be used as a tool for language learners to correct their own mistakes. Moreover, Nesselhauf (2004) suggests that DDL can be handy in eliminating fossilized errors. Thirdly, they believe that the discovery-based quality of DDL enables language learners to gain self-esteem and encourage them to take action in their language learning. Furthermore, Aston (1988) also suggest that thanks to DDL, language learners can take their learning outside the classroom with the autonomy obtained. Fourthly, Gilquin and Granger (2010) reckon that through DDL, learners actually develop essential learning skills which are not only useful in language exploration but also in other fields. In the same vein, O’Sullivan (2007, p. 277) lists 16 of such skills as: “predicting, observing, noticing, thinking, reasoning, analyzing, interpreting, reflecting, exploring, making inferences (inductively or deductively), focusing, guessing, comparing, differentiating, theorizing, hypothesizing, and verifying”. In addition, Hyland (2002) links DDL with the current language-learning pedagogy which puts forward providing language learners with the opportunity to take initiatives for their own learning.

When it comes to results of empirical studies that focus on the benefits of DDL, according to Chambers (2010) the findings of several studies yield mostly positive results. A relatively scarce number of quantitative studies of Stevens (1991), (Cobb) 1997, Gaskell and Cobb (2004) and Yoon and Hirvela (2004) bring about the fact that language learners gain from DDL in learning vocabulary, grammar and improving their writing skills. Besides, a relatively greater number of qualitative studies tend to validate these finding by introducing the themes that learners have a say about their own learning, they take interest in working with authentic examples and they favored the discovery-based nature of DDL (Cheng, Warren & Xun-Feng, 2003; Yoon and Hirvela, 2004; Chambers, 2005).

2.3.5. Limitations of DDL

According to Gilquin and Granger (2010), DDL has four primary limitations which are related to the application of DDL, teachers’ and students’ interpretations and the

content of DDL. To start with, the organization of DDL, especially when hands-on student search is required, involves the need for computers – one for each student – and several software for corpus analysis tools to be built in computers, most of which are commercial. Therefore, sometimes the cost of adopting DDL can be quite expensive, and some language schools or institutions may not be able to afford them (Hadley, 2002). Even if the indirect approach DDL is adopted, there might be the problem of time since preparing unique materials can be time-consuming for language teachers (Hunston, 2002). When it comes to teachers' and students' points of views, sometimes due to their lack of awareness of using corpora, teachers could be reluctant to apply DDL in their classrooms (Mukherjee, 2006). Similarly, students might be overwhelmed while working with big amounts of data. Whistle (1999), for example reports some cases in which language learners fail to come up with rules and O'Sullivan and Chambers (2006) highlight that owing to the complex nature of corpus analysis, some students may even draw incorrect conclusions. Therefore, DDL might be suitable for particular types of learners based on their learning styles (Gilquin and Granger, 2010) and ICT literacy (Mparutsa, Love & Morison, 1991), Besides, Boulton (2012) finds out that most of the studies in DDL literature actually has been conducted with advanced learners. Another criterion suggested by Lee and Swales (2006) to be considered when adopting DDL in classroom is the learners' local culture.

When all the benefits and limitations of DDL were taken into consideration, the participants of the current study were selected according to their English proficiency levels. Thus, all the participants were proficient users of English whose English proficiency was proved either by internationally known proficiency exams (TOEFL or IELTS) or by their universities' own English proficiency exam (EPE). Moreover, their ICT literacy was enough to cope with the indirect DDL materials the researcher prepared and making inferences and discoveries through class material was nothing new to their language learning culture.

2.3.6. DDL and Teaching Writing

Flowerdew (2010) states that corpora can be used either directly or indirectly at any stage of the writing process such as initial drafting, editing or proof reading. While indirect approach could allow learners to be familiarize themselves with the corpus research (Boulton, 2010) and enables teachers to filter the vast amount of concordance lines for the benefits of their students (Flowerdew, 2010), direct approach may help language learners be equipped with the essential resources to foster their writing skills (Starfield, 2014) and show them another perspective in which they do not need native speakers to consult to when they are confused (Swales, 2006).

As Flowerdew (2010) puts, use of corpora in writing instruction is indeed promising. This is primarily because learners tend to evaluate it in a positive way (Yoon and Hirvela 2004; Curado Fuentes 2002; Yoon 2008). On the other hand, its effect on learners' actual writing performance is still not certain since there are comparatively a smaller number of DDL studies that focus on writing performance. Below a variety of studies that focused on the use of DDL pedagogy in different aspects of teaching writing are presented.

Biber, Johansson, Leech, Conrad & Finnegan (1999) highlights the significance of 'lexical bundles', which are a group of words that go together, in academic writing and similarly according to Flowerdew (2010), the primary function of using corpora is to teach such lexical bundles (collocations, colligations, semantic features and prosodies) because such occurrences are not quite accessible to learners in grammar books or dictionaries. Jones and Haywood (2004) for instance, conducted an empirical study with 21 students (10 in the treatment group and 11 in the control group) who were mostly graduate level students who needed English language support. The study aimed at finding out whether using DDL pedagogy would increase their level of awareness of the formulaic sequences in academic English and affect their production of these expressions. Their results indicated that DDL helped the participants to raise awareness on the formulaic expressions. However, when it comes to the production, only some students showed progress.

Besides teaching ‘lexical bundles’ in academic writing, Hyland (2006) proposes that the use of corpora is a promising approach in teaching genre-writing. Moreover, Hyland (2003) notes that the aim of such corpus-informed genre-writing instruction is twofold: (1) to raise language learners’ awareness and (2) to make the relation between the rhetoric of the text and the purposeful selection of lexico-grammatical items clear. For example, Chen and Flowerdew (2018) conducted a study with 473 post-graduate research students in order to introduce DDL approach to them in research writing genre. Accordingly, the participants were first introduced to BNCWeb Corpus and then to teacher-built discipline-specific corpus to raise awareness in the lexico-grammatical and discoursal features of the texts. Finally, they were asked to build their own corpora for their own needs. The participants demonstrated highly positive attitudes towards using DDL. Furthermore, Charles (2007) proposes in her paper which focused on rhetoric teaching via DDL approach with 40 international graduate students that corpus-based tasks together with discourse tasks provide learners with a vast amount of input to be analyzed and discover the relation between specific word choices and the rhetorical purposes.

In addition to the first two functions listed above, in the literature instances of corpora consultation for error-correction and for reference also exist. For example, Chitez and Bercuci (2019) conducted a study with 29 freshmen and sophomore year ESP students at the geography department a university in Romania. Their aim was to analyze the effect of several DDL approaches (using learner corpora, native corpora and expert corpora) on the participants’ academic writing skills. The results of the study reveal that errors that stem from L1-L2 transfer and the inconsistency in register can be overcome by the use of expert corpora. Also, the participant tended to use more variety of items in ESP phraseology. Finally, according to the questionnaire results, the students also reported positive attitudes towards DDL usage. Similarly, O’Sullivan and Chambers (2006) conducted their study with 14 undergraduate, native speakers of English who learn French and wish to improve their writing in French. Since the aim of the study was to explore the types of changes made by the participants as a result of corpus consultation, to find out the effectiveness of their task completion and observe their attitudes. The results of the

study yield that DDL is a promising pedagogy that can enable language learners with the empowerment of their own writing process. Another study that focused on DDL and error-correction is Watson Todd (2001). 25 postgraduate science and engineering students who were enrolled in English support courses took part in this study. For the study, the participants needed to write their first draft of a report and then through DDL methodology, they were asked to self-correct their errors by consulting a reference corpus. The study found that the learners were able to acquire patterns and use them to correct their own errors.

All in all, although there are studies that aim at finding out the participants thoughts and attitudes of DDL pedagogy in writing instruction, there seems to be a gap in the literature for empirical research that focus on the effectiveness of corpora use in writing performance and this present study will try to fill in this gap in the literature by exploring the effect of DDL in learners use of interactive metadiscourse markers.

CHAPTER 3

REVIEW OF THE LITERATURE

Metadiscourse marker use is determined by several factors, such as learners' cultural background, strategies in language learning and register and genre awareness (Adel, 2006). Yet, when it comes to writing instruction, grammatical appropriacy still comes before communicative components of writing (Amiryousefi & Rasekh, 2010) although there seems to be a general agreement in the literature that communicative function of writing should be highlighted in writing classes (Olshtain, 2001). Çubukçu (2017) states that the role of metadiscourse marker use is vital when it comes to one's overall writing achievement. Accordingly, the present study investigates the immediate and long-term effect of DDL on the use of interactive metadiscourse markers in the argumentative paragraphs of freshmen pre-service English language teachers. Hence, studies which had similar scopes of research in the literature, namely metadiscourse marker instruction and the use DDL methodology in metadiscourse marker instruction will be presented in this chapter.

3.1. Metadiscourse Marker Instruction

In metadiscourse marker instruction, studies usually revealed that putting specific emphasis on them indeed makes a difference in not only second/foreign language learners' (e.g., Dastjerdi and Shirzad, 2010; Kaya 2019; Yaghoubi and Ardestani, 2014) but also native speakers' awareness and use of metadiscourse markers (Steffensen and Cheng, 1996).

Steffensen and Cheng (1996), aimed at discovering the effect of metadiscourse marker instruction on writing skills of their 100-level composition students who were native speakers of English. In their experimental study, Cheng taught two classes: experimental and control class. In the control class the teaching followed

the process method, and the students were asked to read materials on the subjects on which they were required to write about. In the experimental class, the students read less about the content of the course since they were primarily asked to read scholarly articles on metadiscourse (e.g., Williams, 1981; Vande Kopple, 1985; Halliday and Hassan, 1976; Lautamatti, 1978). The data were collected through pre- and post- tests written at the beginning and at the end of the semester and the third and fourth revision of the first assignment. A rater evaluated the data through Crismore et. al.'s (1993) taxonomy of metadiscourse. The researchers found out that in the end, experimental group's posttests were better than the control groups' posttests which suggested that metadiscourse marker instruction through scholarly articles and class discussions has a positive effect on students' overall writing performance.

Dastjerdi and Shirzad (2010), researched the impact of explicit metadiscourse marker instruction on the writings of elementary(N=32), intermediate (N=32) and advanced (N=32) level English Literature students. All the students received the same 6-week metadiscourse marker instruction with list of definitions and instruction based on Vande Kopple's (1985) taxonomy and they were asked to complete exercises such as sentence writing, cloze test and synonym matches. The data were collected through pre-posttest writings and were analyzed through quantitative methods. The results indicated that the explicit instruction of metadiscourse marker use had a positive impact on learners' use of MDMs for all levels. Moreover, intermediate level students were the ones who improved the most among the three.

Ergin (2013), in her M.A. thesis examined the effect of teaching formulaic multi-word discourse markers on 31 upper-intermediate level EFL learners at a public university in Turkey. The participants were put into two classes, and they received the same instruction. However, their instructors were different. The instruction took four weeks, and all the materials were prepared by the researcher herself. Firstly, in order to determine which expressions to teach, she utilized COCA (Contemporary Corpus of American English) to discover the frequencies of the formulaic expressions and she included the most frequent ones only. Then, each week starting

with through consciousness raising activities first the instructors taught those markers with the example sentences the researcher found on the IELTS training websites. Moreover, each week the students were asked to do some exercises such as sentence completion, cloze test, paragraph ordering, and writing. Before and after the treatment the students wrote argumentative paragraphs. Therefore, pre- post-test design was adopted to collect the data and the data analyzed quantitatively. The results of the study indicated that the EFL learners used a greater number of metadiscourse markers in their post-tests. Also, the variety of these markers were more in their post-tests. Finally, students scored significantly higher after the instruction which shows that the explicit instruction had a positive effect.

Taghizadeh and Tajabadi (2013), tried to discover whether interactive metadiscourse marker instruction lead language learners to use those markers more appropriately in their writings. 30 intermediate level learners took part in this study and through one semester they received interactive metadiscourse marker instruction based on Hyland and Tse's (2014) model of discourse and feedback for the three essays they wrote in three stages (draft, revise and edit). Data were collected both qualitatively (interview) and quantitatively (process-writings). The findings of the study showed that there tended to be an improvement in term of appropriate use of interactive metadiscourse markers. Also, the participants reported that their confidence in writing and awareness on the interactive metadiscourse markers were developed thanks to the instruction they received.

Yaghoubi and Ardestani (2014), investigated the effect of implicit and explicit instruction of metadiscourse markers on their participants' (N= 90) overall writing skill improvement. Their participants were advanced learners of English who were science and technology students at an institution. In their experimental study, the participants were divided into three groups (control, implicit and explicit) evenly. In 8-week instruction, Group A received explicit metadiscourse marker instruction via a handout which was prepared based on Hyland's (2005) taxonomy, and researchers' definitions and explanations of them. Then, they were required to write sentences with those markers. Finally, they were asked to complete two cloze tests. Group B received implicit instruction through reading texts in which all the

metadiscourse markers were bold and highlighted. As an exercise, the learners were asked both to underline the metadiscourse markers in reading texts and to fill in the gaps in different reading passages. This group was also required to complete cloze tests as assignments. They evaluated their data through quantitative data collection (pre-test/post-test design – 300-word composition) and quantitative data analysis methods. In their study, the researchers disregarded the grammar and vocabulary components and focused mainly on metadiscourse marker use. Thus, they graded each metadiscourse as 2 points. Then, they employed a one-way ANOVA test to statistically compare the pre- and post-tests. Moreover, they also conducted independent samples T-Tests to compare the effects of two instruction methods. The results of the study revealed that both explicit and implicit instruction of metadiscourse markers had significant positive effects on participants' writing scores. However, neither of these methods were more advantageous than another for learners.

Escobar and Fernandez (2017) conducted their study to find out to what extent students adapt discursial and authorial stance upon being taught lexical bundles, boosters/hedges and stance taking strategies. To this end, they recruited 23 Puerto-Rican sophomore year TESOL and EFL major students who were taking second year composition class in which they learnt comparison/contrast, cause/effect and argumentative essay types. The course took 5 months and within these 5 months they received three workshops on lexical bundles, boosters/hedges and stance taking strategies. The first was taught via published papers to show how they were used. The second one was instructed through paraphrasing activities in which the learners were asked to use boosters and hedges to change the neutral sentences. Finally, sample essays were utilized to teach the third one. The participants also received feedback for the essays they written throughout the process. Data were collected via both quantitative (post-test argumentative essay) and qualitative (survey) means. The study found that the participants accepted that employment of these tools would increase their writing skills. However, when it comes to using them, the participants hesitated to include them in their essays.

Kaya (2019), in her Ph.D. dissertation examined the effect of explicit metadiscourse marker (transitions, frame markers, evidentials, code glosses, attitude markers and boosters) instruction on freshmen pre-service English language teachers' writing achievement. Accordingly, she worked with 21 participants and within 12-week writing course in which compare-contrast, cause-effect and argumentative essays were taught she explicitly instructed to the participants related metadiscourse markers which were determined upon frequency analyses via BNC (British National Corpus) through the materials which the researcher found online from other institutions' resources. Moreover, upon instruction, the participants were also asked to complete a series of exercises, such as cloze tests, sentence completion, matching etc. The participants were also asked to write a certain number of writings and they received personalized feedback on their writings. Furthermore, the common mistakes of the participants as well as example paragraphs were shared with everyone so that they learn from each other' mistakes and get familiarized with the use metadiscourse markers. The study adopted mixed methods approach, and the quantitative data were collected via two types of pre- and post- tests: metadiscourse marker knowledge test and writing an argumentative essay. Qualitative data were collected through participants' reflections and semi-structured interviews. While quantitative data were analyzed through both parametric and non-parametric methods, qualitative data were analyzed by content analysis. Overall, it was found out that students significantly scored higher in their knowledge test which means that they were able to recognize metadiscourse markers. What is more, they also improved their use of metadiscourse markers and developed their writing skills. Besides, the learners were happy about the type of instruction they received.

Fatahipour, Tahmasbi and Salehi (2020), conducted their study in order to find out the effect of explicit metadiscourse marker teaching on intermediate level EFL learners' narrative and descriptive writings. Accordingly, they divided their 82 participants into two groups (control and experimental) evenly. The experimental group received 30-minute explicit instruction of metadiscourse at the beginning of each session for 6 weeks apart from instruction on narrative and descriptive writing whereas the control group received instruction on the latter. Data were collected through pre-test/post-test design and were analyzed both qualitatively and

quantitatively. Their results demonstrated that explicit instruction had a significant positive effect on the use of metadiscourse markers of Iranian intermediate level EFL learners.

3.2. DDL and Metadiscourse Marker Instruction

When the literature on data driven learning and writing instruction is investigated, it was found out that quite a few of them primarily focused on metadiscourse marker instruction (e.g., Creswell, 2007; Vasheghani Farahani and Pahlevansadegh, 2019; Sun and Hu, 2020) although numerous papers addressed the effect of DDL on foreign/second language learners' academic writing skills (e.g., Geluso and Yamaguchi, 2014; Chen and Flowerdew, 2018; Chitez and Bercuci, 2019; Emir, 2019) and learners' perceptions and attitudes towards DDL pedagogy (e.g., Conroy, 2010; Charles, 2012; Quinn, 2014; Poole, 2016). Overall, it can be drawn from the results of the existing research on DDL and academic writing that it proved to be effective in correction of linguistic errors, improving genre-specific language use in writing, encouraging learner discovery, augmenting noticing of specific features and building awareness of language use (Luo and Zhou, 2017).

Creswell (2007), in his study worked with junior undergraduate students majoring in translation and interpreting who were enrolled in English language and linguistics course. The course aimed at improving learners use of connectors via process-based referenced essays. His research focused on finding out the effect of DDL on the correct use of logical connectors via experimental and control groups. The learners in the experiment group were expected to work in small groups and discover the meanings, uses and syntactic patters of connectors through a sub-set of connectors using DDL, then discuss their finding within their small groups and later among other groups. The control group did the same, except from the fact that they had never been asked to consult to corpora. Through informal interviews, frequency analyses and researchers' judgements on acceptability of the connectors the data were analyzed. The results revealed that the effect of DDL was medium.

Farahani and Pahlevansadegh (2019) investigated the effect of indirect DDL approach on the use of both interactive and interactional metadiscourse markers in their participants' writings adopting Hyland's (2005) model of metadiscourse. Their participants included 40 upper-intermediate level EFL students who were receiving training for specifically for IELTS. Since the research implemented quasi-experimental research, they had experimental and control group. The control group continued to get training traditionally without being instructed on metadiscourse markers. On the other hand, the experimental group received special metadiscourse marker instruction in 10 weeks. In order to prepare corpus-informed authentic materials, the researchers build their own learner corpus by using 200 IELTS writing samples which were available on the Internet. The corpus consisted of around 30.000 words. Accordingly, by using concordance lines, the researchers taught metadiscourse markers to the participants in the experimental group. Moreover, after the instruction, they were asked to produce sentences and write paragraphs for which they received corrective feedback. The data were collected through pre- post- test design and they were analyzed through statistical tests. Their results revealed that corpus-informed metadiscourse marker instruction improved the use of metadiscourse markers of the participants in their writings significantly.

Sun and Hu (2020), sought answer to the question whether DDL is beneficial in the use of hedges, compared the impact of direct and indirect approaches of DDL on the use of hedges and explored their participants attitudes toward the implementation of DDL. To this end, they worked with 24 Chinese upper-intermediate level junior students majoring in English. The participants were randomly divided into two experimental groups. Within three weeks, the first group conducted hands-on corpus analyses whereas the second group received corpus-informed materials. In this research two corpora (MICUSP and ICNALE) were used. Firstly, both groups were asked to analyze the concordance lines and then they discovered their syntactic usages. When it comes to practice, the first group calculated frequencies in both corpora and compared them; the second group completed a set of corpus-informed gap filling tasks. They utilized pre- post and delayed post-test design and made use of a questionnaire and analyzed their data through within and between groups statistical analyses. Their results suggest that

indirect approach turned out to be more successful than the direct approach. Also, participants tended to be in favor of the DDL approach.

When these studies are analyzed, it can be seen that most of the studies that focused on the effect of MDM instruction adopted quantitative data collection and analysis tools. Therefore, there is a need for research that adopted mixed methods approach in the literature to gain further insight about the learners' use and/or avoidance of MDM. Moreover, to the best of the researchers knowledge, none of the studies utilized a longitudinal approach in which both immediate and delayed effects of MDM instruction could be observed. Hence, the present study could serve to fill in these gaps in the literature.

CHAPTER 4

METHODOLOGY

This chapter presents the setting, participants, instruments developed for the research with their features of usefulness, data collection procedure and data analysis methods utilized in the study.

4.1. Setting

The present study was conducted with freshmen pre-service English language teachers at Middle East Technical University (METU) in Ankara, Turkey. METU and SUNY-TEFL program, in which the participant students were enrolled, were presented and described in detail to depict a clear picture of the context where the study took place.

METU is an English medium university. Therefore, in all the faculties and institutes all the lessons are taught in English and all the students are required to certify their English language proficiency. (METU, registrar's office website: <https://oidb.metu.edu.tr/en/general-information>). Thus, all the registered students are obliged to take the English Proficiency Exam (EPE), which is designed and prepared by the testing unit of the school of foreign languages department, unless they prove their English proficiency with international proficiency exams: (1) TOEFL IBT (min. 79 points¹), (2) IELTS Academic (min. 6.5 points¹) or (3) PTE Academic exams (min. 62 points¹) before starting their studies at their departments. Upon taking the EPE exam, only the students who score at least 65 in EPE or prove their English proficiency level by aforementioned international English proficiency exams are

¹ The minimum scores for these international tests are for students who are enrolled in SUNY-FLE program.

considered eligible for starting their undergraduate studies at foreign language education department as SUNY-FLE students (Equivalence Table for English Language Exams Recognized by METU for Undergraduate and Graduate Students: (<https://oidb.metu.edu.tr/en/equivalence-table-english-language-exams-recognized-metu-undergraduate-and-graduate-students>)). Otherwise, they are required to attend the preparatory school at least for a semester or until they gain at least the minimum scores prior to their undergraduate education. Students who fail to do so within two years after their registration to the university are dismissed from the university.

The students who participated in this study, either proved their English proficiency by TOEFL IBT or IELTS Academic exams or took the online EPE exam due to Covid-19 Pandemic. For that reason, it is necessary to provide information about the Online EPE exam. Online EPE exam takes 100 minutes and consists of 3 parts. They include reading, (60 points) vocabulary, (10 points) and writing (a text), (30 points). Students do not have to gain minimum scores for each part. In other words, gaining 65 points overall is enough to pass the EPE exam. In order to ensure the exam security, all the test takers use a software to disable their usage of online resources during the exam. They are also required to join a video conference program and turn their voice and videos on while taking the exam (METU-SFL English Proficiency Examination A Guide for Test-takers booklet: <https://epe.metu.edu.tr/EpeKitapcigi.pdf>).

Since all the participants were enrolled in SUNY-TEFL at METU, it is essential to give necessary information about it. SUNY-TEFL program is a collaboration of METU, Department of Foreign Language Education and State University of New York (SUNY)–New Paltz. The SUNY-TEFL program:

[it] provides students with a solid foundation in the field of English language teaching and helps them to develop strategies, firmly grounded in research, theory and practice, to teach English in any part of the world, or to do research on the teaching, learning or assessment of English as a foreign language. This formulation is enriched by 'Liberal Studies' perspective that students will gain throughout their education. The four-year program includes full-time enrolment for 6 semesters at METU and 2 semesters and 2 summer sessions at SUNY-New Paltz: first, second and fourth years at METU, and the third year and two summer sessions at SUNY, New Paltz. Compulsory courses in the program provide students with the fundamentals of English language teaching profession while a wide spectrum of elective courses in psychology, sociology, philosophy, linguistics and literature

equip them with new perspectives and new horizons. Upon successful completion of all the requirements at both institutions, students of this dual diploma program are awarded Bachelor of Arts degree in English Language Teaching at METU and Bachelor of Arts degree in Liberal Studies at SUNY-New Paltz. ... (METU, SUNY-TEFL website: <https://fle.metu.edu.tr/en/suny-tefl-undergraduate-program>)

In order for students to begin the dual diploma program at SUNY, New Paltz, they are obliged to gain 550 on the SUNNY institutional TOEFL, 79 on TOEFL IBT or 6,5 on IELTS. Moreover, they must have minimum 2.0 GPA at METU, have failed no more than 3 courses and have taken a minimum of four second year courses at METU. Should students fail to meet this requirement, they need to take English language courses at the Haggerty English Language Program (HELP) at New Paltz to improve their English skills. To successfully finish the program, the students are required to spend two summers and a year in SUNY, New Paltz, as well as having 2.0 GPA there and have no more than two failed courses. Finally, they must meet all the requirements and courses from both universities (Rules and Regulations METU TESOL Dual Diploma Students: https://fle.metu.edu.tr/en/system/files/rules_and_regulations_for_metu_tesol_program.pdf).

Freshmen students of SUNY-TEFL take seven 3-credit courses and one 2-credit course which include introduction-level courses such as introduction to education, English language courses such as Expository Writing 1 and Turkish courses (SUNY-TEFL Undergraduate Curriculum: <https://fle.metu.edu.tr/en/suny-tefl-undergraduate-program>).

4.2. Participants

14 freshmen pre-service English language teachers at METU-SUNY program who were enrolled in Expository Writing 1 course volunteered to take part in this research and took the pre-test. Then, 9 of the participants showed up for the first intervention session. For the second intervention session 9 participants, 2 of whom were different participants from the previous 9 participants, showed up. Starting from the third intervention session the same 7 participants who had been present for the pre-test and previous two intervention sessions joined the intervention and they completed everything that was required from them for the sake of research.

According to Mackey and Gass (2005), in longitudinal studies, if a participant misses one treatment session, that participant should be removed, and their data should be eliminated. Hence, I removed all the participants who missed even one of the intervention sessions. Therefore, in the end, 7 freshmen pre-service English language teachers at METU-SUNY program took part in this research. Two of them were male and five of them were female. Since the present study did not focus on different gender's use of metadiscourse markers, the uneven gender distribution of the participants was not considered as a confounding variable. Their age ranged between 18-22 (Table 4.1).

Table 4. 1. Demographic Information about the Participants

Participant #	Gender	Age
1	Female	18
2	Male	22
3	Female	18
4	Female	20
5	Male	18
6	Female	18
7	Female	18
Mean		18,85

Since the present research targeted for a specific group of participants, purposive sampling method (Mackey and Gass, 2005) was employed to select participants (1) whose native language was Turkish, (2) who were freshmen pre-service English language teachers and (3) who had not taken lessons on metadiscourse markers before.

Because language background of the learners is a highly significant factor when it comes to the way one uses their foreign language(s) (Mackey and Gass, 2005; Scheffler, Horverak, Krzebietke, and Askland, 2017), the language background of the participants was asked via background questionnaire prior to the research. All the participants stated that they were monolingual Turkish speakers and they learned English as a foreign language in Turkey. The duration of English language study of the participants varied since they had different educational experiences (i.e., state schools, private schools). All the participants were born and have resided in big cities in Turkey.

When it comes to their English proficiency, the participants mentioned varied experiences in the background questionnaire. Firstly, three participants studied in preparatory school before starting their undergraduate studies, whereas the other four of them directly started their undergraduate studies without studying at the preparatory school since they were able to prove their English language proficiency via EPE or other international English proficiency exams such as IELTS Academic. Therefore, 6 of the participants proved their English language proficiency by taking EPE (mean score: 75,6 out of 100) and one other participant did so by taking IELTS Academic (score: 8.0 out of 9.0). Furthermore, since this study focused on freshmen pre-service English language teachers' use of metadiscourse markers, their specific scores on the writing section of the English proficiency exams they have taken were also asked. Accordingly, the mean score of 6 participants who took EPE was 12,1 out of 30 and the participant who took IELTS Academic scored 7 out of 9 (Table 4.2.).

Table 4. 2. Participants' English Proficiency Exam Scores

Participant	Preparatory School Experience	Overall EPE Score	EPE Writing Score
1	no	66	13,5
2	no	70	6
3	no	8*	7*
4	yes	80	8
5	yes	82	6
6	yes	66	17
7	no	90	22,5
Mean		75,6	12,1

* Participant 3 certified their English language proficiency by IELTS Academic

However, in both exams writing is evaluated not only by test takers' use of metadiscourse markers but also on other criteria such as content, organization, use of English, vocabulary, and punctuation. Therefore, even if the participants would have got high scores on the writing parts of proficiency exams that they had taken, it would not necessarily mean that they were aware of metadiscourse and were able to use metadiscourse markers in their writings. In fact, when the '*METU-SFL English Proficiency Examination A Guide for Test-takers*' booklet (<https://epe.metu.edu.tr/EpeKitapcigi.pdf>) is examined, it can be observed that for the writing sample

that was given 12 points out of 30 points, the comments include “... is partly incoherent” (pg. 32). Similarly, according to the rubrics of both writing task 1 and 2 for IELTS (<https://www.ielts.org/media/pdfs/writing-band-descriptors-task-1.ashx?la=en> and <https://www.ielts.org/-/media/pdfs/writingband-descriptors-task-2.ashx?la=en>), writing score 7 indicates “uses a range of cohesive devices appropriately although there may be some under-/over-use”.

Moreover, the participants indicated in the background questionnaire that they received writing an essay instruction in Turkish in their Turkish and/or literature classes. However, except from two participants who were tutored by the private teachers, they have never learnt how to write an essay in English until the preparatory school. What is more, none of the participants received specific metadiscourse marker training – either in Turkish or English – before.

Table 4. 3. Participants’ Pre-Test Results in terms of Metadiscourse Marker Use

Participants	Underuse of MDMs	Overuse of MDMs	Incorrect Use of MDMs
1	1	0	0
2	2	1	3
3	3	1	0
4	1	0	2
5	1	0	1
6	0	0	1
7	1	0	0
TOTAL	9	2	7

Overall, from the participants experience in English writing and metadiscourse marker awareness it was anticipated that the participants would possibly have problems on how to use metadiscourse markers in spite of their overall English language proficiency. That is why, they were asked to sit for the pre-test. Their pre-test results showed that almost all the participants underused interactive metadiscourse markers. Moreover, more than half of them had problems in the correct use of metadiscourse markers in terms of grammar or context (Table 4.3.). Hence, it was concluded that the participants fit the aim the of the current research.

The freshmen students who participated in this study all took 3-credit Expository Writing 1 course. This course aims at giving a concise overview of the essential steps of the writing process such as careful planning, writing, revising, and rewriting. The course begins with different ways for developing a paragraph such as ways of brainstorming, limiting the ideas generated during brain storming, writing the topic sentence, restricting a topic sentence, supporting a paragraph, organizing/outlining a paragraph, editing, proofreading. Then, it continues with a focus on language, appropriate for each type of paragraph, the issues of transition between the different sections within a paragraph and the techniques for beginning and ending a paragraph effectively. After that, the course goes on with the common rhetorical strategies of writing different types of paragraphs (e.g., descriptive, narrative, and expository paragraphs) and some grammar points known to be problematic for the native speakers of Turkish learning English (e.g., subject-verb agreement, pronoun references, the use of articles, relative clauses). The course ends by analyzing punctuation marks that are used differently in Turkish and English. (See Appendix A)

Upon setting a concise framework of participants' background, the main reasons behind selecting freshmen year pre-service English language teachers for this study can be seen clearly. Firstly, the participants were chosen since despite being considered as proficient English users, they still had difficulties in using MDMs in their writings. Secondly, they were taking Expository Writing 1 course already when this research was conducted; thus, the participants were already motivated and ready to learn extra lessons that would be beneficial for their writing skill. The final reason why the participants are fit for the research is the fact all the students who are in SUNY-TEFL program of METU have to present IELTS Academic (at least 6,5 points and at least 5 points in each component of the test) or TOEFL IBT (at least 79 points) test scores prior to their studies at the State University of New Palz. Hence, since writing is an essential component of both of the tests, they needed to learn how to write to write texts using MDMs (Rules and Regulations METU TESOL Dual Diploma Students: https://fle.metu.edu.tr/en/system/files/rules_and_regulations_for_metu_tesol_program.pdf)

4.3. Data Collection Instruments and the Procedure

This current longitudinal study examines the short term and long-term effect of DDL on the use of MDMs (i.e., transitions, frame makers and code glosses) of freshmen year pre-service English language teachers by investigating the types, frequency, and appropriateness of the MDMs in their pre-test, while-tests (5 tests) and post-test as well as uncovering the problems they have in using MDMs and finding out the reasons why they experience such problems. According to Creswell and Creswell (2009), each method, whether qualitative or quantitative, has its own limitations and one method could “neutralize” the downside effect of the other. Thus, for the present research, it was necessary to explain the quantitative results with the qualitative data so that the research could gain a deeper and better understanding of the participants’ use of MDMs and the short term and long-term effect of DDL on their MDM use. According to Creswell (2009, pp. 213), in ‘concurrent triangulation approach’ the researcher collects both quantitative and qualitative data together by using separate data collection tools and compares both data to find out differences, concurrences and confirmations. As the data were collected and analyzed employing both qualitative and quantitative methods concurrently, and the validity of the findings was ensured through triangulation, to answer the research questions, concurrent triangulation mixed method design (Creswell, 2009) was adopted. (See Appendix B and Appendix C for the ethical committee approval form and participants signed consent forms, respectively)

In addition, according to Menard (2008, pp. 3), “in longitudinal research, data are collected on one or more variables for two or more time periods, thus allowing at least measurement of change and possibly explanation of change”. Accordingly, because the aim of this research is to find out the short- and long-term effects of DDL on freshmen pre-service EFL teachers’ use of metadiscourse markers, longitudinal research method is adopted for this research. Therefore, the metadiscourse marker instruction took five weeks and the whole data collection process took 13 weeks (Table 4.4). The data collection instruments which will be explained further in detail include (Figure 4.1):

1. A Background Questionnaire
2. Pre-training English argumentative paragraphs
3. 5 Teaching materials to be used to teach MDMs from TOEFL11 corpus
4. 5 While-training English argumentative paragraphs
5. 2 Progress surveys
6. Post-training English argumentative paragraphs
7. Post-training survey
8. Follow-Up interviews with stimulated recall sessions

Table 4. 4. Stages of Data Collection

Weeks 1-2	Background questionnaire
Week 3	Pre-test argumentative paragraph in English (N=7)
Week 4	Instruction on additive transition markers (30 mins) Controlled Practice on the use of additive transition markers (15 mins) While-test argumentative paragraphs in English (30 mins) (N=7) Feedback on the paragraphs written (within week 4)
Week 5	Instruction on comparative transition markers (30 mins) Controlled Practice on the use of comparative transition markers (15 mins) While-test argumentative paragraphs in English (30 mins) (N=7) Feedback on the paragraph written (within week 5)
Week 6	Instruction on consequential transition markers (30 mins) Controlled Practice on the use of consequential transition markers (15 mins) While-test argumentative paragraphs in English (30 mins) (N=7) Feedback on the paragraph written (within week 6) Online progress survey 1
Week 7	Instruction on frame markers (30 mins) Controlled Practice on the use of frame markers (15 mins) While-test argumentative paragraphs in English (30 mins) (N=7) Feedback on the paragraph written (within week 7) 3 High-score sample paragraphs for analysis from TOEFL11 Corpus
Week 8	Instruction on code glosses (30 mins) Controlled Practice on the use of code glosses (15 mins) While-test argumentative paragraphs in English (30 mins) (N=7) Feedback on the paragraph written (within week 8) 3 High-score sample paragraphs for analysis from TOEFL11 Corpus Online progress survey 2
Week 9	Revision Session
Weeks 10-11	No instruction
Week 12	Post-test argumentative paragraphs in English (N=7) Online Post Survey
Weeks 13	Semi-structured follow-up interviews with stimulated recall (N=7)

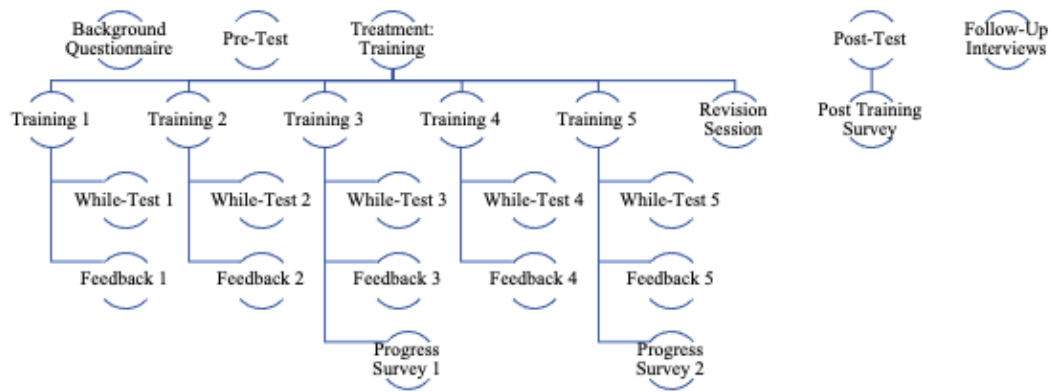


Figure 4. 1. Overall View of the Data Collection Procedure

4.3.1. Background Questionnaire

To collect background information from the participants such as their age, gender, foreign language experiences and background, level of proficiency in English, as well as their and their parents' educational background and level the participants were asked to fill out a background questionnaire (See Appendix D) and send it back to the researcher via e-mail. To be able to provide a concise information about the participants, their answers to the background questionnaire were shown in section 4.2.

4.3.2. Argumentative Paragraphs Written by the Participants and Instruction on Metadiscourse Markers

Since this study aimed at finding out both short-term and long-term effect of data driven learning method on metadiscourse marker use of pre-service English language teachers, longitudinal pre/while/post-test design was adopted. Upon getting background information from students through background questionnaire, in the third week of the 2020-2021 fall term, the students were asked to write an argumentative paragraph between 150-200 words prior to the beginning of the 5-week instruction period as a pre-test. Then, starting from the 4th week the students were asked to write one argumentative paragraph for each week until the 8th week for 5 weeks. Finally, two weeks after the revision session which was held in the 9th

week, they were asked to write one final argumentative paragraph in the 11th week as post-test (Figure 4.2).

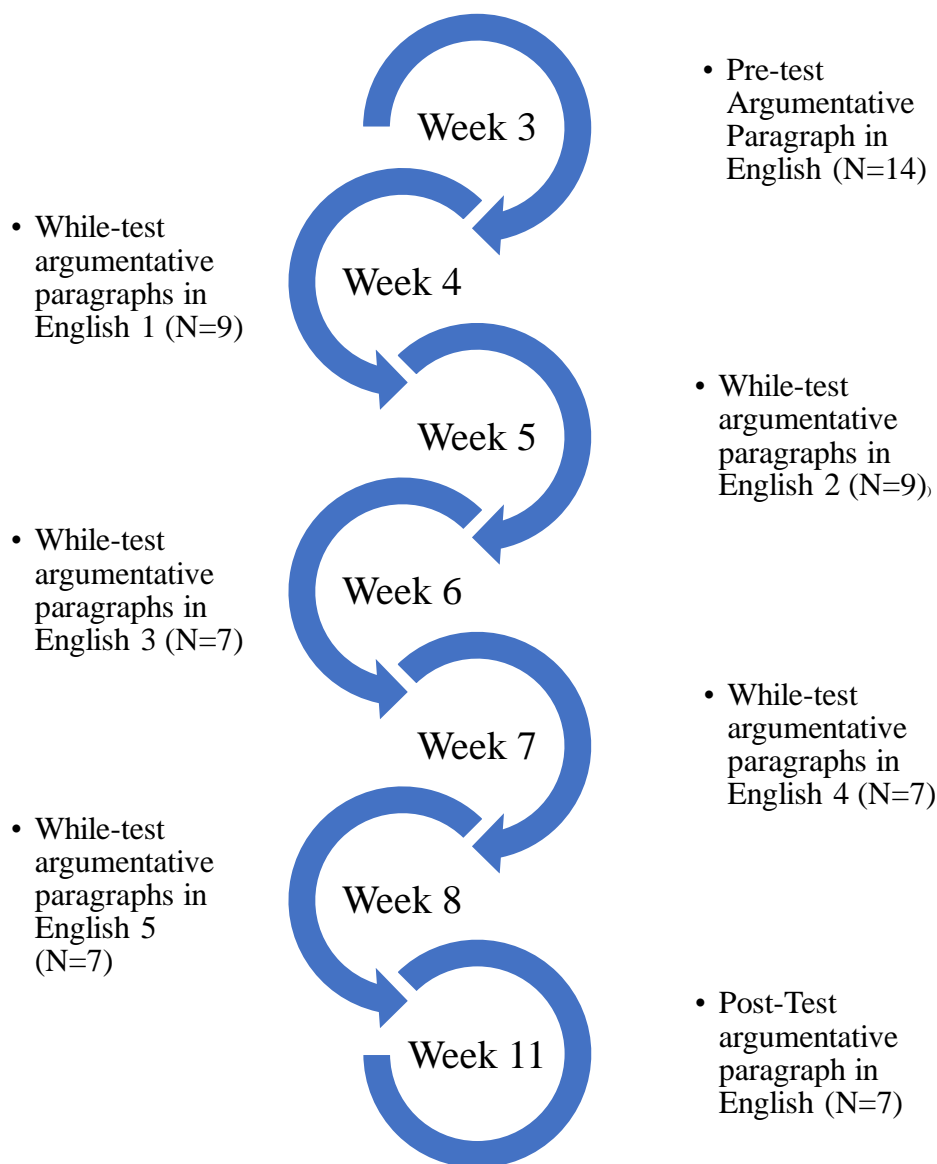


Figure 4. 2. The Steps of Argumentative Paragraph Writing

Pre-test argumentative paragraph writing in English was utilized to find out the types, frequency, accuracy and appropriateness of the MDMs used by the participants and to be able to prepare student-specific materials to be used in the trainings. That is, thanks to the pre-test, the MDMs that were problematic or not used by the students were included in the student specific training material instead

of the non-problematic ones. While-test argumentative paragraphs served for a tool to find out the immediate effect of these trainings.

According to Mackey and Gass (2005, p.149), “to measure long-term effects, researchers often want to include ‘delayed’ post-tests in addition to the immediate post-tests”. Mackey and Gass (2005) also suggest that delayed-post tests and immediate post-tests must be parallel to each other. To that end, post-test argumentative paragraphs were used to observe the overall effect of DDL on the use of MDMs of the participants by comparing and contrasting the pre- and post-argumentative paragraphs statistically. However, when it comes to the length of delay, Schmitt (2010) states that there is not a set amount of time that should pass after the treatment, but he suggests that a delayed post-test should be conducted at least a week after the treatment. Mackey and Gass (2005) also agree that one or two weeks of delay could work. They also put forward that the longer the length of delay is, the more likely the researcher could lose their participants and the greater the effect of extra-experimental exposure will be. Similarly, Loewen and Plonsky (2016, p. 48) propose that “a common time frame for delayed posttests in applied linguistics is between one or two weeks”. In addition, when the studies that measured long-term effect are investigated in terms of their length of delay, it can be seen that Groot and Smedinga (2014) who studied vocabulary and Martini, Riedlsperger, Maran and Sachse (2017) who studied second language story retention both conducted their delayed post-tests a week after their treatment and Shintani and Ellis (2015) waited for two weeks after their treatment on written corrective feedback to conduct their delayed post-test. Hence, in the light of these findings, the post-test of the current study was conducted two weeks after the instruction and the revision session were completed.

Since 2020-2021 fall term was carried out in distance education format at METU due to Covid-19 Pandemic, each participant wrote their paragraphs on their computers using Microsoft’s word processor tool ‘Word’ at the same time and right after each intervention session for the while-test paragraphs. In order to make sure the participants did not get help from anyone or any resource, they wrote their paragraphs while their cameras were on, on Zoom. The research took such a

precaution to make sure the participants utilize only their own knowledge and ability in using interactive MDMs while writing their argumentative paragraphs (Algı, 2012; Ulucay, 2014).

4.3.2.1. Pre-Treatment Student Paragraphs in English

All the participants wrote their pre-treatment argumentative paragraphs in the third week of the fall term of 2020-2021. Since one of the most important motivation sources of the participants in accepting to take part in this research voluntarily is the fact the extra-sessions on MDMs would also prepare them for the TOEFL exam which they are obliged to take to continue their studies at the SUNY New Paltz, the participants were provided with three retired TOEFL tasks. Another reason why TOEFL writing topics were chosen was the fact that the corpus with which the MDM teaching materials were prepared was compiled of the writings of the examinees of TOEFL. Furthermore, according to Polio & Glew (1996), in order to write their best writing and pen down their ideas more comfortably and easily, one needs to be familiar with the topic on which they are writing. Also, Bonzo (2008), puts forward that enabling students to choose the topic that they are going to write on encourages them. That is why, the participants of the current study were provided with three writing topics to choose:

1. Do you agree or disagree with the following statement? “It is better for children to grow up in the countryside than in a large city”.
2. Do you agree or disagree with the following statement? “Parents are the best teachers”.
3. Do you agree or disagree with the following statement? “The knowledge we gain from personal experiences is more valuable than the knowledge we gain from books”.

Most of the participants chose the first writing topic above. They reported that they chose that topic because “it was among the popular topics in Turkey” and “they felt like they could generate more ideas for this topic”. After, when they were asked whether they experienced any difficulties in writing on that topic, all the participants agreed on the fact that it was either very easy or easy for them to write

on this topic. They stated that it was not unknown, and they were able to relate the issue with themselves.

After the writing prompt was agreed upon mutually by the majority, the writing task was made available to the participants through the LMS system called ‘ODTUClass’ (See Appendix E). The participants were asked to download the task on their personal computers and write their argumentative paragraphs in 150-200 words in 30 minutes while they were connected to Zoom, and their cameras were on. Since in TOEFL and IELTS Academic exams they are given 30 minutes, the time allocated for this task was also 30 minutes. 14 students in total wrote pre-treatment argumentative paragraph.

4.3.2.2. Interactive Metadiscourse Markers Training and Practice

A week later when students wrote their pre-test English argumentative paragraphs (i.e., Week 4), 5-week long metadiscourse marker instruction which was conducted online in a synchronous format began. Each week (between weeks 4 and 8), right after their Expository Writing 1 class, students joined the researchers’ virtual classroom on Zoom. The training phase took approximately 30 minutes and after the training, practice lasted approximately 15 minutes.

Both the teaching materials and the practice parts of the instruction were student-specific in that they were prepared specifically for the participants of the present study by the researcher by analyzing their argumentative paragraphs in terms of their use of MDMs, finding out the problematic issues, such as the under/overuse and/or misuse (in terms of grammar, context) of MDMs and including only those in the teaching materials.

Moreover, since this research aims to find out possible effects of DDL on participants’ MDM use, the researcher utilized ‘TOEFL11: A Corpus of Non-Native English’ to prepare data driven materials. According to Flowerdew (2009b), it is essential to choose a corpus which is suitable for the learning goals and the motivation of the students so that DDL could work. In the same vein, according to

Sinclair (1991), large and general corpora such as British National Corpus (BNC) or Contemporary American English (COCA) may not be pedagogically appropriate for teaching English for specific purposes because they generally serve as reference corpora for general-purpose corpus research and as Römer (2008) states, they contain texts from various different genres and registers. On the contrary, specialized corpora can be much handier when it comes to teaching a specific aspect of language since they are produced specifically for a group of learners (Chang, 2014; Tribble, 2013; Yoon, 2011). Another controversial issue to be considered in designing DDL based instruction is related to the inclusion of non-native data. According to Nesselhauf (2004), providing learners with the information about the common problems and difficulties faced by language learners is as significant as exposing learners with the native data. In addition, Gablasova, Brazina and McEnery (2017) suggest that non-native data provides a valuable source of evidence about the language use and development. Hence, since TOEFL11 corpus contains only argumentative essays written by language learners who have taken TOEFL exam, it is found to be appropriate to be utilized while preparing corpus-informed materials.

TOEFL11 is the largest publicly available corpus of English written by nonnative writers and it is annotated for score level by experienced raters. It consists of 12,100 essays written by the test takers in TOEFL IBT exam in 2006-2007 from eight retired prompts (Blanchard, D.; Tetreault, J.; Higgins, D.; Cahill, A. & Chodorow, M., 2013):

1. Do you agree or disagree with the following statement? “It is better to have broad knowledge of many academic subjects than to specialize in one specific subject”.
2. Do you agree or disagree with the following statement? “Young people enjoy life more than older people do”.
3. Do you agree or disagree with the following statement? “Young people nowadays do not give enough time to helping their communities”.
4. Do you agree or disagree with the following statement? “Most advertisements make products seem much better than they really are”.
5. Do you agree or disagree with the following statement? “In twenty years, there will be fewer cars in use than there are today”.

6. Do you agree or disagree with the following statement? “The best way to travel is in a group led by a tour guide”.
7. Do you agree or disagree with the following statement? “It is more important for students to understand ideas and concepts than it is for them to learn facts”.
8. Do you agree or disagree with the following statement? “Successful people try new things and take risks rather than only doing what they already know how to do well”.

The TOEFL IBT exam contains four sections (reading, listening, speaking and writing) and it is delivered by a computer in secure test center. On average, it takes 4 hours to complete the whole test. (About the TOEFL IBT test: <https://www.ets.org/toefl/test-takers/ibt/about/>). In order to complete the writing section, the test takers need to write two different essays: *independent task* and *integrated part*. As all the essays in the TOEFL11 corpus were from the TOEFL independent task, it is important to explain the task in detail. The independent task requires students to write an essay in around 300 words – usually in argumentative genre – in response to a writing topic in 30 minutes. The responses to the independent task are scored on a 5-point scale by two raters (TOEFL IBT writing section: <https://www.ets.org/toefl/test-takers/ibt/about/content/writing/>).

All the essays that TOEFL11 corpus contains were written by non-native test takers from 11 different L1 backgrounds: Arabic, Chinese, French, German, Hindi, Italian, Japanese, Korean, Spanish, Telugu, and Turkish and they were annotated by the L1 background of the test takers (Blanchard, et. al., 2013). The reason why those languages were chosen was the fact that the main aim of compiling TOEFL11 corpus was to have a large number of essays per L1 that was evenly distributed across language and prompts. As a result, the only L1s for which the set contained at least 1,100 essays were considered when sampling (Blanchard, et. al., 2013). Furthermore, all the essays were also annotated in terms of their score range: high (4-5), medium (2.5-3.5) and low (1-2) scored-essays on a 5 point-scale (Blanchard, et. al., 2013).

The corpus-informed materials used in MDM instruction were prepared utilizing only high scored essays in the TOEFL11 corpus because the aim of the materials was to teach participants the correct use of MDMs and thus it was plausible to use only the high scored ones. On the other hand, all the high scored essays regardless of their writers' L1 background was included so that the participants were able to see the most common usages of MDM from various English users from different L1 backgrounds. Overall, the sub-corpus used for this research, which was named as 'TOEFL-High', contained 4,202 essays and 1,538,120 tokens. (Table 4.5).

Table 4. 5. The Distribution of TOEFL-High Corpus in terms of L1 Background

Language	# of essays	Language	# of essays	Language	# of essays
Arabic	199	Hindi	642	Spanish	458
Chinese	81	Italian	313	Telugu	347
French	460	Japanese	188	Turkish	394
German	673	Korean	253		

TOEFL-High corpus was utilized for two main reasons. Firstly, the researcher used it as a reference corpus to analyze the frequencies of the metadiscourse markers in the corpus to decide on which forms to include in the teaching material to increase the variety. Secondly, it was used to prepare corpus-informed materials in indirect DDL fashion. According to Daskalovska (2015), this approach enables learners to work with authentic data in a stress-free environment since learners are not required to figure out how to use corpus tools while consulting to corpus data which could be highly overwhelming for learners. Even though via indirect approach the learners' access to corpus data may be limited to the ones in the teaching materials, it was still thought to be more convenient to adapt data driven learning method in the indirect way since the training took place in a virtual environment and the researcher could not make sure all the participants had access to and/or are able to use corpus tools.

Each student specific material (See Appendix F) consisted of three sections: (1) analyze, (2) discover and (3) practice. In the analyze part the participants were provided with concordance lines (the corpus-informed sentences) that included target metadiscourse markers in context. The students were given 10 to 15 minutes to analyze them. Then, in the discover part they were given another 10-15 minutes

and they were asked four questions that will help them to discover the usage, the meaning and the importance of the metadiscourse markers. Finally, in the practice part, which took approximately 15 minutes, they were provided with fill in the blanks, sentence completion, paragraph completion or cloze test corpus-informed exercises to use the metadiscourse markers learnt each week (Figure 4.3).

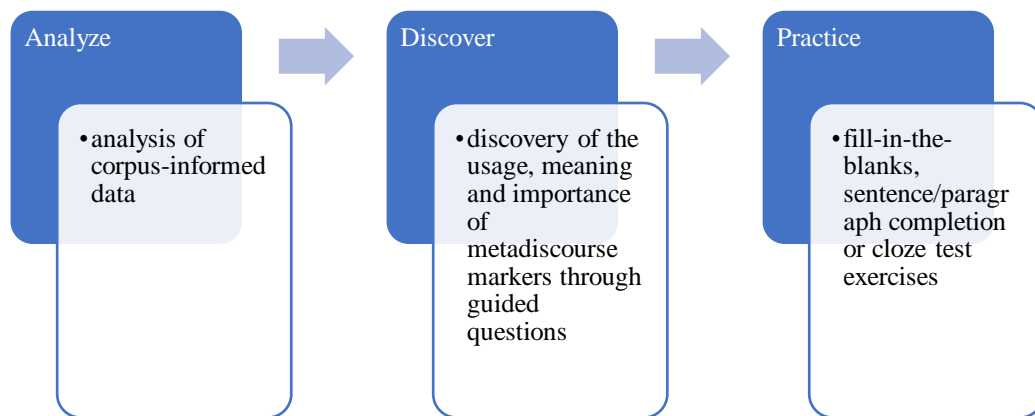


Figure 4. 3. Corpus-Informed Teaching Material Flow

The 5-week MDM instruction started with ‘transition markers’ and between weeks 4,5 and 6 the participants were trained for ‘additive’, ‘comparative’ and ‘consequential’ transition markers respectively. Later, in week 7 the training sessions continued with ‘frame markers’. In week 8, the training was over with ‘code glosses’. The interactive metadiscourse markers were instructed in that order because according to the literature transition markers were found to be used most, followed by frame markers and finally code glosses (Hyland, 2007; Hyland and Tse, 2004; Khedri, Heng and Ebrahimi, 2013, Li and Wharton, 2012; Mur-Duenas, 2011). Thus, the importance order was followed.

4.3.2.3. While- Treatment Student Paragraphs in English, Feedback and Example Paragraphs

Upon each interactive metadiscourse treatment week (between weeks 4-8) the students were asked to write an argumentative paragraph of 150-200 words in 30 minutes (See Appendix G). As the participants of the current study wrote those argumentative paragraphs in a virtual environment, they were required to keep their

voice and cameras on while writing so that getting help from any resource was prevented. When they finished, they were required to submit their writing tasks through ‘ODTUClass’. Similar to pre-task writing topic, the writing topics were again chosen among the retired TOEFL independent writing tasks (Figure 4.4).

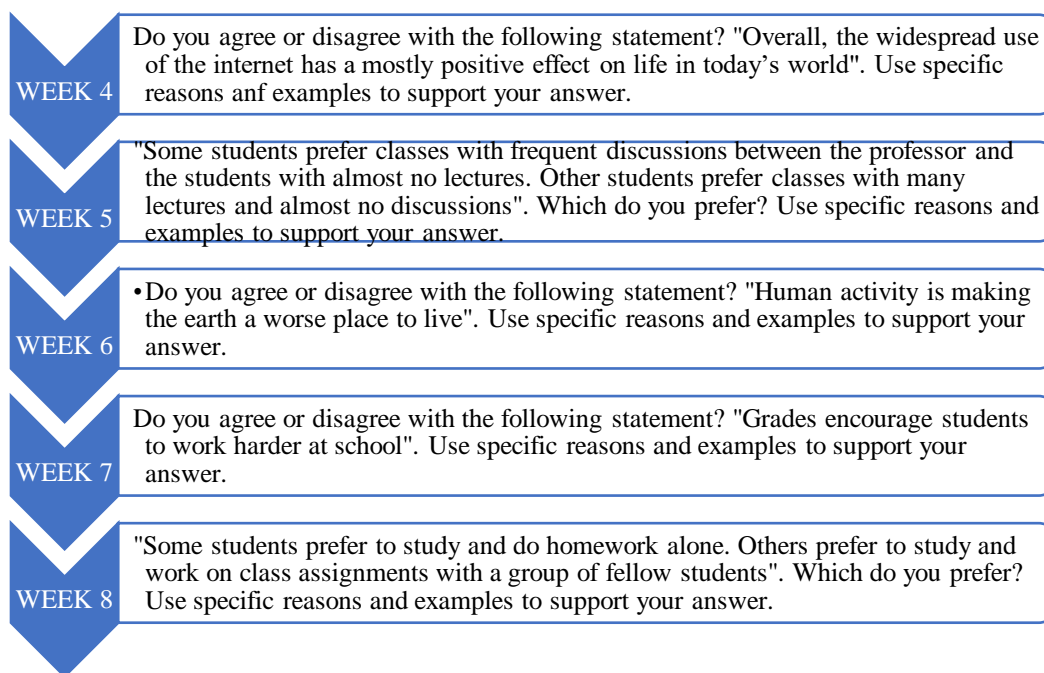


Figure 4. 4. While-Treatment Writing Topics for Each Week

Those topics were chosen specifically for two reasons. First, they were thought to encourage students to use the metadiscourse markers learnt in each week. For instance, in week 4 students got additive transition markers training and after that, they were asked to write on the following topic: “Do you agree or disagree with the following statement? "Overall, the widespread use of the internet has a mostly positive effect on life in today's world", because it was thought that the students could list the positive or negative effects of the use of the internet by using additive transition markers while supporting their arguments. Second, the participants were thought to be familiar with the topics since three of the topics were in educational context and the participants were pre-service English language teachers and the other two of them were current issues going on the mass media.

Furthermore, when the students were asked whether they found it difficult to write about the topics on a 5-point Likert scale, overall, it was found out that none of the writing topics were hard or too hard for them (Figure 4.5).

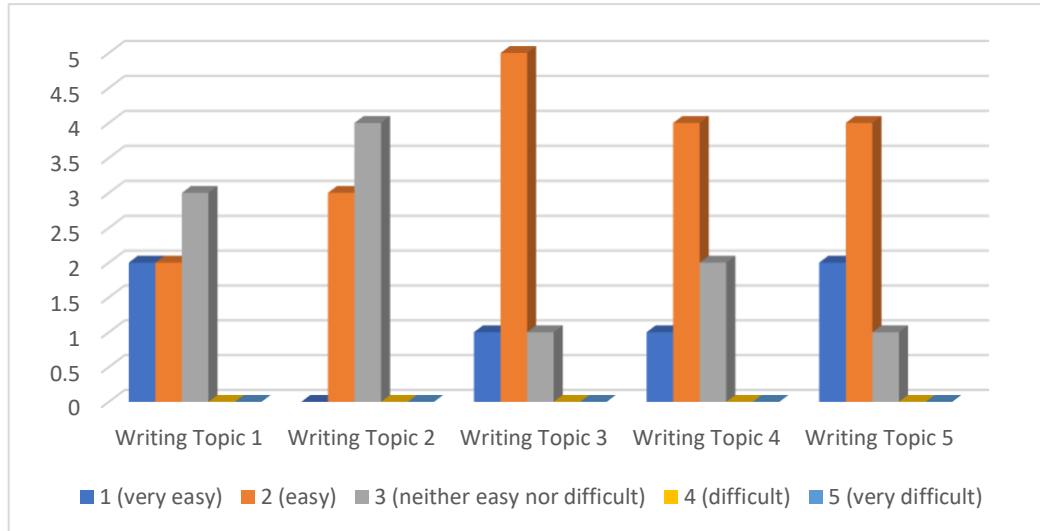


Figure 4. 5. Participants’ Perceived Writing Difficulty Regarding the Writing Task

The two aims of while-treatment argumentative paragraphs were to find out the immediate effect and of DDL on the instruction of each category of metadiscourse marker and to provide them with feedback so that they could see their mistakes and work on them. Thus, after each student had written and submitted their paragraphs, within one week they were provided with indirect corrective feedback (Ellis, 2009) only on their metadiscourse marker use. Feedback was given via ‘comment’ function of Microsoft Word (Figure 4.6) and then uploaded on ‘ODTUClass’.

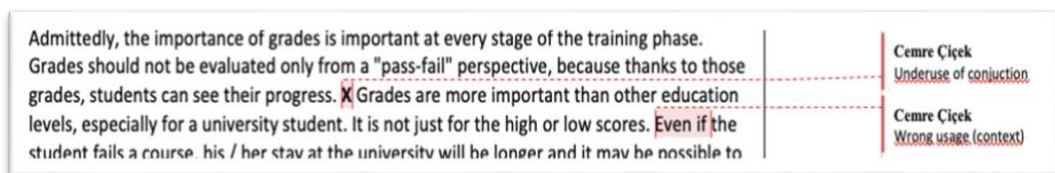


Figure 4. 6. An Example of E-feedback

Each participants’ feedback without including any personal information about the writer was made available for everyone to review since it could enable participants

to see more examples, more feedback and consequently learn from others' mistakes. The participants were not required to revise their previous writings and write second drafts because this training adopted product writing approach rather than process writing. The reason behind this choice derived from the fact that each week a different category of interactive MDM was focused, and the researcher tried to provide the participants with the opportunity to employ the targeted interactive MDMs more by providing appropriate tasks. Thus, working on drafts for the previous tasks and writing new tasks at the same time would have been overwhelming for the participants. Still, the researcher was available to elaborate on the feedback she had provided via e-mail and/or video-call sessions on Zoom. Also, at the end of the trainings (i.e., in Week 9) the participants were invited to the revision session which took place on Zoom at the same day and time as the training. This session aimed to provide the participants the opportunity to ask any questions regarding the feedback they received and metadiscourse marker use, in general. When they were asked about the feedback on the progress and post surveys, none of the participants reported any issues. On the contrary, they all stated they the feedback they received was clear and instructive enough for them (Figure 4.7).

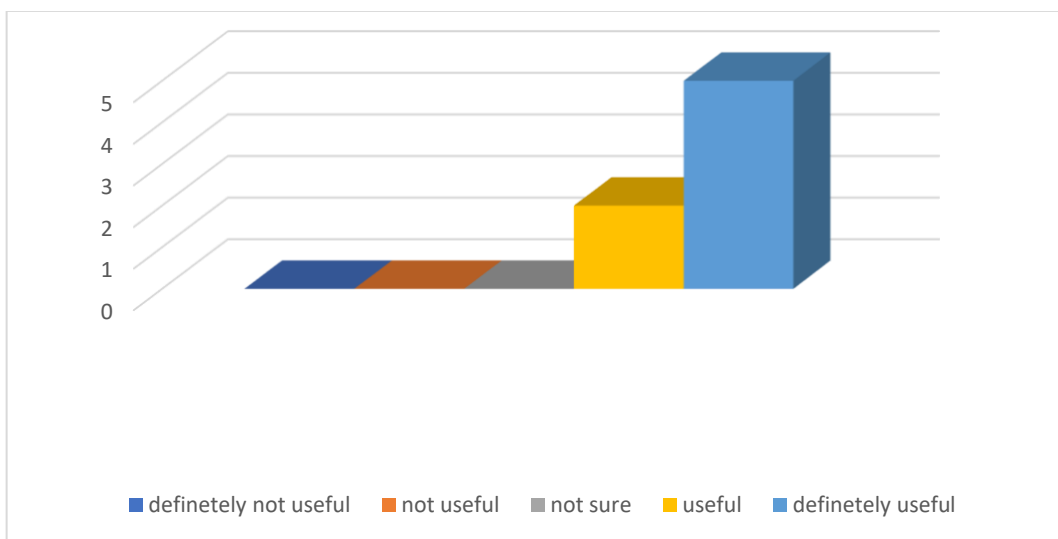


Figure 4. 7. Participants' Perceived Feedback Usefulness

In weeks 7 and 8, the students were also provided with 6 different sample paragraphs in two sets as the need for them arose upon analyses of progress surveys. Therefore, each example paragraph set contained three paragraphs taken

from TOEFL-High corpus. The aim of these paragraphs was to let the participants be exposed to more examples and to enable them to analyze the metadiscourse markers that they reported to be problematic in their progress surveys. Those paragraphs were also analyzed in detail in the revision session in week 9. When the students were asked whether the sample paragraphs were difficult for them to analyze on their own in the post survey, they reported that they weren't too easy or too hard, they were just appropriate for their level (Figure 4.8).

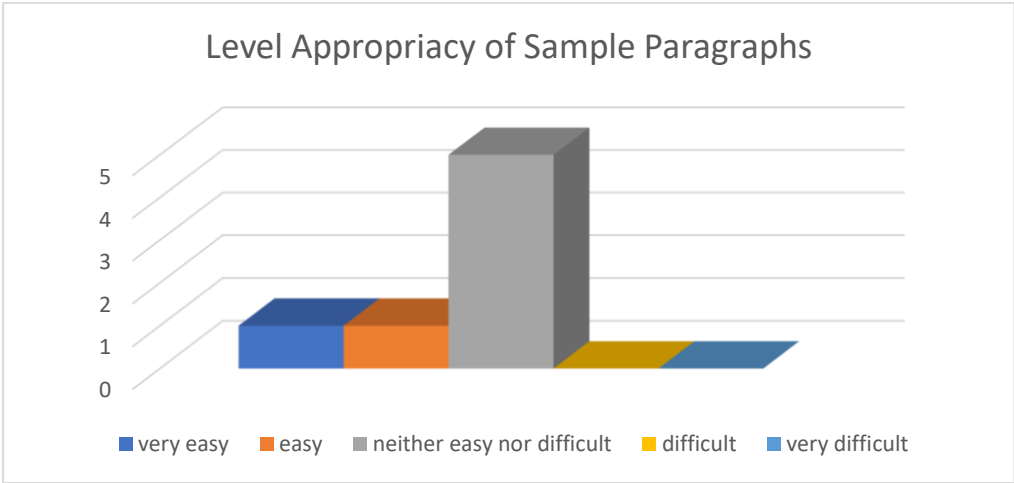


Figure 4. 8. Participants’ Perceived Difficulty Regarding Sample Paragraphs

They also reported that seeing sample paragraphs were useful “to be able to compare their writings with them” and “to see different examples” (Figure 4.9).

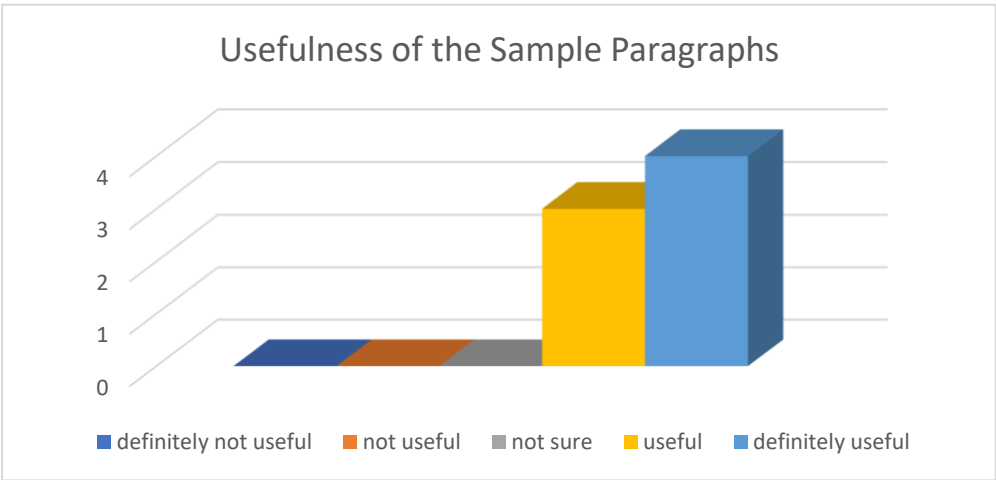


Figure 4. 9. Participant’s Perceived Sample Paragraph Usefulness

4.3.2.4. Post- Treatment Student Paragraphs in English

In Week 12, two weeks after the 5-week training on metadiscourse markers and the revision session were over, all the seven participants of the current study were asked to write an argumentative paragraph in 150-200 words in 30 minutes (See Appendix H). The same procedure as the pre- and while- treatment tasks was followed and the students wrote their argumentative paragraphs using Microsoft Word on their personal computers while their cameras and voice were on, on Zoom and submitted their work through ‘ODTUClass’.

According to Hinkel (2009), Swales (2004) and Uluçay and Hatipoğlu (2017), for pre-test-post-test design research, providing different topics for pre- and post- tests would lead the participants to use different structures. Also, it was observed that the topic of the pre-test was already interesting for them. Hence, a very similar topic to the one in the pre-test was chosen by the researcher: “Do you agree or disagree with the following statement? It is better for parents to raise children in the countryside than in a large city”. By asking the participants to write an argumentative paragraph on a very similar topic to that of the pre-test, the researcher aimed at analyzing the effect of MDM training which adopted DDL methodology. In other words, the goal of the post test was to find out whether MDM training helped students to use various MDMs correctly and appropriately.

When the students were asked whether they found writing an argumentative paragraph about the topics before and after the trainings, students reported that it was indeed difficult for them to write a paragraph on this topic before the trainings (Figure 4.10) because “they could not organize their thoughts and ideas, and consequently, they could not link the sentences in their paragraphs to generate a coherent paragraph”.

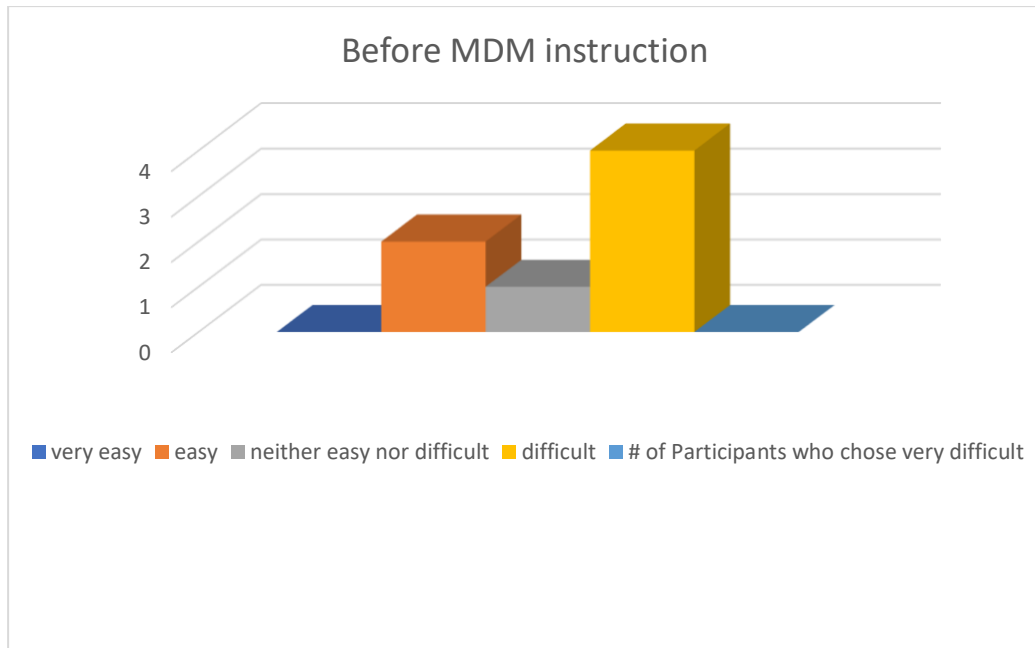


Figure 4. 10. Participants’ Perceived Difficulty in terms of Post-Test before MDM Instruction

Moreover, they reported that “the topic got easier to write after the trainings because they learnt how to organize their thoughts in their paragraphs by using MDMs and to make connections between their ideas” (Figure 4.11). Also, they reported that “seeing authentic examples enabled them to discover how MDMs are used”, and “they started to use some MDM that they abstained from using them before because they gained confidence after receiving training on MDM use”.

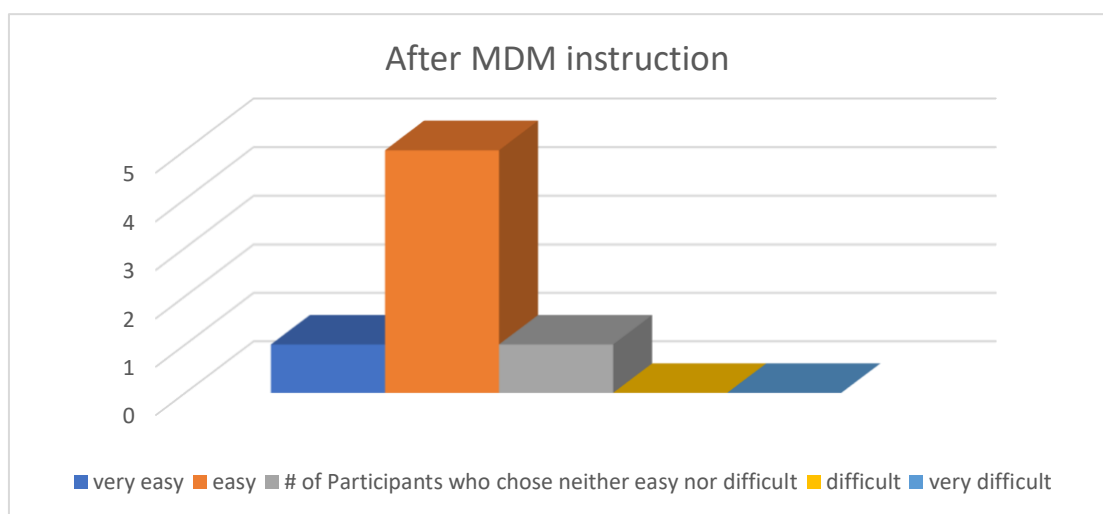


Figure 4. 11. Participants’ Perceived Difficulty in terms of Post-Test after MDM Instruction

4.3.2.5. Online Surveys

Creswell (2009) states that:

the problems addressed by social and health science researchers are complex and the use of either quantitative or qualitative approaches by themselves is inadequate to address this complexity. [...] There is more insight to be gained from the combination of both quantitative and qualitative research than either form by itself. Their combined use provides an expanded understanding of research problems. (p.203)

In the light of this statement, to be able to obtain in depth insight into participants' perceptions on the use of MDMs and their importance in writing coherent paragraphs and the effectiveness of the training sessions as well as the materials, feedback, and sample paragraphs, three online surveys were conducted. All the questions in the surveys were written in Turkish and the participants were also asked to respond in Turkish to make sure the participants were able to reflect on their progress and state their ideas without any language barriers (Dörnyei, 2007).

According to Menard (2008), longitudinal research can unveil the reason behind change in progress. Therefore, to observe the progress of the participants' perception and attitudes towards MDMs use, the DDL methodology adopted in training as well as the training itself, two of the online surveys, which were called 'Online Progress Survey 1' and 'Online Progress Survey 2', were conducted in 6th and 8th weeks (See Appendix I). 'Online post survey' was conducted in Week 12 (See Appendix J).

All the surveys were created using 'Google Forms' and they were made available to students through 'ODTUClass' by embedding the unique URL address for each survey. In addition, the URL address of each survey was also sent to participants' e-mails. As at the time of the data collection, ODTU adopted distant education system due Covid-19 pandemic, therefore using online surveys was the only convenient option and the participants did not mention and problems regarding the surveys' being online. The participants were given 2 days to complete the progress surveys and each one is thought to took approximately 20 minutes to finish. The participants

filled out the post survey right after they had written their post argumentative paragraphs and it took 30 minutes to complete.

Online progress survey 1 and 2 aimed at observing students' progress while the training was ongoing so that the research could make the necessary changes in terms of the format of the instruction, materials, and feedback. They also targeted to find out the problematic MDMs after the instruction in order for research to revise the MDMs to be taught and revised in the revision week and to decide which MDMs to include in the sample paragraphs for further analysis. Therefore, it included three main sections. The first section was about the difficulty level of the while- training writing topics. The participants were asked to rate the difficulty level of each topic that they had written on until the online progress test was implemented via 5-point Likert scale. They were also asked to elaborate on their ratings via open-ended questions. The second section was on the problematic MDMs. The participants were asked to check all the MDMs that they thought they still had problems in using via check boxes. Then, they were asked to explain the reason behind via open ended questions. The third part included questions about the methodology of the instruction. Therefore, that part included mostly open-ended questions on the effectiveness, usefulness and sufficiency, advantages and disadvantages of the methodology of the trainings and on participants' perceptions on their progress related to the trainings. The only 5-point Likert Scale type of the question in this section was on the difficulty level of the corpus-informed sentences/paragraphs used in the materials.

Online post intervention survey was conducted because the researcher wanted to observe participants' overall perceptions and attitudes towards MDM use, their importance and the efficacy of the DDL approach and the trainings, materials, and feedback provision. It was also consisted of three parts. In the first part, the students were asked to rate the difficulty level of the post- training writing topic by 5-point Likert scale and explain the reason of their choice via open ended questions. In the second part they were again asked to check all the MDMs they think were still problematic after the training via check boxes and explain the reason why via open-ended questions. The third part included in-depth open-ended questions and 5-point

Likert scale items about data driven learning methodology and the training, feedback provision and revision sessions.

4.3.2.6. Student Diaries

Since in longitudinal studies, obtaining in-depth data on participants’ progress at the time of intervention is essential (Menard, 2008), during MDM trainings between the 4th and 8th weeks for 5 weeks, the participants were asked to write diaries. They were consisted of five questions (Figure 4.12) that helped the participants to elaborate on their weekly learnings

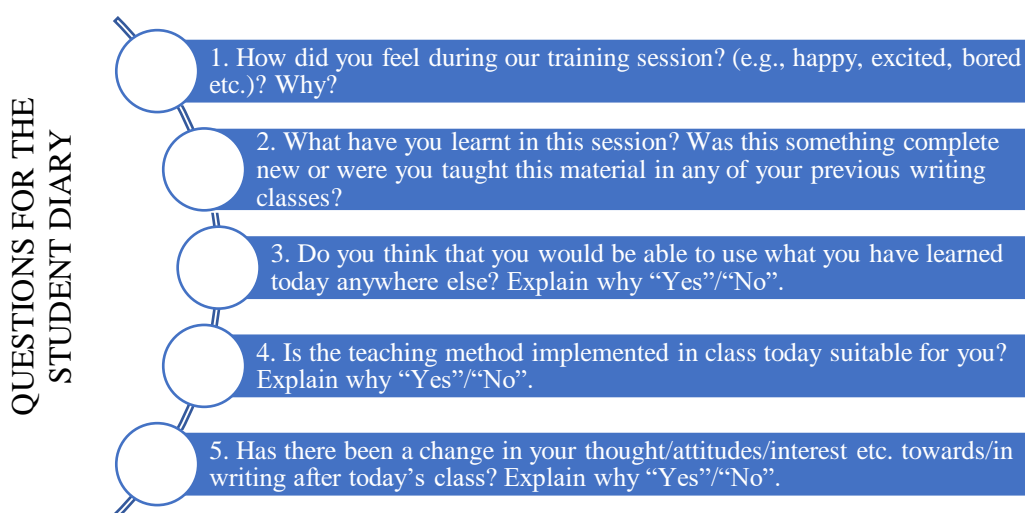


Figure 4. 12. The Five Questions in Student Diaries

The participants wrote their diaries on Microsoft Word right after they had written their while-training argumentative paragraphs and they submitted their diaries through ‘ODTUClass’ together with their writings.

4.3.2.7. Semi-Structured Interviews with Stimulated Recall Sessions

According to Gass and Mackey (2013), stimulated recall is an introspective method that necessitates the presence of a reminder such as an audio/video recorded event, or physical writings for the participant to recall the event and reflect on it. Accordingly, in these stimulated recall sessions, the participants were shown their own pre- while- and post- training argumentative paragraphs that they had written

in discourse-based interview design (Odell, Goswami and Herrington, 1983; Bogdanović and Mirović, 2018). That is, the occurrences metadiscourse markers in participants' argumentative paragraphs were found and highlighted and the participants were asked questions to elaborate on why they preferred/not preferred using specific metadiscourse markers. Therefore, stimulated recall sessions aimed at finding out the reasons behind participants employment/avoidance of specific MDMs.

Upon stimulated recall sessions, participants were also asked questions regarding the methodology of the training. Since the interviews were semi-structured, it was possible that the questions asked to each participant were different. Some possible interview questions were as follows:

1. Why did you use so many / so few metadiscourse markers in your paragraphs?
2. Why do you use specific metadiscourse markers in your paragraphs?
3. What other metadiscourse markers could you have used instead of X?
4. Why do you abstain from specific metadiscourse markers?
5. When you analyze all your paragraphs, do you observe any differences? Why do you think these differences occurred? / Why do you think there are not any differences?
6. Do you think there is an improvement in your metadiscourse marker use? Why? / Why not?
7. Do you think the materials used in our trainings were useful? Why? / Why not?
8. Could you tell me one advantage and one disadvantage of our training methodology?
9. Have you received any trainings via corpus-informed materials before?
10. What do you think of using corpus-informed materials?

Even if the participants of the current study proved their English language proficiency, in order to obtain a richer data on participants' underlying reasons for their use of metadiscourse markers and thoughts and attitudes towards the materials and the sessions, the interviews were conducted in their native language, Turkish (Dörnyei, 2007).

The semi-structured interviews with stimulated recall sessions took place on Zoom due to the distance education format adopted by ODTU because of Covid-19 pandemic. Each participant was appointed a date and time and unique Zoom

invitation links were sent to them via e-mail. The sessions were video recorded to be able to catch all the important information the participants provided upon getting both written and verbal consent of the participants. (Dörnyei, 2007).

4.4. Data Analysis

In this section, how the quantitative (TOEFL11, TOEFL-High, pre- while- and post-argumentative paragraphs) and qualitative data (diaries, online progress and post surveys and stimulated recall sessions with semi structured interviews) were analyzed is presented.

4.4.1. Analysis of TOEFL11 Corpus

As it was stated in section 4.3.2.2, the researcher created corpus-informed interactive metadiscourse marker training materials via TOEFL-High sub-corpus which contained 1,538,120 running words from TOEFL11 corpus. To so, the researcher analyzed the corpus in the following stages:

Stage 1: Only the essays which were annotated as ‘high’ in TOEFL11 corpus were found out and separated from the others. Since each essay file was typed in ‘.txt’ format already, the researcher did not need to change the format of the files.

Stage 2: “TOEFL-High” sub-corpus was compiled by uploading each ‘high’ annotated essay onto ‘#LancsBox 4.5’ (Brezina, Timperley and McEnergy, 2018), a corpus analysis tool that enables its users to calculate frequency of words, to find out N-grams and conduct Key Word in Context (KWIC) analyses. The program is quite user-friendly, and it has the capacity to run reliable statistical analyses. Moreover, the research had previous experience on this tool.

Stage 3: In order to decide on which metadiscourse marker to include in the teaching material, The researcher needed to a reference search list of transitions, frame markers and code glosses. The reason behind the need for a reference search list to provide students with the most frequently used interactive MDMs in

argumentative paragraph genre. In addition, in the literature it was observed that other studies whose main foci were metadiscourse markers (e.g., Can, 2006; Mohamed & Rashid, 2017; Ho & Li, 2018; Qin & Uccelli, 2019) also created reference lists. Therefore, firstly, the researcher went through the literature to find out the most common interactive MDMs in argumentative genre. Then, by running frequency analyses the most common interactive metadiscourse markers were found in TOEFL-High corpus. The corpus can be considered as a reference corpus as it was larger than the study corpus (Berber-Sardinha, 2000). Hence, it was meaningful to take the frequencies of interactive metadiscourse markers in TOEFL-High corpus into consideration.

Stage 4: Upon deciding on the specific interactive metadiscourse markers to be used in the training materials, the researcher revised them by analyzing participants' accurate usages of them and she excluded the non-problematic ones. When the final list of interactive metadiscourse markers to be included in the materials was decided, the researcher ran KWIC analyses on #LancsBox 4.5 (Brezina, et. al., 2018) to find each interactive MDM in context. Then, she selected concordance lines in terms of appropriacy and included them in the corpus-informed, student-specific interactive metadiscourse marker training materials (Figure 4.13).

Search however		Occurrences 1,856 (12.07)	Texts 1,268/4,202	▼ Corpus TOEFL11-HIGH	▼ Context 7	▼ Display Text
Index	File	Left	Node	Right		
1	1000025.txt	sports for young people to attend today.	however,	at the same time, there are so		
2	1000276.txt	seems to be overwhelming to a buyer.	However,	they need to know what is going		
3	1000434.txt	produce famous products for profits and money.	however,	that business will not grow beyond the		
4	1000434.txt	as usually as any other common restaurants.	However,	the owner thought that it did not		
5	1000434.txt	come to his restaurant with great pleasure.	However,	Kropper had insight to see further future		
6	1000434.txt	illustrates people that did not like risks.	However,	another protagonist, rich businessman steps up and		
7	1000434.txt	to funds all the money for project.	However,	the project is very successfully done as		
8	1004335.txt	of conversation will have the upper hand.	However,	once the dinner has ended, such a		
9	1004652.txt	learns broad knowledge of many academic subjects.	however,	the other of which believes that we		
10	1005252.txt	together may assist each other when needed.	However,	an other positive factor when travelling in		
11	1005252.txt	a decision on behalf of the group.	However,	travelling in a group may deprive you		
12	1006416.txt	that it is usually done in group.	However,	that does not mean that it is		
13	1006416.txt	travel is often cheaper than individual travel.	However,	group travels lead by a tour guide		
14	1006787.txt	to participate in such kind of activities.	However,	from my experience, it is difficult to		
15	1007337.txt	lectures about Barcelona to learn about Barcelona.	However,	Guide could still provide lots of information		
16	1007337.txt	it gives us limited amount of information.	However,	guide's studied for a long time. For		
17	1007337.txt	bench shows another genius aspect of Gaudi.	However,	our guide told us that this bench		
18	1008718.txt	of one". Ofcourse, specialization is indeed beneficial.	however,	what 's needed to succeed in this		
19	1008718.txt	the form of masters is indeed imperative,	however,	that happens mostly for a purpose of		
20	1010664.txt	of the leader of trying new things.	However,	Well Fargo succeeded. After several years of		
21	1011083.txt	by almost anyone in any industrialized country.	However,	this apparently good change of the situation,		
22	1011083.txt	be to find some alternative energy font.	however,	researches in that field have been growing		
23	1011083.txt	using, so to prevent the environment that	however,	by that day will probably be seriously		
24	1011748.txt	to see the main things to see.	However,	the major drawback of this alternative appears		
25	1011748.txt	then a different alternative should be taken.	However,	if the objective of a short journey		
26	1012615.txt	character, personality and needs of each person.	However,	when you are traveling in a group		
27	1012615.txt	are willing to talk with the locals.	However,	there is not enough time to have		
28	1012615.txt	visited by people all around the world.	However,	once you are there, eventhou the sight		
29	1013452.txt	not likely to cease for modern life.	however,	the supply which will enable people to		
30	1013800.txt	to be done in order to evolve.	However,	there are some times when people who		
31	1014199.txt	enjoy life more than older people do.	However,	I do believe that at each stage		
32	1015461.txt	active whereas older people are less mobile.	However,	there is no limit to enjoying life.		
33	1015461.txt	life more enthusiastically and with more thrill.	however,	elderly also get the same joy out		
34	1015924.txt	that such theories or hypothesis posed. If	however,	mathematicians and physicists worked in isolation, they		
35	1015924.txt	have helped in innovation in all sphere.	However,	the requirements of other sciences has also		
36	1015924.txt	patterns and simulate the same. These would	however,	not be possible if the people engaged.		
37	1017153.txt	to the community. I do not think,	however,	that this development is inevitable. My experience		
38	1017608.txt	commodities and meanwhile encouraged much more customers.	However,	we may also have heard of some		
39	1017608.txt	overseas without adding any adjunctions on it.	However,	the woman found out that her television		
40	1017829.txt	to know from population to income rate.	However,	in order to understand ideas and concepts		
41	1017829.txt	depending on others, students cannot be independent.	However,	students should study and work to understand		
42	1017876.txt	quality product with a rather weak service.	However,	their marketing is so outstanding that they		
43	1017876.txt	what they were told in the advertisement.	However,	one point has to be mention. As		

Figure 4. 13. KWIC Output from #Lancsbox 4.5

4.4.2. Analysis of Pre- While- and Post- Training Argumentative Paragraphs

The present research used Hyland's (2005) metadiscourse taxonomy while analyzing interactive metadiscourse markers used in participants' pre-, while-, and post- training argumentative paragraphs and all the 49 paragraphs (N=7 in pre-training test, N=35 in while-training tests and N=7 in post training test) written by the participants of the current research were analyzed in 4 steps.

4.4.2.1. Transferring Pre- While- and Post- Training Argumentative Paragraphs into MAXQDA

The present study aims at finding the types, frequencies and functions of interactive metadiscourse markers employed by freshmen pre-service English language teachers in their argumentative paragraphs and investigate the effect of data-driven learning method on the participants' use of these markers. That is why, the participants' pre-, while- and post- training argumentative paragraphs were analyzed via the qualitative data analysis tool 'MAXQDA'. It is a tool that enables researchers to analyze their qualitative data by assigning them different codes or categories. Moreover, the frequencies of each code/category can be calculated. Thanks to this tool, the types of the interactive MDMs used by the participants were categorized and the frequency of markers in each category were calculated systematically. Therefore, the risk of miscalculation was minimized.

Since all the argumentative paragraphs, were collected online due to Covid-19 pandemic, they were already available for the research in ".doc" format. Therefore, I did not need to digitalize them for analysis. However, while transferring them to the MAXQDA, the spelling mistakes of interactive metadiscourse markers were checked corrected because not doing so could lead to getting unreliable study results. Nevertheless, all the other errors in students' paragraphs were remained intact. For the ethical considerations, in the argumentative paragraphs transferred to MAXQDA the participants real names were not used. Instead, a number was assigned to each participant and their tests were numbered accordingly.

The students' argumentative paragraphs were saved in different files according to their test type. For instance, pre-training tests were collected under "pretest" file. Hence, there were seven different files and each file included seven student argumentative paragraphs, in the end: (1) pretest, (2) TM-AD-P1, (3) TM-CON-P1, (4) TM-COM-P1, (5) FM-P1, (6) CDG-P1, (7) post-test. These seven different study corpora were uploaded onto MAXQDA file by file (Table 4.6).

Table 4. 6. Study Corpora Information

File Name	Total number of Words	# of argumentative paragraphs
PRETEST	1524	7
TM-AD-P1	1185	7
TM-COM-P1	1281	7
TM-CON-P1	1175	7
FM-P1	1313	7
CDG-P1	1267	7
POSTEST	1598	7

According to Sancak (2019, p.39), "whether one particular marker is metadiscoursal or not should be checked in context" because according to Hyland (2005), all the items can have either one of the meanings depending on the context that they are used. Therefore, functional analyses of Hyland (2005) were adopted to identify the MDMs. The term "*functional*" in metadiscourse studies is explained by Hyland (2005) as:

...it refers to how language works to achieve certain communicative purposes for users. It therefore concerns whether a stretch of language is asserting a claim, directing readers to an action or response, elaborating a meaning, posing a question and so on. Functional analyses recognize that a comprehensive and pragmatically grounded description of any text must involve attending to the use of language in relation to its surrounding co-text and the purpose of the writer in creating a text as a whole. The emphasis is therefore on meanings in context, how language is used, not what a dictionary says about it. So, when considering any item as a candidate for inclusion as metadiscourse, the question is not 'what is the function of this item?' but 'what is this item doing here at this point in the text?' (p.25)

Furthermore, Hyland (2005) states that "we have to distinguish transitions which connect *activities* and those which connect *arguments*, with metadiscourse referring only to this second, discourse-organizing role" (p. 166). For example, for the additional transition marker '*and*' to be considered as an MDM, it needs to connect ideas or link ideas so that they are connected to the other parts of the text. The following example demonstrates these two functions:

Example 4. 1. Distinction for Metadiscoursal (a) and Propositional (b) Functions of Markers, AND

(a) the internet is an important part of our daily lives and there is no doubt that it has a positive influence on the way we live.

(b) Furthermore, we have access to a lot more content and materials that can be found in databases which broaden our horizons

In Example 4.1(a), and is used to link argument-internal elements, while in 1(b) it lists elements.

When the different functions and values of interactive metadiscourse markers are taken into consideration, running frequency analyses for each interactive metadiscourse marker may not yield meaningful results for this research. That is why, in order to decide whether a particular MDM in the data has metadiscoursal or propositional meaning, two raters – the researcher of the current study and a 29-year-old female researcher² – arrived at a consensus through visual inspection of the argumentative paragraphs written by the participants as pre-, while- and post-instruction tests and the markers that did not carry metadiscoursal function and value were discarded from the frequency analyses.

4.4.2.2. Categorization of the MDMs in Pre- While- and Post- Training Argumentative Paragraphs

In this stage, all the argumentative paragraphs (N= 49) were first read and analyzed carefully to find all the elements that function as metadiscourse. Then, those items were highlighted by the researcher (Figure 4.14). After that, all the highlighted items were analyzed again to find out their categories that they belong to (i.e., additional transition markers, comparative transition markers, consequential transition markers, frame markers, code-glosses) and they were highlighted in different colors according to their categories. (i.e., additional transition markers in pink, comparative transition markers in red, consequential transition markers in yellow, frame markers in green, code-glosses in blue) (Figure 4.15). However, the

² The second researcher is an experienced English language instructor who has been teaching writing and grading writing papers. She is also conducting her own MA thesis study in English language teaching.

fact that some MDMs can be multifunctional was also taken into consideration and these markers that differ in the function were put into different categories.

It is a fact that the environment children grow up in play a major role in their development, especially when they are younger. **Therefore**, there are huge differences between how children living in the countryside or a large city behave. In my opinion, living in the countryside would be more beneficial to children than living in the city. **To start off**, being in touch with the nature would help them understand not only the world around them but also themselves. It is absolutely vital for small children to live in a place that is natural for them to develop self-consciousness **and** gain awareness about the planet they are on. **That way**, they will grow up to be mindful citizens that care about the issues related to the environment. **In addition**, the countryside is quieter and calmer than the city. **This would mean** a less stressful life for both the child and parents **as** there would be minimal risk factors. **Because** the parents are **also** less stressed out, they would be able to raise the child better as well. Some may argue that there are better opportunities for education and healthcare in big cities, **and thus** it is the better option. **Although** this is true, better opportunities don't always equal a better life. A child living in the countryside may not be able to go to a private institution to learn, **but** they can still teach themselves all they need to know. **Overall**, raising kids is something that should be taken seriously. Parents should take as many factors into account before deciding what kind of life they want their children to have.

Figure 4. 14. First Stage of Analysis of Metadiscourse Markers on MAXQDA

It is a fact that the environment children grow up in play a major role in their development, especially when they are younger. **Therefore**, there are huge differences between how children living in the countryside or a large city behave. In my opinion, living in the countryside would be more beneficial to children than living in the city. **To start off**, being in touch with the nature would help them understand not only the world around them but also themselves. It is absolutely vital for small children to live in a place that is natural for them to develop self-consciousness **and** gain awareness about the planet they are on. **That way**, they will grow up to be mindful citizens that care about the issues related to the environment. **In addition**, the countryside is quieter and calmer than the city. **This would mean** a less stressful life for both the child and parents **as** there would be minimal risk factors. **Because** the parents are **also** less stressed out, they would be able to raise the child better as well. Some may argue that there are better opportunities for education and healthcare in big cities, **and thus** it is the better option. **Although** this is true, better opportunities don't always equal a better life. A child living in the countryside may not be able to go to a private institution to learn, **but** they can still teach themselves all they need to know. **Overall**, raising kids is something that should be taken seriously. Parents should take as many factors into account before deciding what kind of life they want their children to have.

Figure 4. 15. Categorization of Metadiscourse Markers on MAXQDA

4.4.2.3. Analysis of the MDMs in Pre- While- and Post- Training Argumentative Paragraphs

After the interactive metadiscourse markers were categorized, in the third stage, the appropriacy of the interactive MDMs used by the freshmen year EFL teachers in their argumentative paragraphs were analyzed using MAXQDA (See Figure 4.16). For the analysis, the researcher of the current study and the 29-year-old female researcher (see section 4.4.2.1) worked separately and then shared their findings with each other. The inter-coder reliability, which was calculated by dividing the total number of ratings into the number of ratings in agreement (i.e., 601/634), was 95%. Later, the two researchers came together and resolved the disagreements through discussion and negotiation.

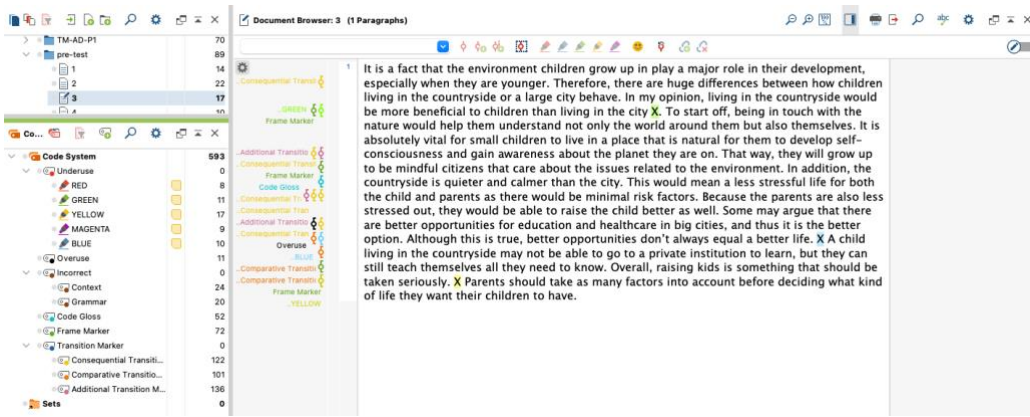


Figure 4. 16. Appropriacy Analysis of the Interactive Metadiscourse Markers through MAXQDA

The raters analyzed the interactive metadiscourse markers and categorize them into four groups which are (1) correct use, (2) incorrect use, (3) overuse and (4) underuse (Figure 4.17).

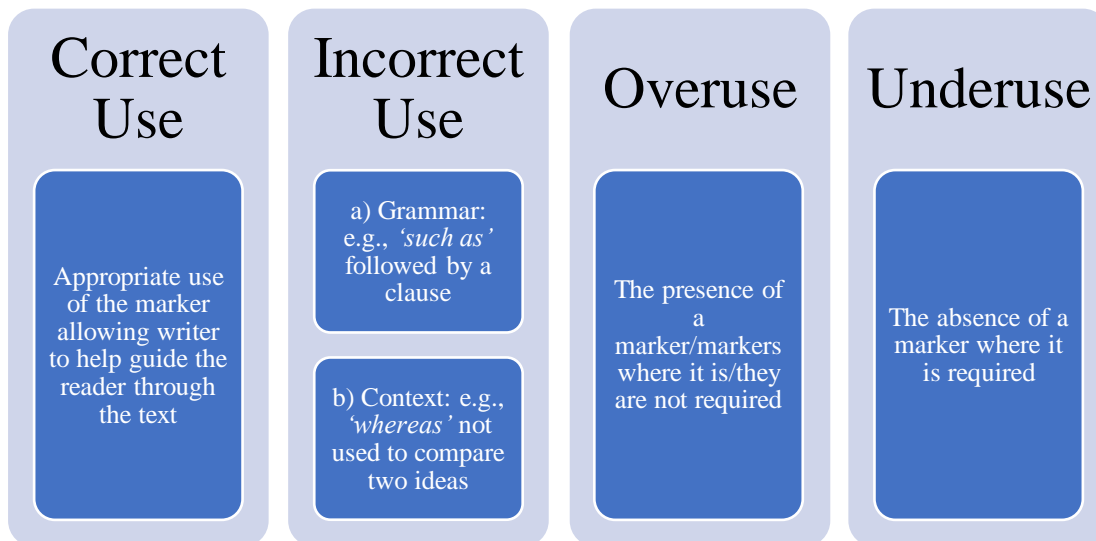


Figure 4. 17. Categorization of the Interactive Metadiscourse Markers in terms of Appropriacy

The interactive metadiscourse markers were categorized as *correct use* when they were used appropriately to allow the writer to help guide the reader through the text. In example 4, it can be seen that 'although' is used to contrast ideas and it is followed by a full sentence as it should.

Example 4. 2. Correct Use of Interactive Metadiscourse Markers (Student sentence, Participant 6)

Although living in rural areas today is an excellent option for the physical and spiritual development of children, this is not possible due to the conditions of modern life.

The MDMs were categorized as incorrect use either in terms of grammar or context. Incorrect use of an MDM in terms of grammar refers to writer's not meeting the syntactical requirement of the MDM. In example 5, '*despite*' is followed by a full sentence whereas it should be followed by a clause. Incorrect use of an MDM in terms of context refers to writer's not being able to organize the discourse. In example 6, '*even if*' is used to reveal a conditional meaning while it should be used to contrast ideas.

Example 4. 3. Incorrect Use of Interactive Metadiscourse Markers in terms of Grammar (Student sentence, Participant 2)

Despite Internet has done some many good things the social community, we should look every information that we see in a concerning way due to the common use.

Example 4. 4. Incorrect Use of Interactive Metadiscourse Markers in terms of Context (Student sentence, Participant 4)

Even if the student fails a course, his / her stay at the university will be longer.

The MDMs were categorized as overuse when an MDM is used where it is not required. In example 7, '*so*' is used together with 'if I need to simplify my opinion'; however, its presence does not add any discursal meaning. Therefore, it is not required.

Example 4. 5. Overuse of Interactive Metadiscourse Markers (Student sentence, Participant 2)

So, if I need to simplify my opinion, children in early ages should grow in countryside but not till the adulthood.

The MDMs were categorized as underuse when the presence of an MDM was required but it was absent. In example 8, there is a contrastive relation between the

first (1) and the second (2) sentences. That is why, an MDM is required between that to relate these sentences and point out contrastive relation.

Example 4. 6. Underuse of Interactive Metadiscourse Markers (Student sentence, Participant 7)

(1) Even if the topic is not something I am quite familiar with, my interest grows when there is a discussion about it. X (2) I do not think I could say the same thing about lectures.

4.4.2.4. Statistical Analyses of the Frequencies of the MDMs

The present study aimed at finding out the short- and long-term effect of DDL on freshmen pre-service EFL teachers' use of interactive metadiscourse markers in their argumentative paragraphs. That is why, after the interactive metadiscourse markers which have metadiscoursal value were categorized into subgroups according to Hyland's (2005) interpersonal model of Metadiscourse and were analyzed in terms of their appropriacy through MAXQDA, the output was exported as a Microsoft Excel file and the number of occurrences of the interactive metadiscourse markers in pre-, while-, and post- tests were found out. Moreover, since the total number of words were different for each participant in each test, the relative frequency analyses were run via Microsoft Excel to find out the number of occurrences of these markers per 100 words.

In order to find out whether DDL has proved to be effective in the short term, the relative frequencies of the interactive metadiscourse markers used by the participants in their pre-tests were compared with their while-tests statistically by using Wilcoxon matched-pairs signed-ranks test. It is the non-parametric alternative for the paired samples T-Test (Martin and Bridgmon, 2012) and since only 7 participants took part in the present study and their uptake from the interactive metadiscourse marker instruction may vary, it was decided to conduct a non-parametric test.

Finally, to discover if the student specific and data driven training on MDMs was overall successful, the frequencies of specific interactive metadiscourse markers

employed by the freshmen pre-service EFL teachers in their pre-test were compared to their post-test. Wilcoxon matched-pairs signed-ranks Test were again run for the statistical analysis.

4.4.3. Analysis of Student Diaries, Progress and Post Surveys and Semi-Structured Interviews with Stimulated Recall Sessions

The present study was longitudinal in nature. Thus, being aware of the participants' progress and having in-depth insight into their attitudes towards the training, materials and the MDM use was significant. Hence, while the student-specific and data driven MDM training was in progress, they were also asked to keep diaries and take part in two online progress surveys. Furthermore, upon collection and analysis of the main data, follow-up interviews and an online post-survey were also conducted to gain a deeper understanding of the effect of data driven learning methodology on the freshmen year pre-service English language teachers' use of MDMs in their English argumentative paragraphs and the possible reasons to explain its effect(s).

The replies of the participants to their diaries and open-ended questions in the online surveys were exported to MAXQDA for coding separately. The 5-point Likert-scale items' mean scores were computed via formulas on Microsoft Excel. Follow-up interviews were transcribed verbatim. Then, the data were coded by the researcher via MAXQDA. The analysis of the data from these resources revealed participants' attitudes towards the effect of trainings.

CHAPTER 5

RESULTS AND DISCUSSION

In this chapter, the findings of the current research are presented and discussed. In the first section lexical statistics and the overall distribution of interactive metadiscourse markers in pre-, while- and post- training argumentative paragraphs are demonstrated to gain a general insight of the findings. The second section focuses on participants' use of these devices in their pre-training argumentative paragraphs in terms of frequency, variety and appropriacy. In addition, it presents the problems freshmen pre-service English language teachers had experienced prior to 5-week student specific data driven interactive metadiscourse marker training. Third and fourth sections reveal the immediate and long-term effects of this training as well as unveiling the reasons why the participants employed/avoided some of these devices and presenting their attitudes towards the training by exploring the qualitative data.

5.1. Lexical Statistics and Overall Distribution of Transitions, Frame Markers and Code Glosses in Pre, While- and Post- Training Argumentative Paragraphs

Table 5.1 summarizes the lexical statistics of the pre- while- and post- training argumentative paragraphs written by the freshmen pre-service English language teachers and the occurrences of interactive metadiscourse markers (i.e., transitions, frame markers and code glosses) in these paragraphs.

When the total number of words in the argumentative paragraphs written for the while-tests are investigated, it can be seen that the word count fluctuates among five paragraphs. However, the total number of words for pre- and post- training paragraphs, whose topics were almost the same, were quite similar. Therefore, this

situation can be explained by the different tasks the participants were required to write each week.

Table 5. 1. Total and Average Number of Words, and Interactive MDMs Employed in the Argumentative Paragraphs

	Pre-Test	TM-AD-P1	TM-COM-P1	TM-CON-P1	FM-P1	CDG-P1	Post-Test
Total # of words	1524	1185	1281	1175	1313	1267	1598
Avg. # of words per paragraph	217	169	183	167	187	181	228
Tokens	443	404	411	426	419	384	445
Lexical density	29%	34%	32%	36.2%	31.9%	30%	27.8%
Total Interactive MDMs	81	65	75	71	84	75	79
MDMs per 100 words	5.31	5.4	5.8	6	6.3	5.9	4.94

When it comes to the lexical density, similar to the word count, the percentage fluctuates again among different argumentative paragraphs. Still, it can be observed that all the while-training argumentative paragraphs of the participants are lexically denser than their pre-training argumentative paragraphs. This may mean that as they were learning how to use interactive metadiscourse markers, they might have used more variety of such devices and/or other vocabulary items since they were exposed to more examples (i.e., corpus-informed example sentences and paragraphs) in the same genre and they were having an intense training on writing. Furthermore, the fluctuation among the while-training argumentative paragraphs could be explained by the relevant vocabulary knowledge of the participants on the different writing topics and the type of interactive metadiscourse marker which was focused on that week. For example, TM-CON-P1 paragraphs look lexically denser than TM-AD-P1 paragraphs and this might mean that for the former the participants used more variety of consequential transition markers and/or used more variety of vocabulary items than the latter. On the other hand, when the lexical density in post-training argumentative paragraphs is examined, it can be observed that the lexical density got slightly less than the pre-training argumentative paragraphs. This might mean that although the topics were quite similar, the participants wrote their post-training argumentative paragraphs in a more repetitive fashion.

Regarding the interactive metadiscourse marker use of the participants, when the normalized frequencies (i.e., MDMs per 100 words) are observed, it can be seen from Table 5.1. that the participants used more MDMs in their while-training argumentative paragraphs than their pre-training argumentative paragraphs. Hence, in order to find out whether there was a significant rise in the means of interactive MDMs in pre- and while- tests, 5 Wilcoxon matched-pairs signed-ranks tests were run. The analyses revealed that this increase was not statistically significant (Table 5.2).

Table 5. 2. Wilcoxon Matched-Pairs Signed-Ranks Test Results for Pre- and While- Paragraphs

PARAGRAPHS	N	Z	P
Pre-test – TM-AD-P1	7	-0,16	0,86
Pre-test – TM-COM-P1	7	-0,50	0,61
Pre-test – TM-CON-P1	7	-0,33	0,73
Pre-test – FM-P1	7	-1,35	0,17
Pre-test – CDG-P1	7	-0,08	0,93

Contrary to the increase in the relative frequencies of the interactive MDMs in their while-training argumentative paragraphs, the participants utilized slightly less MDMs in their post-training argumentative paragraphs than their pre-training paragraphs. To find out whether there was a significant decline in the means of interactive MDMs in their pre- and post- tests another Wilcoxon matched-pairs signed-ranks test was run. The analysis demonstrated that it was not a statistically significant decrease ($Z = -0.67$, $P = .49$).

When the frequencies of the interactive MDMs in the seven argumentative paragraphs of the participants of the current study were compared to the studies that focus on the academic writings of L2 English novice writers in the literature, it was found that the frequencies of these markers vary a lot among different studies. Ho and Li (2018) researched on the use of metadiscourse markers of 181 Chinese freshmen university students by investigating their timed argumentative essays. The relative frequency (per 1000 words) of the interactive metadiscourse markers used in that study was 30.1. Similarly, Qin and Uccelli (2019) studied 352 EFL learners’ use of metadiscourse markers in academic writing and reported that the number of occurrences of interactive MDMs per 1000 words was 25.4. On the other hand, the

participants of the current study utilized 53.1 interactive MDMs in their pre-training argumentative paragraphs, 54.8, 58.5, 60.4, 63.9 and 59.1 interactive MDMs in their while-training paragraphs respectively and 49.4 interactive MDMs in their post-training paragraph per 1000 words. Also, Rustipa (2014) who worked on the metadiscourse marker use of the seven Indonesian EFL learners in their timed persuasive writings found that the relative frequency of the interactive MDMs was 55.04 which is quite similar to the finding of the current study.

Moreover, Yüksel and Kavanoz (2018) compared the use of metadiscourse markers of Turkish intermediate level L2 speakers of English to the native speakers' use of such markers by using two reference corpora: British Academic Written English (BAWE) and British National Corpus (BNC). BAWE corpus was limited to essays of freshmen and sophomore students in arts and humanities genre. BNC corpus was limited to books and periodicals of monolingual English speakers in social sciences and arts and humanities fields. They found that Turkish L2 speakers used more interactive MDMs (68.04% per 1000 words) than BAWE (35.9%) and BNC (57.2%). Similarly, Sancak (2019), who focused on the interactive metadiscourse marker use of intermediate level Turkish EFL learners, reported that her participants used 63.1% and 76.1% interactive MDMs in their pre- and post-training opinion paragraphs. Therefore, it can be said that Turkish EFL learners tend to use interactive MDMs more frequently than other EFL learners.

Furthermore, both BAWE and BNC corpora in the study of Yüksel and Kavanoz (2018) contained writings of L1 English speakers, but the genre of the writings and the background of the writers were quite different from each other, that may explain why the frequencies of the interactive MDMs were not similar to each other. Thereof, containing essays in the argumentative genre written by L2 English speakers of different L1 backgrounds and being the reference corpus of the current study, TOEFL-High corpus (see section 4.4.1.) was examined in terms of the frequency of interactive MDMs and it was found out that these devices accounted for 44.3% per 1000 words, which is lower than the frequency of these devices in the current study.

Considering the discrepancy among the frequencies of interactive metadiscourse markers in the literature, deciding whether the participants of the current study employed the ‘right’ amount of these devices seems impossible. However, it can be inferred that they used these devices fairly frequently.

5.2. The Frequency and Appropriacy of the Interactive Metadiscourse Markers in Freshmen Pre-Service English Language Teachers’ Pre-Training Argumentative Paragraphs

This section scrutinizes how frequently (Table 5.3) and how appropriately (Table 5.4) freshmen pre-service English language teachers employed transitions, frame markers and code glosses in their pre-training argumentative paragraphs and accentuates the problems they had experienced in using these devices prior to the student specific and data driven interactive MDM training.

Table 5. 3. Descriptive Statistics of Interactive MDMs in Participants’ Pre-Training Paragraphs

	TM-AD		TM-COM		TM-CON		FM		CDG		TOTAL(T)		Words
	f	%	f	%	f	%	f	%	f	%	f	%	
1	6	3.35	2	1.11	4	2.23	0	0	2	1.11	14	7.82	179
2	6	1.48	3	0.74	9	2.23	0	0	2	0.49	20	4.96	403
3	3	1.10	2	0.73	5	1.84	3	1.10	1	0.36	14	5.16	271
4	2	1.16	1	0.58	4	2.32	0	0	2	1.16	9	5.23	172
5	0	0	4	2.22	5	2.77	2	1.11	0	0	11	6.11	180
6	0	0	2	1.37	4	2.75	0	0	0	0	6	4.13	145
7	1	0.57	1	0.57	0	0	3	1.72	2	1.14	7	4.02	174
T	18	1.18	15	0.98	31	2.03	8	0.52	9	0.59	81	5.31	1524
M	2.57	-	2.14	-	4.42	-	1.14	-	1.28	-	11.57	-	217.71
%	22.22		18.51		38.27		9.87		11.11		100		-

As it can be seen from table 5.3., among 81 interactive metadiscourse markers used by the participants, they mostly utilized transition markers (79%). When this finding is compared with the existing literature on L2 metadiscourse studies, it is found that among the categories in interactive metadiscourse markers transitions are used most frequently (e.g., Hyland and Tse, 2004; Chan & Tan, 2010; Anwardeen et al., 2013; Dobbs, 2014; Mohamed & Rashid, 2017; Ho & Li, 2018; Yüksel &

Kavanoz, 2018; Qin & Ucelli, 2018; Sancak, 2019). Hyland and Tse (2004) argue that it is indeed essential since expressing the connections between what is written is the key in academic writing genre and doing so enables “readers to recover their reasoning unambiguously” (Hyland and Tse, 2014, p. 170). In the same vein, the participants of the current study were asked to write an argumentative paragraph in which they were required to choose one side of the argument and explain their reasoning throughout their paragraphs to convince their readers. Hence, since transition markers function as a resource for the readers to comprehend the connections between the writer’s arguments (Hyland, 2005), transition markers’ being the most frequently employed form of interactive MDMs sounds reasonable.

In addition, when the category of transition markers is investigated in more detail, being consistent with Sancak (2019), it is witnessed that among three subcategories, consequential transition markers account for the highest proportion (38.27%) followed by additional transition markers (22.22%) and comparative transition markers (18.51%) respectively. This might indicate that the participants mostly preferred to justify their argument as an assurance strategy. However, participant 1 who preferred to use additional transition markers the most deviates from this finding. This might be due to his/her preference in adding more elements to their argument strategy while conveying his/her message. Also, Comparative transition markers’ being the least frequent category of transition markers is not surprising, when the literature is investigated since Chan and Tan (2010), Andwardeen et. al. (2013) and Asassfeh et.al (2013) who investigated metadiscourse marker use in argumentative genre reported similar findings about comparative transition markers. This finding also attests to genre-specific decision on the use of metadiscourse markers (Adel, 2006, p.58).

Participants 5,6 and 7 were found not to use at least one sub-category of transition markers. To illustrate, participant 5 and 6 used no additional transition markers, whereas participant 7 did not use any consequential transition markers. Moreover, it was also observed that participant 7 used just two transition markers, which is inadequate when compared to the mean of the frequencies in Table 5.3. Hence, when the importance of using transition markers in argumentative genre is taken

into consideration, it was concluded that the participants needed further support in using transition markers. Thus, the student specific training was required to focus on raising their awareness about the significance of these devices as well as explaining how to employ them.

The second most frequently employed category by the participants was code glosses (11.11%) followed by frame markers (9.87%). In the literature on L2 metadiscourse marker use, unlike transition markers, for the frequency of the use of code glosses and frame markers there is not a consensus. Sancak (2019) reported that her participants used more frame markers (27%) than code glosses (11%). However, Heng and Tan (2010) worked with Malaysian freshmen undergraduate L2 English learners who were enrolled in a writing course and compared their argumentative essays to the sub-corpus that they compiled by the extracts from BAWE corpus that contained argumentative essays written by category 1 undergraduates in terms of metadiscourse marker use and found out that code glosses were utilized more frequently (11.3% in BAWE sub-corpus and 9.4% among the participants) than frame markers (3.1% in BAWE sub-corpus and 7.8% among the participants). Similarly, Rustipa (2014) studied with freshmen year EFL learners and found out that her participants employed code glosses (12%) more frequently than frame markers (4%). In an argumentative writing genre, it is essential for writers to make sure their intention of proposing something is conveyed thoroughly to their readers through examples and/or explanations (Hyland and Tse, 2004). Thus, the participants of the current study might have prioritized making their paragraphs as clear as possible to organizing the boundaries of their arguments, which necessitates the use of frame markers.

Yet, when table 5.3 is examined in more detail, in terms of participants' use of frame markers and code glosses, it can be observed that participants 1,2,4 and 6 did not use any frame markers and participants 5 and 6 did not employ any code glosses in their pre-training argumentative paragraphs. According to Rustipa (2014) inadequate use of frame markers might result in unorganized arguments which may lead to writing less cohesive texts. Moreover, Qin and Uccelli (2019) propose that the use of code glosses in academic writing is important since the writers are

expected to restate, exemplify, and explain their arguments for their readers. Therefore, these findings indicated that the participants of the current study needed assistance regarding employing frame markers and code glosses more frequently in their argumentative paragraphs and raising awareness about their importance.

Table 5. 4. Forms, Frequency and Appropriacy of Interactive MDMs in Pre-Paragraphs

Interactive MDMs	f	%	IU (G)	IU (C)	OU	UU
Additional Transition Markers						2
and	14	21.87	-	-	2	
also	2	3.12	-	-	-	
besides	1	1.56	-	-	-	
in addition to	1	1.56	-	-	-	
Comparative Transition Markers						1
but	7	10.93	-	-	-	
although	2	3.12	-	-	-	
however	2	3.12	-	-	-	
while	2	3.12	-	-	-	
compared to	1	1.56	-	-	-	
on the other hand	1	1.56	-	-	-	
Consequential Transition Markers						2
because	6	9.37	3	-	-	
as	3	4.68	-	-	-	
because of	3	4.68	-	-	-	
due to	3	4.68	-	-	-	
since	3	4.68	-	-	-	
so	3	4.68	-	-	-	
for	2	3.12	-	-	-	
in order to	2	3.12	1	-	-	
therefore	2	3.12	-	-	-	
thus	2	3.12	-	-	-	
that way	1	1.56	-	-	-	
to	1	1.56	-	-	-	
Frame Markers						1
another reason would be	1	12.5	-	-	-	
I have several reasons for	1	12.5	-	-	-	
in addition	1	12.5	-	-	-	
one of them being	1	12.5	-	-	-	
overall	1	12.5	-	-	-	
to conclude	1	12.5	-	-	-	
to start off	1	12.5	-	-	-	
when it comes to	1	12.5	-	1	-	
Code Glosses						3
this means	2	22.22	-	-	-	
for example	1	11.11	-	1	-	
I'd like to give an example	1	11.11	-	-	-	
if I need to simplify my opinion	1	11.11	-	-	-	
it doesn't mean	1	11.11	-	-	-	
like	1	11.11	-	-	-	
the other example is	1	11.11	-	1	-	
this would mean	1	11.11	-	-	-	

When table 5.4. is examined, it can be witnessed that the most frequent forms of transition markers used in participants’ pre-training argumentative paragraphs were ‘and’ for addition (21.87%), ‘but’ for comparison (10.93%) and ‘because’ for consequence (9.36%) and together they represented 42.16% of the transitions. This finding is not surprising since several other studies that focused on metadiscourse in writing also pointed out that those three forms of transition markers were used the most frequently (Martinez, 2002; Anwardeen et al., 2013; Ho & Li, 2018; Yüksel & Kavanoz, 2018; Dumlao & Wilang, 2019; Qin & Ucelli, 2019; Sancak, 2019). According to Ho and Li (2018) the reason behind this phenomenon could be their “simplicity and thus ease of use” (p. 57).

On the other hand, when the variety of interactive MDMs in TOEFL-High corpus and participants’ pre-training paragraphs are compared, it was revealed that they employed very limited forms of interactive MDMs (Figure 5.1). Therefore, it was decided that they needed to be exposed to a more variety of these devices.

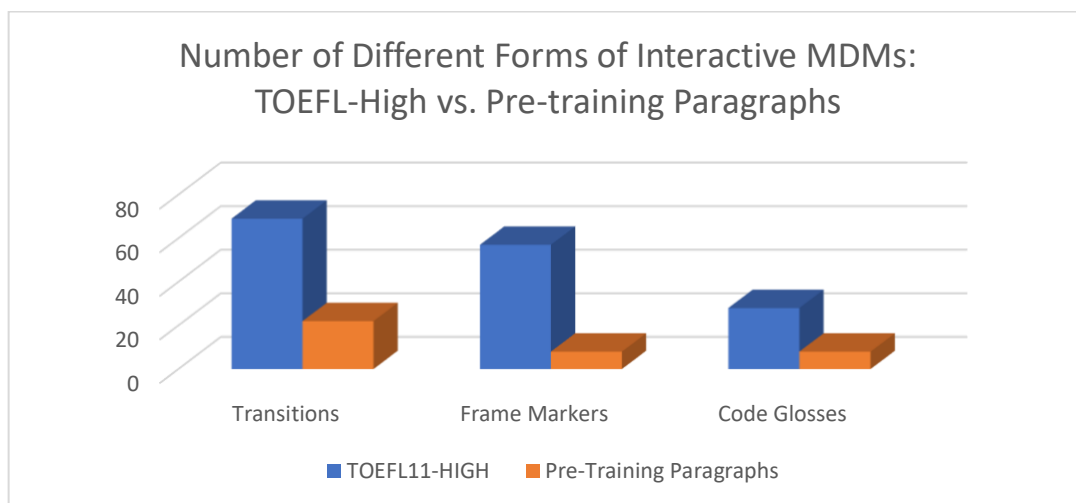


Figure 5. 1. Number of Different Forms of Interactive MDMs in TOEFL11-HIGH and Pre-training Paragraphs

When table 5.4 is analyzed in terms of (in)correct use of interactive MDMs employed by the participants, it can be observed that they mostly went through the problem of underusing these devices as they seemed to underuse each category of interactive MDMs. It means that they did not utilize these markers when they were

needed which resulted in not being able to convey their messages to their reader (Example 5.1).

Example 5. 1. Underuse of an Additional TM in Pre-Training Paragraphs (Student Paragraph, Participant 4)

(1) People need to live with nature on way or another, so countryside kids have a superiority for that since they are together with nature all day. X (2) They learn how to be friends easily compared to kids that live in large cities.

In example 5.1, the first sentence proposes one advantage of living in the countryside and the second one puts forward another benefit of the argument. Therefore, an additional TM such as *'also'* or *'what is more'* was needed at the beginning of the second sentence and the absence of it distorts the cohesion of the paragraph.

The second problem freshmen pre-service English language teachers encountered was using these devices incorrectly in terms of either grammar or context (Examples 5.2 and 5.3).

Example 5. 2. Incorrect of Use of 'because' Grammatically in Pre-Training Paragraphs (Student Paragraph, Participant 2)

(1) I do not agree with this statement. (2) **Because** both of them has its pros and cons together.

In this example, it is seen that the syntactic usage of because is violated since it is a subordinate clause that needs to be linked with the main clause to form a full grammatical sentence. Thus, it was used grammatically incorrect.

Example 5. 3. Incorrect of Use of 'the other example is that' Contextually in Pre-Training Paragraphs (Student Paragraph, Participant 4)

The other example is that I think children should be in an environment where they feel they are more united with their age groups.

In example 5.3, participant 4 intended to propose another point to make her argument more convincing. However, s/he employed *'the other example is that'*

that indicates an example to be given for the proposition made. Therefore, contextually it was used incorrectly.

The participants also had the minor problem of overusing some devices that led to incoherency.

Example 5. 4. Overuse of ‘and’ in Pre-Training Paragraphs (Student Paragraph, Participant 3)

Some may argue that there are better opportunities for education and healthcare in big cities, **and thus** it is the better option.

In example 5.4, participant 3 employed ‘and’ and ‘thus’ right next to each other, but his/her argument only required a cause-and-effect relationship that can be conveyed through ‘thus’ alone. Therefore, the use of ‘and’ was redundant and it caused incoherency.

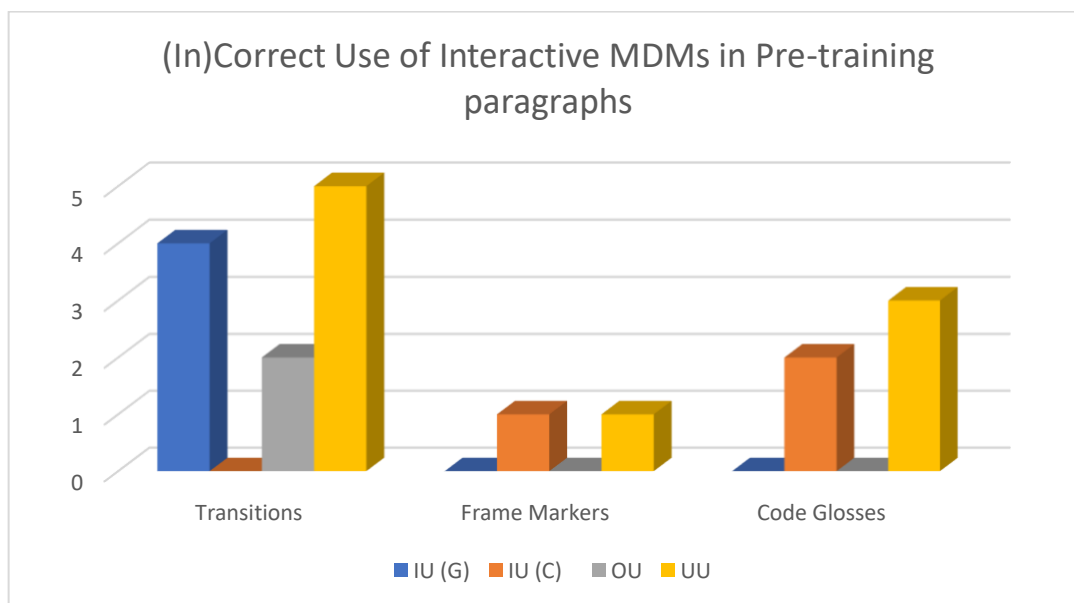


Figure 5. 2. Distribution of (In)correct Use of MDMs in Pre-Training Paragraph

Figure 5.2 demonstrates that the participants mostly experienced underuse, grammatically incorrect use, and overuse problems respectively while using transitions. While employing frame markers and code glosses, they again mostly struggled with the problem of underuse. Also, they employed some of these devices contextually incorrectly, too.

Taking everything into consideration, it was concluded that the participants of the current study required help regarding the quality of interactive MDMs they employed, instead of the quantity. Therefore, the student specific data driven trainings were oriented towards assisting them to employ more variety of interactive metadiscourse markers and to use these devices correctly. Moreover, it was also necessary to raise their awareness on the significance of interactive MDMs to solve the problem of underusing these devices.

5.3. The Immediate Effect of DDL on the Use of Interactive Metadiscourse Markers in Freshmen Pre-Service English Language Teachers' Argumentative Paragraphs

This section deals with the short-term effect of data-driven learning methodology on the use of interactive MDMs in the argumentative paragraphs of pre-service English language teachers. As the participants received training in this regard through corpus-informed materials specifically for their own needs for five weeks, the immediate effect of each training on different categories of interactive MDMs are explored in five sub-sections. Furthermore, the results of the two progress surveys, which aimed at obtaining profound findings about participants' attitudes towards the trainings and their progress, are also elaborated in this section.

5.3.1. The Immediate Effect of DDL on the Use of Additional Transition Markers in Freshmen Pre-Service English Language Teachers' Argumentative Paragraphs

In this section, the short-term effect of data-driven learning method with student specific corpus-informed materials on additional transition marker use of freshmen pre-service English language teachers in their argumentative paragraphs is investigated.

Table 5.5. demonstrates how frequently each participant employed additional transition markers in their pre- and first while tests (i.e., TM-AD-P1). Accordingly,

it is observed that except from participant 1 and participant 4, the occurrences of these devices tended to be more frequent after the training on additional TMs.

Table 5. 5. Comparison of the Frequencies of Additional TMs in Pre- and TM-AD-P1 Tests

ID	Pre-Training Argumentative Paragraphs			TM-AD-P1		
	Additional Transition Markers					
	f	%	Tokens	f	%	Tokens
1	6	3.35	179	4	3.13	128
2	6	1.48	403	6	2.61	230
3	3	1.10	271	6	3.87	155
4	2	1.16	172	0	0	135
5	0	0	180	2	1.30	154
6	0	0	145	3	1.55	193
7	1	0.57	174	4	2.11	190
	18	1.18	1524	25	2.10	1185

Moreover, it can be seen that participants 5 and 6 who had not employed any additional TMs in their pre-training paragraphs used them after the training. To test whether this increase was significant, a Wilcoxon matched-pairs signed-ranks test was run. However, the statistical tests demonstrated that it was not significant ($Z = -1.69$, $P = .09$). Yet, it should be noted that frequency of additional TMs had not been a problem for the participants of the current study. Instead, they needed help in using a more variety of these devices. That is why, in the corpus informed student specific training they were asked to analyze the concordance lines of ‘*moreover*’, ‘*in addition*’, ‘*in addition to*’, ‘*furthermore*’, ‘*besides*’, and ‘*apart from*’ (Table 5.6.) and discover these devices’ correct usage both grammatically and contextually.

Table 5. 6. The Frequencies of the Forms of Additional TMs in the Teaching Material on TOEFL-High Corpus

Forms	f	rf *
And	16126	1.04
Also	4098	0.26
Moreover	559	0.03
In addition (to)	363	0.02
Furthermore	344	0.02
Besides	185	0.01
Apart from	39	0.002

* rf = relative frequency (per 1000 words)

The reason why these devices were chosen was because they were the most frequent additional transition markers found in TOEFL-High corpus that contained 1538120 tokens in total after ‘and’ and ‘also’, which already occurred in more than one participant’s pre-training argumentative paragraph; thus, was not included in the teaching material.

Table 5.7 demonstrates that after the instruction, the participants of the current study employed a more variety of these devices and from the teaching material, the participants employed ‘furthermore’ and ‘in addition to’. However, the over-reliance of ‘and’ among the participants persisted.

Table 5. 7. Forms, Frequency and Appropriacy of Additional TMs in Pre- and TM-AD-P1 Tests

Pre-Training Paragraphs	F	%	IU (G)	IU (C)	OU	UU
Additional TMs						2
and	14	21.87	-	-	2	
also	2	3.12	-	-	-	
besides	1	1.56	-	-	-	
in addition to	1	1.56	-	-	-	
Total	18	28.12	-	-	2	2
TM-AD-P1	f	%	IU (G)	IU (C)	OU	UU
Additional TMs						2
and	19	37.25	1	1	2	
adding to that	1	1.96	-	-	-	
also	1	1.96	1	-	-	
even	1	1.96	-	-	-	
furthermore	1	1.96	-	-	-	
in addition to	1	1.96	-	-	-	
or	1	1.96	-	-	-	
Total	25	49.01	2	1	2	2

Martinez (2002) and Chan and Tan (2010) suggest that this might be due to the syntactic and semantic ease of use of ‘and’. Therefore, to understand the reason why, the participants who particularly employed ‘and’ a lot were asked to elaborate on their preference during the post-interview. It was found out that the reason behind their over-reliance of ‘and’ indeed stemmed from its convenience:

“Because it is easy to use, it is not troublesome, and it just connects [the sentences]. It has a practical and easy usage. (*Çünkü kullanımı kolay, zahmetli değil, hemen bağlıyor. İyi ve basit bir kullanımı var*)” (Participant 5).

When it comes to the (in)correct use of additional TMs, it is witnessed that the problem of underusing these devices (Example 5.5. & Example 5.6.) and overusing ‘and’ (Example 5.7. & Example 5.8.) persisted.

Example 5. 5. Underuse of an Additional TM in TM-AD-P1 (Student Sentence, Participant 4)

(1) Thanks to internet, we constantly got news from all over the world X (2) We joined online classes that helped us to improve ourselves even though we were having tough times globally.

Example 5. 6. Underuse of an Additional TM in TM-AD-P1 (Student Sentence, Participant 5)

We, human beings, started to compare ourselves with the others X tried to be look cooler and better.

Both in example 5.5 and 5.6, the participants mentioned two different arguments. For instance, participant 4 stated getting news and online classes as two benefits of the internet. However, s/he had not used an additional transition marker to indicate that an additional proposition was going to be made, which caused confusion in conveying their messages.

Example 5. 7. Overuse of ‘and’ in TM-AD-P1 (Student Sentence, Participant 1)

As an adult we use phones, computers in our daily life even though we know its effects which causes a serious damage but we still use it than think of a child, curious about everything and they start to grow in this filthy world and don’t know how to use it right

In example 5.7, ‘and’ was overused because the arguments before and after ‘and’ are not different arguments that are added together. Instead, they both specify ‘a child’.

Example 5. 8. Overuse of ‘and’ in TM-AD-P1 (Student Sentence, Participant 6)

For example, thanks to the mail system, very urgent documents can be accessed. And in addition to this example, although we are far from the school, we can immediately request the required documents from the school thanks to the mail system.

In example 5.8, *'and'* and *'in addition to'* were used adjacent to each other while participant 6 wanted to make an addition to his/her example. Yet, s/he could have done it without *'and'*. That is why *'and'* was a case of overuse.

Furthermore, whereas participants did not use *'and'* or *'also'* incorrectly in the pre-training test, they did so both grammatically and contextually in TM-AD-P1 (Example 5.9., Example 5.10. & Example 5.11).

Example 5. 9. Incorrect Use of *'and'* Grammatically in TM-AD-P1 (Student Sentence, Participant 6)

Unfortunately, many students do not have access to the internet in Turkey **and** staying back from training.

Participant 6 used *'and'* incorrectly because syntactically *'and'* links parallel structures. However, while s/he used a full sentence before *'and'* s/he used a gerund structure after it.

Example 5. 10. Incorrect Use of *'also'* Grammatically in TM-AD-P1 (Student Sentence Participant 5)

The fact that the internet has added many useful things to our life can't be thrown away, sure it has affected us in a good way. However; it has some negative effects **also**.

Participant 5 employed *'also'* incorrectly in terms of its place in the sentence. Although it has to be in the sentence initial position or preceded by the verb, it was used at the end of the sentence.

Example 5. 11. Incorrect Use of *'and'* Contextually in TM-AD-P1 (Student Sentence, Participant 1)

(1) In addition, they go straight to play games and addict to them (2) sure this is a specific example, but it is true **and** (3) without children being taught how to use Internet negative sides will always overcome positive

In example 5.11, participant 1 formed an additional relationship between the second and the third sentences by employing *'and'*; however, it can be seen that the third

sentence actually is the result of the previous sentence. That is why, ‘and’ was contextually incorrect.

According to Algi (2012) and Uluçay (2014) negligence might play a role in EFL learners’ incorrect use of these markers. In fact, when participant 5, who used ‘also’ grammatically incorrect, was asked in the post interview why it was wrong, s/he could successfully spot the mistake and correct it. S/he also pointed out: “most probably, because while writing I do not think about grammar much, I wrote as I thought, but I can see my mistake (*Büyük ihtimalle düşünürken grameri pek düşünmediğim için direkt düşündüğüm gibi yazmışım ama görebiliyorum yani hatamı*)” (Participant 5, post interview). Hence, when the overall proficiency level of the participants of the current study and the limited time they wrote their argumentative paragraphs in are taken into consideration, writing their paragraphs in a careless way might have resulted in making these mistakes that they had not made before. Nevertheless, the participants were provided with indirect corrective feedback to be aware of their mistakes and work on them individually.

Table 5. 8. Frequency Distribution of the Themes in Diary 1

Themes	f
Change in Attitude towards Writing	
Yes	2
No	5
Suitability of the Method of the Training	
Yes	7
No	0
Application of the Knowledge	
Yes	7
No	0
Feeling During the Training	
Positive Feeling	5
Negative Feeling	2
Learning	
Not New	6
Partially New	1
Completely New	0

When it comes to the analysis of the participants first diaries (Table 5.8), which they wrote right after the trainings, it was observed that most of them did not experience any change in their attitude towards writing. Yet, it was because they

had been already enthusiastic about writing and stated that their interest did not change.

Moreover, with the suitability of the training in terms of its methodology, none of them had problems and they all agreed that they would use the information they learnt that day in their future writings. While almost all of them felt positive during the class, two of them experienced negative feelings due to the time of the training, which the researcher did not have any control of. The participants who had a positive feeling mentioned that they were “happy, curious and enthusiastic”.

Finally, except from one participant who explained: “I’ve learned how to write an essay properly. It wasn’t completely new to me, but I’ve learned so many new things” (Participant 1), all the other participants expressed that the material they had learnt was not new for them. However, participant 4 have also added that the training made his/her more aware about the targeted devices: “I have learnt that using thus in a sentence does not have the same function as moreover or besides”. Also, participant 5 clarified that s/he had a chance to remember his or her old knowledge: “I learned the functions of some conjunctions and I have already known them, but it was great to come back and see them again”.

Overall, the quantitative findings on the short-term effect of additional transition markers training demonstrated that the freshmen pre-service English language teachers employed more additional markers in both quantity and variety. Moreover, they used the markers in the teaching material without any problems, but they tended to misuse the forms that they previously used correctly, which might be due to being careless while writing. The qualitative findings showed that the participants had a positive attitude towards writing in general, the course content and their uptake from the training. Hence, it can be concluded that in the short-term, the student specific and data driven additional transition marker training achieved its aim of employing more variety of the forms of additional transition markers.

5.3.2. The Immediate Effect of DDL on the Use of Comparative Transition Markers in Freshmen Pre-Service English Language Teachers' Argumentative Paragraphs

In this section, the short-term effect of data-driven learning method with student specific corpus informed materials on comparative TM use of freshmen pre-service English language teachers in their argumentative paragraphs is investigated.

Table 5. 9. Comparison of the Frequencies of Comparative TMs in Participants' Pre- and TM-COM-P1 Tests

ID	Pre-Training Argumentative Paragraphs			TM-COM-P1		
	Comparative Transition Markers					
	f	%	Tokens	f	%	Tokens
1	2	1.11	179	4	2.86	140
2	3	0.74	403	6	2.11	285
3	2	0.73	271	2	1.11	180
4	1	0.58	172	2	1.21	165
5	4	2.22	180	0	0	188
6	2	1.37	145	2	1.27	158
7	1	0.57	174	3	1.82	165
Total	15	0.98	1524	19	1.48	1281

Table 5.9 shows how frequently each participant employed comparative TMs in their pre- and second while tests (i.e., TM-COM-P1). It is seen that apart from participant 5 and participant 6, they tended to employ these devices more frequently after the training. Thus, a Wilcoxon matched-pairs signed-ranks test was run to test whether its significant. However, it turned out that the increase was not significant ($Z = -1.01, P = .31$).

Still, because the participant of the current study had not experienced any problems on employing adequate number of comparative transition markers, increasing the frequency of these devices was not the primary aim of the training. Rather, the data-driven student specific training on comparative transition markers focused on increasing the usage of more variety of these markers and helping the participants utilize them more correctly and appropriately. Hence, the participants were provided with the concordance lines of a list of comparative TMs to enable them to discover their correct use upon conducting frequency analyses in TOEFL-High corpus that contained 1538120 tokens in total (Table 5.10). Though some items

seemed less frequent than the others, they were still included with the intention of letting participants observe how similar ideas, as well as contrastive ones, are presented. Moreover, more forms are included in this training to provide the participants with more examples as comparative transition markers were the least preferred devices in the participants pre-training paragraphs.

Table 5. 10. The Frequencies of the Forms of Comparative TMs in the Teaching Material on TOEFL-High Corpus

Forms	f	rf *
but	6631	4.31
however	1856	1.20
while	1041	0.67
rather than	843	0.54
on the other hand	750	0.48
although	601	0.39
instead (of)	591	0.38
even if	463	0.30
even though	307	0.19
though	264	0.17
yet	254	0.16
whereas	241	0.15
nevertheless	178	0.11
on the contrary	124	0.08
despite	107	0.06
in contrast (to)	103	0.06
nonetheless	46	0.02
similarly	46	0.02
in the same way	41	0.02
when compared (to/with)	29	0.01
in spite of	24	0.01
still	20	0.01
likewise	17	0.01

* rf = relative frequency (per 1000 words)

Upon training, it can be observed in table 5.11 that the participants of the current study employed more variety of comparative TMs and from the teaching material, the participants employed ‘*even though*’, ‘*still*’, ‘*even if*’, ‘*in spite of*’, ‘*whereas*’, and ‘*yet*’. However, ‘*but*’ continued to be the most frequently used comparative transition marker, just like in the pre-training paragraphs. This finding is similar to Ho and Li (2008) who put forward that the overdependency of ‘*but*’ may derive from its simple use. Moreover, when participant 1 was asked about the reason why s/he employed ‘*but*’ instead of other forms with the same functions s/he explained:

I mean, now that you asked me, 'yet', 'however' come to my mind but when I am writing, I just write 'but'. The other versions are not the first to come to my mind (*Yani şimdi siz sorunca 'yet', 'however' falan geliyor aklıma ama yazarken hep but kullanıyorum. Diğerleri ilk gelmiyor aklıma*) (Participant 1)

Therefore, it can be inferred that in addition to its ease of use, another reason why participants tend to employ 'but' mostly might be due to its being the first to come to mind.

Table 5. 11. Forms, Frequency and Appropriacy of Comparative TMs in Pre- and TM-COM-P1 Tests

Pre-Training Paragraphs	f	%	IU (G)	IU (C)	OU	UU
Comparative Transition Markers						1
but	7	10.93	-	-	-	
although	2	3.12	-	-	-	
however	2	3.12	-	-	-	
while	2	3.12	-	-	-	
compared to	1	1.56	-	-	-	
on the other hand	1	1.56	-	-	-	
Total	15	23.43	-	-	-	1
TM-COM-P1	f	%	IU (G)	IU (C)	OU	UU
Comparative Transition Markers						1
but	7	10.93	-	1	-	
however	3	4.68	-	-	-	
although	2	3.12	-	-	-	
even though	2	3.12	-	-	-	
still	2	3.12	-	-	1	
even if	1	1.56	-	-	-	
in spite of	1	1.56	1	-	-	
whereas	1	1.56	-	-	-	
yet	1	1.56	-	-	-	
Total	20	31.25	1	1	1	1

For the (in)correct use of comparative TMs, it was found that the participants still experienced the problem of underusing these devices after the training (Example 5.12).

Example 5. 12. Underuse of a Comparative TM in TM-COM-P1 (Student Sentence, Participant 7)

(1) Even if the topic is not something I am quite familiar with, my interest grows when there is a discussion about it. X (2) I do not think I could say the same thing about lectures.

In example 5.12, it is seen that the arguments in the first and second sentences are contrasting. That is why, not employing a contrastive transition marker made it hard for the reader to sense this relation.

Also, similar to the incorrect uses of *'and'* and *'also'* in participants TM-AD-P1, table 5.11 shows an instance of incorrect use of *'but'* in terms of context (Example 5.15) which had not happened in their pre-training argumentative paragraphs.

Example 5. 13. Incorrect Use of *'but'* Contextually in TM-COM-P1 (Student Sentence Participant 1)

I get all bored in almost no discussion lessons because after a while it just becomes a background noise even though I don't want to, **but** I believe in our age we are more interested in talking so it is way better.

In this example, *'but'* is used contextually incorrectly because the arguments before and after *'but'* do not actually have a contrastive relation between them. Instead, the argument after *'but'* seems to be an additional argument in favor of discussion lessons. According to Zamel (1983), Cheng and Steffensen, (1996), Algi (2012) and Uluçay (2014), such instances of misuse might be due to the careless writing of the novice writers. Considering the fact that the participants of the current study were able to correct their own mistakes most of the time during the stimulated re-call sessions, it can be concluded that this incorrect use of *'but'* could be because of the participant 1's negligence.

Furthermore, it is seen that one participant used *'in spite of'*, which was one of the forms that were introduced in the trainings, incorrectly in terms of grammar (Example 5.14).

Example 5. 14. Incorrect Use of *'in spite of'* Grammatically in TM-COM-P1 (Student Sentence, Participant 2)

In spite of students are likely to believe they are passionate to improve themselves, they are likely to try to have some free time even during the class.

In this example, as *'in spite of'* is followed by a full sentence instead of a noun, noun phrase or a gerund structure, it is used grammatically incorrect. According to constructivists, making mistakes is natural and they might point out to the areas where the learners need further help (Vosniadou and Brewer, 1987; Hesketh, 1997). Therefore, this mistake on *'in spite of'* might indicate that participant 2 was in the process of learning this form, but s/he had a misconception about its syntactic usage. Thus, just like every participant, s/he was also provided with indirect corrective feedback to be informed about his/her mistakes and work on them individually. Finally, table 5.11 shows that participant 4 overused *'still'* (Example 5.15).

Example 5. 15. Overuse of *'still'* in TM-COM-P1 (Student Sentence, Participant 4)

Although I prefer frequent discussions between the professor and the students, I still believe that there should be lectures too.

In this example, *'still'* is used unnecessarily because *'although'* already semantically links two contrastive ideas. Therefore, there was no need for another contrastive marker. According to Sancak (2019), EFL learners may consult to their mother tongue while making the meaning of some markers, which may result in misconceptualization. Also, Chesterman (1998) highlights the issue of native language transfer while writing in the target language. Similarly, in Example 5.15. it seems that participant 4 used *'still'* to mean *'yine de'* in Turkish: *'Hoca ve öğrenci arasındaki tartışmayı tercih etmeme rağmen [although], yine de [still] ders anlatımının da olması gerektiğini düşünüyorum'*, but she was not aware that this structure was not possible in English.

The themes occurred in participants' second diaries, which they wrote right after the training on comparative transition markers, are shown in table 5.12.

Accordingly, it can be observed that 2 participants experienced some changes in their attitudes towards writing: "Yes, there have. I wasn't used to add these words in my paragraphs much, but I will use them from now on" (Participant 5). "I become more interested every day because I'm learning new stuff everyday" (Participant 1).

However, 5 of them stated that there wasn't any change in their attitudes towards writing because they had already been interested in writing. Similar to their previous diary, the participants again reported no complaints on the suitability of the training in terms of its methodology, and they all stated that they would use the information they learnt in their future writings. Also, all of them expressed that they had positive feelings during the class.

Table 5. 12. Frequency Distribution of the Themes in Diary 2

Themes	f
Change in Attitude towards Writing	
Yes	2
No	5
Suitability of the Method of the Training	
Yes	7
No	0
Application of the Knowledge	
Yes	7
No	0
Feeling During the Training	
Positive Feeling	7
Negative Feeling	0
Learning	
Nothing New	4
Partially New	3
Completely New	0

Lastly, 4 participants reported that what they had learnt in the training was not new for them since they had learnt them previously. Still, 2 of those participants also expressed that they were happy to have a chance to revise them: "I learned structures that help us understand the situation in the sentences. I had already known these structures. I learned them at high school, but it was great to have a look at them again" (Participant 5). "I already knew about these topics, but it was good to revise them" (Participant 7). In addition, three of them wrote that the items taught in this training were partially new for them: "I use some of them regularly and I was taught a couple of them in the past years but today some of the phrases became clearer" (Participant 1). "I was already using it but with that lesson I added more knowledge" (Participant 2).

"I have learned conjunctions that shows contrast and similarity. They were not completely new to me so, I just consolidate my knowledge about the conjunction, but I do not usually use nevertheless since. I learned that nevertheless has a similar meaning as still" (Participant 4).

Overall, the quantitative findings on the immediate effect of the data driven and student specific comparative transition marker training showed that the freshmen pre-service English language teachers employed more comparative markers in quantity and variety. In terms of (in)correct use, they tended to make mistakes while using the devices that had just learnt which might indicate that they were still in the learning process. The qualitative findings verified that the participants continued having a positive attitude towards writing in general and that they were satisfied with the methodology. Therefore, it can be concluded that in the short-term, the student specific and data driven comparative transition marker training achieved its aim of employing more variety of the forms of comparative transition markers and making the participants be aware of the importance of using these devices.

5.3.3. The Immediate Effect of DDL on the Use of Consequential Transition Markers in Freshmen Pre-Service English Language Teachers’ Argumentative Paragraphs

In this section, the short-term effect of data-driven learning method with student specific corpus-informed materials on consequential transition marker use of freshmen pre-service English language teachers in their argumentative paragraphs is examined.

Table 5. 13. Comparison of the frequencies of Consequential Transition Markers in Participants’ Pre-Training Argumentative Paragraphs and TM-CON-P1

ID	Pre-Training Argumentative Paragraphs			TM-CON-P1		
	Consequential Transition Markers					
	f	%	Tokens	f	%	Tokens
1	4	2.23	179	3	1.67	180
2	9	2.23	403	4	2.25	178
3	5	1.84	271	1	0.64	156
4	4	2.32	172	3	2	150
5	5	2.77	180	3	1.76	170
6	4	2.75	145	4	2.21	181
7	0	0	174	3	1.88	160
Total	31	2.03	1524	21	1.78	1175

Table 5.13 shows how frequently each participant employed consequential TMs in their pre- and third while tests (i.e., TM-CON-P1). Except from participant 2 and 7, it is realized that the participants showed a tendency to use these devices less than

their pre-training argumentative paragraphs after the training. However, the Wilcoxon matched-pairs signed-ranks yielded no significant results ($Z = -1.01$, $P = .31$). According to Qin and Uccelli (2019), the quality of writing does not always correlate with the frequency of the metadiscourse markers used. Furthermore, Sancak (2019) suggest that more proficient EFL learners might employ less interactive metadiscourse markers in their academic writings. Accordingly, the reason behind the less frequent use of consequential markers of the participants of the current study after the training might be explained by their overdependence on these markers in their pre-training argumentative paragraphs. In other words, while they used to depend highly on the consequential transition markers previously, during the trainings, they might have become aware of additional and comparative transition markers and begun to employ these markers more, which in return may have decreased the number of consequential markers.

The corpus-informed student specific training on consequential transition markers had two aims. Firstly, it was intended to let the participants employ more variety of these markers. Secondly, it was meant to help them use these markers more correctly and appropriately. That is why, the participants were provided with the concordance lines of a list of consequential TMs (Table 5.14) to analyze these devices and their correct use. The forms of these markers were selected upon conducting frequency analyses in TOEFL-High corpus that contained 1538120 tokens in total. Also, participants' employment and (in)correct uses in pre-test, TM-AD-P1 and TM-COM-P1 were also taken into consideration.

Table 5. 14. The Frequencies of the Forms of Consequential Transition Markers in the Teaching Material on TOEFL-High Corpus

Forms	f	rf *
as	4463	2.90
so (that)	1988	1.29
result in	1864	1.21
therefore	1327	0.86
since	1042	0.67
thus	949	0.61
due to	628	0.40
lead to	601	0.39
hence	411	0.26
as a result	280	0.18

* rf = relative frequency (per 1000 words)

Table 5. 15. Forms, Frequency and Appropriacy of Consequential Transitional Markers in Pre-Training Argumentative Paragraphs and TM-CON-P1

Pre-Training Paragraphs	f	%	IU (G)	IU (C)	OU	UU
Consequential Transition Markers						2
because	6	9.37	3	-	-	
as	3	4.68	-	-	-	
because of	3	4.68	-	-	-	
due to	3	4.68	-	-	-	
since	3	4.68	-	-	-	
so	3	4.68	-	-	-	
for	2	3.12	-	-	-	
in order to	2	3.12	1	-	-	
therefore	2	3.12	-	-	-	
thus	2	3.12	-	-	-	
that way	1	1.56	-	-	-	
to	1	1.56	-	-	-	
Total	31	48.43				
TM-CON-P1	f	%	IU (G)	IU (C)	OU	UU
Consequential Transition Markers						4
as a result	3	4.76	1	-	-	
since	3	4.76	-	-	-	
because	2	3.17	1	-	-	
due to	2	3.17	-	-	-	
so that	2	3.17	-	-	-	
as	1	1.58	-	-	-	
because of	1	1.58	-	-	-	
for this cause	1	1.58	-	-	-	
in order to	1	1.58	-	-	-	
so	1	1.58	-	-	1	
thanks to	1	1.58	-	-	-	
therefore	1	1.58	-	-	-	
to	1	1.58	-	-	-	
thus	1	1.58	1	-	-	
Total	21	33.33	3	-	1	

When Table 5.15 is examined, it can be concluded that after the training, the participants of the current study utilized more variety of consequential transition markers and from the teaching material they employed ‘*as a result*’ and ‘*so that*’ for the first time. Moreover, unlike the first two weeks of the training, where the overdependence on ‘*and*’ and ‘*but*’ continued after the trainings, the popularity of ‘*because*’ among the participants decreased and they preferred using ‘*as a result*’ and ‘*since*’ more than ‘*because*’ in their TM-CON-P1. This result contradicts to Chan and Tan (2010), Mohamed and Rashid (2017), Dumlao and Wilang (2018), Ho and Li (2018), Yüksel and Kavanoz (2018), Qin and Uccelli (2019) and Sancak, (2019) since they all found out that ‘*because*’ is the most frequent transition marker that indicates consequential relation. This situation might be thanks to the student-

specific training that aimed at encouraging the participants of the current study to employ different interactive metadiscourse markers.

Regarding the (in)correct use of consequential transition markers, unfortunately, the participants underused more of these devices than in their pre-training argumentative paragraphs (Examples 5.16, 5.17, 5.18 and 5.19).

Example 5. 16. Underuse of a Consequential TM in TM-CON-P1 (Student Sentence, Participant 1)

(1) I totally agree with this statement X (2) we already seen that this year, Covid-19 showed us that.

In example 5.16, the second argument is the reason of the first argument. However, because it was not indicated with a consequential transition marker, it becomes hard for the reader to comprehend this relation.

Example 5. 17. Underuse of a Consequential TM in TM-CON-P1 (Student Sentence, Participant 3)

(1) We don't have any regards for ourselves let alone the animals and other living beings X (2) in the end, we are destroying ourselves.

Example 5. 18. Underuse of a Consequential TM in TM-CON-P1 (Student Sentence, Participant 5)

(1) I don't think the earth will last long if we consider these factors. X (2) We should stop what we are doing and try to realize that the earth is so special for us.

Example 5. 19. Underuse of a Consequential TM in TM-CON-P1 (Student Sentence, Participant 6)

(1) Many forests are destroyed, especially because of the barbecue party, because the participants leave before putting out the fire. X (2) Certainly human beings are making the world a worse place.

In examples 5.17, 5.18 and 5.19 the second arguments are the results of the first arguments. Yet, not using a consequential transition marker to point out this relation resulted in not being able to convey the intended meaning to the reader.

On the other hand, although they were not included in the teaching material it seems that the participants became aware of the grammatical use of *'because'* and *'in order to'* indirectly during the trainings since less mistakes were observed for the former (Example 5.20) and no mistakes occurred for the latter. According to Ferris and Helt (2000), indirect corrective feedback enables language learners to correct their errors. Moreover, Eslami (2014) also found out that providing students with feedback for their writing was beneficial for them to realize their mistakes and learn from them. Hence, thanks to two feedback the participants of the current study had already been provided, they might have learnt the correct use of these markers.

Example 5. 20. Incorrect Use of *'because'* and *'as a result'* in Grammatically in TM-CON-P1 (Student Sentence, Participant 2)

(1) When we do these things, we see **as a result** people not only running for profit also running for environmental friendly innovations. (2) **Because** you create a world that only environment friendly stuff could sell or be appreciated.

In this example, the syntactic feature of *'because'* is violated since it needs to form a dependent clause that must be linked with an independent one. Yet, in example 5.20, it is seen that *'because'* is used in the independent sentence alone. Moreover, the syntactic position of *'as a result'* in the first sentence makes it grammatically incorrect because it requires to be either in the sentence initial position or preceded by the sentence that semantically carries the causal information. Using *'as a result'* grammatically incorrectly might stem from the fact that it was the first-time participant 2 started using this structure and therefore s/he could still have been in the process of learning (Vosniadou and Brewer, 1987; Hesketh, 1997). In addition to incorrect uses of *'because'* and *'as a result'*, *'thus'* (Example 5.21) was also used grammatically incorrectly.

Example 5. 21. Incorrect Use of *'thus'* Grammatically in TM-CON-P1 (Student Sentence, Participant 7)

Even if they try their hardest, big corporations and arrogant people continue to harm our world; **thus**, making it a worse place to live.

While ‘*thus*’ syntactically requires a full sentence to be attached to, in example 5.21, it was used with a gerund structure, which makes it a grammatically incorrect use. What is more, similar to the previous trainings, ‘*thus*’ was a form that had been used without any problems in the pre-training argumentative paragraphs of the participants. Thus, it might be explained by their being careless while writing their paragraphs (Algi, 2012; Uluçay 2014).

Finally, participant 7 overused ‘*so*’ (Example 5.22) because the frame marker ‘*to conclude*’ indicates that the stage of the paragraph and its being preceded by ‘*so*’ distorts the meaning.

Example 5. 22. Overuse of ‘*so*’ in TM-CON-P1 (Student Sentence, Participant 7)

So, to conclude, even if we try our best, our race still has a negative effect on the planet.

Qin and Uccelli (2019) propose that such occurrences of overuse issues are due to language learners’ misconceptualization of context specific rhetorical assumptions. Likewise, when Participant 7 was asked about this overuse issue during the stimulated recall sessions, s/he responded:

Well, I do this a lot. I mean, I know that putting them together is not okay, but I do not know, it feels like I would say it that way while speaking and then I directly write it the same way but yes, it is wrong (*Ya ben bunu çok yapıyorum. Yani biliyorum ikisi yan yana iyi değil ama bilmiyorum konuşurken öyle söylemişim gibi geliyor sonra direkt yazıyorum ama yanlış o evet*) (Participant 7).

To enable participants to be aware of their mistakes and to let them work on them individually, indirect corrective feedback was provided.

Right after the instruction, the participants wrote their third diaries, and their answers were analyzed thematically (Table 5.16). Only participant 7 stated that there had been a change in his/ her attitude towards writing because s/he started to be interested in conjunctions. On the other hand, the others claimed that their positive attitude towards writing had stayed the same.

Table 5. 16. Frequency Distribution of the Themes in Diary 3

Themes	f
Change in Attitude towards Writing	
Yes	1
No	6
Suitability of the Method of the Training	
Yes	7
No	0
Application of the Knowledge	
Yes	7
No	0
Feeling During the Training	
Positive Feeling	7
Negative Feeling	0
Learning	
Nothing New	6
Partially New	1
Completely New	0

Similar to the previous diaries, all the participants expressed that the materials and the training was suitable for them since it was “professional (f=2) and informative (f=1)”. Moreover, Participant 5 stated: “Yes, it was suitable for me because the visuals and examples were there for me to understand the subject well” (Participant 5). The participants also stated that they would apply the things they learnt in their writings because they were aware of their significance in transferring their messages to their readers. Furthermore, all the participants experienced positive feelings during the training, and they mentioned “happy (f=5), excited (f=1), and content (f=1)” adjectives to describe their feelings. Finally, they reported that what they were taught was not new for any of them, except from participant 1 who wrote “There were familiar words in this lesson and I’m learning them more properly”.

To sum up, the quantitative findings on the immediate effect of the corpus-informed and student specific consequential transition marker training demonstrated that the freshmen pre-service English language teachers employed less consequential markers in quantity, which might indicate that the participants started to use them more carefully. Moreover, they used more variety of these devices. When it comes to (in)correct use, their problem of underusing consequential transitions increased. Yet, they seemed to show progress in terms of using previously incorrectly used devices correctly. Still, there were instances of incorrect uses in terms of grammar and context, and overuse. The qualitative findings ensured that the participants’

positive attitude towards writing, the class material and trainings continued, and they were willing to use the information they learnt after the training; although, it was not completely new for any of them, which might indicate that they raised awareness about their importance. Thus, it can be drawn that in the short-term, the student specific and data driven consequential transition marker training achieved its aim of letting participants employ more variety of the forms of consequential transition markers and raising their awareness.

5.3.4. The Findings of the First Progress Survey

Since the present study was longitudinal, it was necessary to evaluate the methodology and the progress of the participants while the interactive metadiscourse marker instruction was on progress. That is why, two progress surveys were conducted (See section 4.3.2.5) and in this section, the findings of the first progress survey, which students took three weeks after the instruction when the trainings on transition markers were completed, were scrutinized.

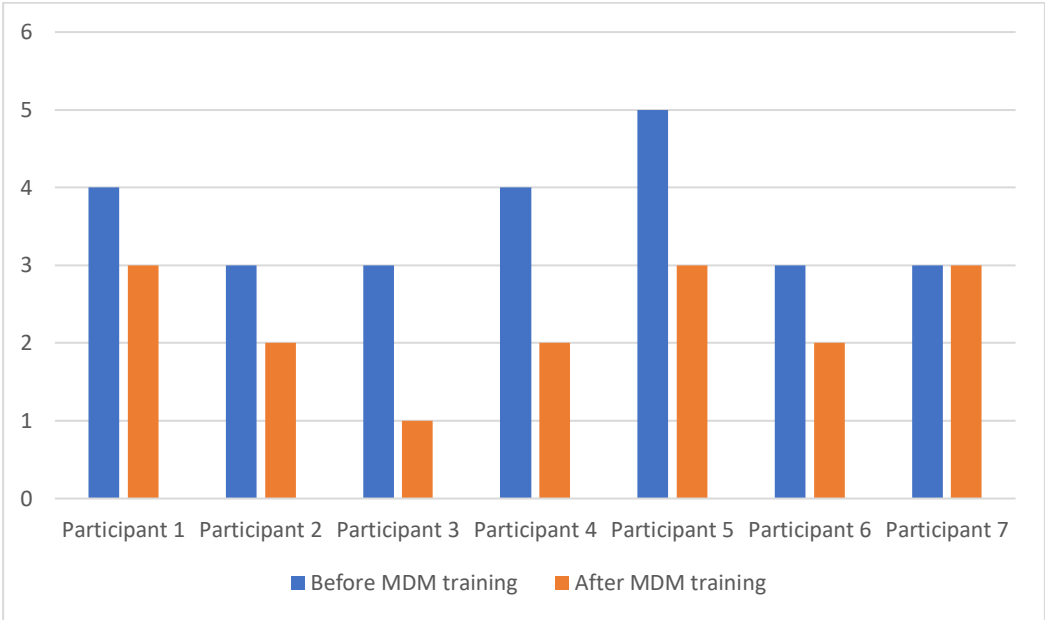


Figure 5. 3. Participants’ Perceived Difficulty in Writing Before and After Interactive MDM

The first progress survey consisted of three sections. The first section dealt with the evaluation of pre- and the first three while-tasks in terms of their difficulty levels. Sections 4.3.2.1 and 4.3.2.2 elaborate on the findings of this section and Figure 4.5 also demonstrates the participants' perceived task difficulty level. On the whole, it was found out that none of the tasks were hard for the participants to write on. To analyze the relation between the student-specific corpus-informed interactive metadiscourse marker instruction and the participants' evaluation of the writing difficulty, they were asked to rate their perceived difficulty in writing on the topics before (M= 3.57) and after the trainings (M= 2.28) on a 5-point Likert scale. It was discovered that they found it easier to write after the trainings (Figure 5.3).

When they were asked to state the reasons behind their ratings it was understood that they started to become aware of the importance of the metadiscourse markers and they benefited from the student specific trainings. Similarly, Cheng and Steffensen (1996) and Tavakoli, Bahrami and Amiran (2012) also found out that upon metadiscourse marker instruction, the learners become more aware of the functions and importance of these devices. The participants of the current study reported: "Because metadiscourse markers are the devices that help us express ourselves better (*Çünkü, üst söylem belirleyicileri kendimizi daha iyi ifade etmeye yarayan araçlardır*)" (Participant 1). "The trainings enabled us to consolidate (*Dersler konuları pekiştirmemizi sağladı*)" (Participant 2). "Learning the technique makes writing easier (*Tekniği öğrenmek yazmayı kolaylaştırıyor*)" (Participant 3). "It became easier to maintain cohesion while connecting sentences or explaining etc. (*Cümleleri birleştirmelerde, açıklama yaparken vs. anlam bütünlüğünü sağlamak kolaylaştı*)" (Participant 6).

I used to be more careless about the organization of the paragraphs that I wrote before the metadiscourse marker training. Since I started to work on the training I feel as if I had a progress in paragraph organization as well as generating ideas (*metadiscourse markers eğitimlerinden önce yazdığım paragrafların organizasyonu konusunda daha dikkatsizdim dersler üzerinde çalışmaya başladığımdan beri paragraf organizasyonu ve aynı zamanda fikir üretme açısından daha ilerlemiş hissediyorum*) (Participant 4).

"If I had not known about metadiscourse markers and other important issues, it would have been impossible to write a paragraph. (*Üst söylem*

belirleyicileri ve diğer önemli konuları bilmeseydim bir paragraf yazmam imkânsız olurdu” (Participant 5).

However, participant 7 explained:

“For now, nothing has changed. After learning different things, my thought on writing may change. *(Şimdilik herhangi bir değişim olmadı. Belki daha farklı şeyler öğrendikten sonra yazmaya karşı olan düşüncelerim değişir)*” (Participant 7).

Table 5. 17. The Problematic Transition Markers for the Participants in Progress Survey 1

TRANSITION MARKERS	f
Additional Transition Markers	
what is more	2
apart from	1
besides	1
moreover	1
Comparative Transition Markers	
nonetheless	3
nevertheless	2
whereas	2
although	1
even though	1
in contrast (to)	1
in spite of	1
in the same way	1
likewise	1
on the contrary	1
rather than	1
still	1
though	1
when compared to	1
Consequential Transition Markers	
hence	3
thus	3
lead to	1
result in	1
therefore	1

The second section of the first progress questionnaire addressed to the transition markers that the participants of the current study found hard to use (Table 5.17) and it was discovered that most of the items were in the category of comparative transition markers. This situation could be explained by the fact that these devices had been the least frequent transition markers in the participants pre-training argumentative paragraphs. Therefore, this might have been due to their abstaining from these markers because of their difficulty. Alternatively, this situation could be related to learning-process of the participants. To explain, whereas almost all the

participants reported that what they had learnt in the first and third weeks, when the additional and consequential transition markers were the foci of the trainings respectively, were not new for them, almost half of them stated that the comparative markers were partially new for them. Hence, those participants might have still been in the process of acquiring these devices and some of them could have been problematic for them because learning is a process that requires exposure and practice (Krashen and Selinger, 1975; Krashen, 1976).

Moreover, three participants did not choose any of the markers to be problematic for them, which means they thought they could use all the interactive metadiscourse devices covered in training. The four participants who had problems explained why they still find it hard to use certain devices as: “I practiced on them less when compared to the others (*üstlerinde diğerlerine göre daha az pratik yaptım*)” (Participant 1). “Because I do not see these devices much and I do not know how to use them in a sentence (*Çünkü o yapılar ile pek sık karşılaşmıyorum ve nasıl cümle içinde kullanacağımı pek bilmiyorum*)” (Participant 5). “Because I did not see them very often, sometimes I may be confused about their meanings. (*Çok yaygın olarak görmediğim için bazen anlamlarını karıştırıyorum*)” (Participant 7).

As I did not use them much in the past, whenever I need to write on a given topic, using them feels hard and nervous (*Geçmişte çok kullanmadığım için herhangi zaman konulu bir yazıda kullanmak zor ve şüpheli geliyor*) (Participant 2).

Therefore, it can be inferred that not enough exposure, usage and practice were the three reasons why four participants found the transition markers in table 5.16 problematic. Therefore, considering the needs of these participants, three example paragraphs that contained the problematic devices from the TOEFL-High corpus were provided as self-study to expose them to these devices more and encourage them to use these devices in their following tasks.

The final section of the first progress questionnaire concentrated on participants' evaluations on the trainings, course content, materials used, and the data driven learning method. Accordingly, they were asked questions about the aim of corpus-informed materials and their level of difficulty, their improvement and confidence in interactive MDM use, the effectiveness and adequacy of the materials prepared,

the importance of these devices, and their willingness to participate in the following trainings.

Firstly, four participants expressed that the aim of using corpus-informed materials was to provide them with examples of successful paragraphs and three of them reported that it was to enable them to discover the technique of writing more academically. In other words, the participants emphasized the fact that the materials they worked on were from genuine and verified sources. When they were asked to rate the difficulty level of the concordance lines via 5-point Likert scale, five of them chose '2' which stands for easy and two of them chose '3' which stands for neither easy nor difficult. The mean was 2,28 and it revealed that the example sentences in the concordance lines were not hard for them to comprehend.

Secondly, four participants thought they had improved their use of interactive metadiscourse markers thanks to the trainings: "I am improving because I work on the intensified versions of the structures (*Gelişiyorum çünkü, her şeyin daha yoğun halini görüyorum*)" (Participant 1). "I move away from using the same metadiscourse markers (*bir konu hakkında aynı tür üst söylem kullanımından uzaklaştım*)" (Participant 2). "Yes, the trainings on metadiscourse that take place every week enable me to comprehend them (*Evet, her hafta üst söylem üzerine yapılan çalışmalar konuyu daha iyi kavramamı sağlıyor*)" (Participant 3).

"Yes, I think that I am improving because I find the trainings and the tasks given functional and beneficial. (*Evet düşünüyorum çünkü derslerin ve verilen taskların işlevselliğini yararlı buluyorum*)" (Participant 4).

Whereas three participants stated that they have not experienced any improvements yet, but they hoped to progress later in the trainings.

Thirdly, five participants reported that they built confidence in using the transition markers and they explained that it was due to being exposed to them more often (f=1), receiving feedback (f=1), being more knowledgeable about them (f=1), and practicing (f=2). On the other hand, participant 5 and participant 6 expressed no change in their confidence level. In addition, when they were asked to reflect on the relation between the trainings and the improvement in their general writing skills,

all of them clarified that the trainings led them to develop their writing skills. It was because of practicing (f=3), being exposed to writing more often (f=2), and receiving feedback (f=2).

Fourthly, All the participants found the training effective mainly thanks to the methodology of the training (f=2), the resources used (f=2), its practice opportunities (f=2) and being purposeful (f=1). However, while five of them found the trainings and the materials used adequate, two of them did not agree with them because of the online format of the trainings:

“Personally, I do not find it really sufficient because I do not see any benefit of it while sitting at the computer (*Şahsen pek yeterli bulmuyorum çünkü bilgisayar başından pek faydasını görmüyorum*)” (Participant 5).

Not really, but it is because of the Pandemic... using books and notebooks at school or being in the classroom is more convenient for me and it feels more beneficial. (*Tam olarak değil ama bunun nedeni pandemi ... Okulda olup kitap defter üzerinden gitmek veya sınıfta olmak bana daha uygun ve yararlı geliyor*) (Participant 4)

Istifçi (2017) also put forward that Turkish EFL learners in higher education context find face-to-face education more convenient in that it promotes teacher and peer interaction. However, since this study was carried out under Covid-19 pandemic regulations that obligates distant education format, it could not be turned into face-to-face format despite the feedback received from participants. Still, all the participant agreed on their willingness to continue participating in the trainings because they believed that it was advantageous in terms of preparing for the real TOEFL exam.

Overall, since it was a longitudinal study, the aim of this survey was to get feedback from the participants to tune the methodology where necessary. The findings yielded certain important issues. First, it was found that none of the tasks or concordance lines were particularly difficult for any of the participants to be restrained from learning. Second, the results enabled the researcher to observe the problematic transition markers and discover that the reasons behind were not being exposed to them enough, lack of practice and not using. Thanks to this finding, three corpus-informed example paragraphs that contained the problematic devices

were made available for the participants to analyze. Thirdly, it was discovered that the participants were overall satisfied with the training, the corpus-informed materials and the data driven learning methodology and they began to feel the progress in their writing and metadiscourse markers. Also, they started to raise their awareness on the importance of using these devices in their writings. This finding goes hand in hand with Tavakoli et. al., (2012) who also put forward that interactive metadiscourse marker training helps EFL learners be aware of these devices, write more easily and build their confidence in using these devices.

5.3.5. The Immediate Effect of DDL on the Use of Frame Markers in Freshmen Pre-Service English Language Teachers' Argumentative Paragraphs

In this section, the short-term effect of data-driven learning method on frame marker use of freshmen pre-service English language teachers in their argumentative paragraphs is examined.

Table 5. 18. Comparison of the Frequencies of FMs in Participants' Pre- and FM-P1 Tests

ID	Pre-Training Argumentative Paragraphs			FM-P1		
	Frame Markers					
	f	%	Tokens	f	%	Tokens
1	0	0	179	7	4.22	166
2	0	0	403	5	2.15	233
3	3	1.10	271	4	2.08	192
4	0	0	172	4	2.15	186
5	2	1.11	180	5	2.51	199
6	0	0	145	1	0.54	185
7	3	1.72	174	0	0	152
Total	8	0.52	1524	26	1.98	1313

Table 5.18 shows how frequently each participant employed frame markers in their pre- and fourth while tests (i.e., FM-P1). Except from participant 7, the others seemed to increase the amount of frame markers they used in their FM-P1 after the training. To test the significance of this increase, a Wilcoxon matched-pairs signed-ranks test was conducted, but it did not yield significant results ($Z = -1.69$, $P = .09$). To remind, more than half of the participants had not used any FMs prior to the trainings. Therefore, apart from its aims to enable them to employ more variety of these markers and to use them more correctly and appropriately, the training on

FMs also aimed to highlight the importance of FMs to encourage them to employ these devices. Table 5.18 verifies the achievement of this training in this regard.

For the other two aims of the training, the participants were provided with the concordance lines of a list of frame markers to analyze them and their correct use (Table 5.19). The forms of the FMs in the concordance lines were the most frequent ones in TOEFL-High corpus that contained 1538120 tokens in total.

Table 5. 19. The Frequencies of the Forms of FMs in the Teaching material on TOEFL-High Corpus

Forms	f	rf *
<i>Announcement Goals</i>		
for several reasons	69	0.04
there are several reasons	63	0.04
there are many reasons	43	0.02
<i>Label Stages</i>		
in conclusion	603	0.39
to conclude	252	0.16
to sum up	144	0.09
<i>Sequencing</i>		
finally	570	0.37
first of all	485	0.31
secondly	481	0.31
first	349	0.22
firstly	320	0.20
second	259	0.16
another reason	181	0.11
thirdly	138	0.08
third	55	0.03

* rf = relative frequency (per 1000 words)

Before and after the training, it is witnessed from table 5.20 that the participants of the current study used sequencers most frequently followed by label stages, announcement goals and topic shifters respectively without any change. Similarly, Sancak (2019), who also worked on interactive metadiscourse marker use of EFL learners in the academic genre, came up with the same frequency of the sub-categories of frame markers. When the nature of the argumentative genre is taken into consideration, this order can be plausible because it requires writers to take a position towards an argument explicitly and put forward two or three points to support their position and summarize their arguments with conclusion (Hyland, 1990). Thus, while presenting their supporting ideas the writers of the

argumentative genre employ several sequencers to organize their text, whereas they tend to employ one form of announcement goals and label stages. This might explain why sequencers are the most frequently used sub-categories of frame markers.

Table 5. 20. Forms, Frequency and Appropriacy of Frame Markers in Pre- and FM-P1Tests

Pre-Training Paragraphs	f	%	IU (G)	IU (C)	OU	UU
Frame Markers						1
Announcement Goals						
I have several reasons for	1	12.5	-	-	-	
Label Stages						
overall	1	12.5	-	-	-	
to conclude	1	12.5	-	-	-	
Sequencers						
another reason would be	1	12.5	-	-	-	
in addition	1	12.25	-	-	-	
one of them being	1	12.5	-	-	-	
to start off	1	12.5	-	-	-	
Topic Shifters						
when it comes to	1	12.5	-	1	-	
<i>Total</i>	8					
FM-P1	f	%	IU (G)	IU (C)	OU	UU
Frame Markers						1
Announcement Goals						
I have two perspectives	1	3.84	-	-	-	
for many reasons	1	3.84	-	-	-	
for several reasons	1	3.84	-	-	-	
there are several reasons	1	3.84	-	-	-	
there are two reasons	1	3.84	-	-	-	
Label Stages						
in conclusion	3	11.5	-	-	-	
in summary	1	3.84	-	-	-	
to sum up	1	3.84	-	-	-	
to summarize	1	3.84	-	-	-	
Sequencers						
finally	2	7.69	-	-	-	
first of all	1	3.84	-	-	-	
firstly	3	11.5	-	-	-	
secondly	4	15.38	-	-	-	
the first reason	1	3.84	-	-	-	
the second reason	1	3.84	-	-	-	
third	1	3.84	-	-	-	
thirdly	1	3.84	-	-	-	
Topic Shifters						
when it comes to	1	3.84	-	-	-	
<i>Total</i>	26					

Furthermore, when the most frequent sequencers are scrutinized, *‘firstly’*, *‘secondly’* and *‘finally’* can be seen in table 5.20. This finding is not surprising

because Adel (2006), Chan and Tan (2010), Asassfeh et al. (2013), Anwardeen et al. (2013), Mohamed and Rashid (2017), Ho and Li (2018), Dumlao and Wilang (2019) and Qin and Ucelli (2019) also discovered similar findings.

Announcement goals explicitly foreshadows the arguments to be elaborated on the paragraph. However, Sancak (2019) found out that EFL learners tend not to employ them despite their use of sequencers although Gear and Gear (2002) suggest that they are required if sequencers are going to be used. Thus, this lack of awareness might account for these markers' low frequency in this study. Likewise, topic shifters were the least frequently used sub-category of frame markers and this might be due to the word limit of the argumentative paragraphs the participants of the current study needed to write. Since they were asked to argue on a given task in 150-200 words, apart from suggesting 2 or 3 arguments, they might not have felt the need to go back to their previous arguments.

Besides the frequencies of the sub-categories of the frame markers, table 5.20 also shows the small number of these devices used by the participants of the current study before the training. However, when they were asked about the reasons why they refrained from using frame markers particularly in the stimulated recall sessions the participants reported that it was not because of their limited repertoire. Rather, they stated that they used to avoid employing them because they needed to write their paragraphs within a limited time and they were afraid of not being able to write enough supporting sentences (f=2), and they thought they needed to have a deep knowledge on the topic to be able to use these devices; otherwise, it seemed funny (f=1). Moreover, they also expressed that after the trainings, they realized that these markers let them have more control of their paragraphs (f=1) and write more organized and systematic paragraph to be easily followed by their readers (f=5). Thus, it was ensured that this training on frame markers were successful in encouraging participants to use frame markers and raise awareness in the short-term.

Regarding the (in)correct use of frame markers, it is found out from table 5.20 that the participants overcame their problem of using '*when it comes to*' contextually

incorrect even if it was not in the teaching material. This might be attributed to the longitudinal nature of the training model where students had been writing one argumentative paragraph each week and getting feedback on it as Ferris and Helt (2000) and Eslami (2014) put, feedback is effective in letting EFL learners write more appropriately. What is more, while four participants employed frame markers for the first time, none of these devices were overused or used incorrectly, which proves that the training on frame markers were effective in enabling using these markers appropriately in the short-term. Nevertheless, one participant underused a frame marker in the *announcement goals* category.

Example 5. 23. Underuse of a FM in FM-P1 (Student Sentence, Participant 3)

(1) Many people, especially parents of students and teachers, are in the mindset that grades encourage students to work harder than usual. (2) On the contrary, grades are actually pretty discouraging for many students, including myself X. (3) First of all, it is a major cause for stress.

In this example, the third sentence contains a sequencer (first of all) which indicates that a set of arguments are going to be presented in the paragraph in favor of the topic sentence proposed in sentence 2. Therefore, it was also necessary to include a frame marker in the sub-category of announcement goals to inform the reader explicitly (Gear and Gear, 2002).

Table 5. 21. Frequency Distribution of the Themes in Diary 4

Themes	f
Change in Attitude towards Writing	
Yes	3
No	4
Suitability of the Method of the Training	
Yes	7
No	0
Application of the Knowledge	
Yes	7
No	0
Feeling During the Training	
Positive Feeling	6
Negative Feeling	1
Learning	
Nothing New	3
Partially New	4
Completely New	0

The participants' answers on their fourth diary, which they wrote after the training on frame markers, were analyzed thematically (Table 5.21). Interestingly, their answers for some items were quite different from the previous diaries. For example, for the first time three of the participants reported that their attitude towards writing has changed after the training: "I am more into conjunctions" (Participant 1). "Yes, today's class gave me more encouragement about writing paragraphs with more coherence and so" (Participant 2). "Yes, I will try to use the frame markers from now on, as much as I can in my paragraphs" (Participant 5).

Just like the previous ones, in this diary as well, all the participants thought that the data driven learning method was suitable for them. They further explained that it was due to the examples (f=4), being easy to follow (f=1) and fun (f=1) and raising awareness in them (f=1). Also, they all agreed that they would use what they had learnt in their future writings by explaining the importance of frame markers as: "Yes, in any conversation, essay because it helps to write more technically and efficiently" (Participant 1). "I will be able to use this topic more frequently" (Participant 2). "Yes, I think I will use them because they are so important for writing a good paragraph" (Participant 5). Therefore, it can be concluded that the training achieved raising awareness on the importance of the frame markers. In addition, except from one participant who expressed that s/he was too tired during the training because of the lesson s/he had attended prior to this one, all the other participants had positive feelings throughout the training.

Finally, most of the participants stated that the information they learnt in the training was partially new for them, which means they learnt new things to build on their pre-existing knowledge: "It wasn't completely new, but even if I'm familiar, I learn them more technically and dense" (Participant 1). "That was not a new thing for me, but I wasn't using it. So now I kind of got the little courage to write with using this type" (Participant 2).

The participants who reported that the information was not new for them at all clarified that they learnt these markers and their functions in preparatory school. This might mean that until the undergraduate level the pre-service English language

teachers had not had the chance to learn them. Ünaldı, Seloni, Yalçın and Aptoula (2020), also criticize the insufficient writing instruction in the Turkish context in K-12 and urge the authorities in this respect.

Overall, the quantitative findings of the immediate effect of the corpus-informed and student specific frame marker training showed that freshmen pre-service English language teachers employed these devices more in quantity. Moreover, they used much more variety of these devices without problems except from one underuse issue. The qualitative findings revealed that this training changed more participants' attitude towards writing in a positive way, more of them added new information to their already-existing knowledge and became aware of the significance of frame markers. Also, the diaries made sure that the participants still had a positive attitude towards the course. Under the light of these findings, it can be clearly stated that the training on frame markers was effective.

5.3.6. The Immediate Effect of DDL on the Use of Code Glosses in Freshmen Pre-Service English Language Teachers' Argumentative Paragraphs

This section presents the short-term effect of data driven learning method that made use of student specific corpus-informed materials on the freshmen pre-service English language teachers' use of code glosses.

Table 5. 22. Comparison of the Frequencies of CDGs in Pre- and CDG-P1 Tests

ID	Pre-Training Argumentative Paragraphs			CDG-P1		
	Code Glosses					
	f	%	Tokens	f	%	Tokens
1	2	1.11	179	4	2.42	165
2	2	0.49	403	6	2.29	262
3	1	0.36	271	0	0	175
4	2	1.16	172	0	0	143
5	0	0	180	2	1.08	184
6	0	0	145	2	1.16	172
7	2	1.14	174	1	0.60	166
Total	9	0.59	1524	15	1.18	1267

Table 5.22 demonstrates how frequently each participant employed CDGs in their pre- and the last while tests (i.e., CDG-P1). Accordingly, it can be observed that participants 5 and 6 who had not used any code glosses in their pre-training

argumentative paragraphs started using these devices after the training. Moreover, participants 1 and 2 increased the amount of code glosses they had used at the beginning. On the other hand, participants 3 and 4 did not use any code glosses although they had employed them in their pre-training paragraphs and participant 7 used a smaller number of code glosses in his/her CDG-P1. On the whole, it was seen that the employment of code glosses increased after the training. Thus, a Wilcoxon matched pairs signed ranks test was run to test the significance of this increase, but the results showed that it was not significant ($Z = -1.10$, $P = .27$).

Rather than frequency, this corpus informed and student specific instruction on code glosses aimed at helping freshmen pre-service English language teachers use a more variety of these devices and employ them more accurately and appropriately. That is why, the participants were provided with concordance lines of a list of code glosses (Table 5.22) for their analysis.

Table 5. 23. The Frequencies of the Forms of CDG in the Teaching Material on TOEFL-High Corpus

Forms	f	rf *
For example	2394	15.56
Such as	1106	7.19
In fact	372	2.42
Indeed	330	2.15
In other words	154	1
That is	67	0.43

* rf = relative frequency (per 1000 words)

The forms of these code glosses were the most frequent ones in TOEFL-High corpus that contained 153820 tokens. Also, participants' use of these devices in their previous argumentative paragraphs were taken into consideration while selecting the forms to be included in the teaching material.

When table 5.24 is examined in terms of variety, it is seen that freshmen pre-service English language teachers employed a more variety of code glosses. it can also be observed that the participants started using '*in other words*' and '*such as*' from the teaching material. Furthermore, they used '*for example*' and '*like*' more frequently after the training. In addition, they employed '*for instance*', '*this shows that*' and

'*what I am saying is*' while explaining their arguments further even though they were not included in the teaching material. This might be because the training might have triggered the participants' already existing repertoire of code-glosses and encouraged them to employ them. When the most frequent forms of these devices are compared with the findings of Sancak (2019), both similarities and differences were discovered. To illustrate, both the current study and Sancak (2019) found that '*for example*', '*for instance*' and '*such as*' were the top three mostly preferred code glosses to exemplify. On the other hand, whereas the participants of Sancak (2019) employed '*that is*' most frequently, the participants of the current study used '*in other words*' most frequently to elaborate on their prepositions.

Table 5. 24. Forms, Frequency and Appropriacy of Code Glosses in Pre-Training Argumentative Paragraphs and CDG-P1

Pre-Task	f	%	IU (G)	IU (C)	OU	UU
Code Glosses						3
this means	2	22.22	-	-	-	
for example	1	11.11	-	1	-	
I'd like to give an example	1	11.11	-	-	-	
if I need to simplify my opinion	1	11.11	-	-	-	
it doesn't mean	1	11.11	-	-	-	
like	1	11.11	-	-	-	
the other example is	1	11.11	-	1	-	
this would mean	1	11.11	-	-	-	
Total	9	0.59	-	2	-	3
CDG-P1	f	%	IU (G)	IU (C)	OU	UU
Code Glosses						-
for instance	3	20	-	-	-	
for example	2	13.33	-	-	-	
in other words	2	13.33	-	1	-	
like	2	13.33	-	-	-	
such as	2	13.33	-	-	-	
it doesn't mean	1	6.66	-	-	-	
this doesn't mean	1	6.66	-	-	-	
this shows that	1	6.66	-	-	-	
what I am saying is	1	6.66	-	-	-	
Total	15	1.18	-	1	-	-

What is more, it was also discovered from table 5.24 that the participants of the current study preferred to paraphrase their arguments to make their arguments clearer for their readers rather than exemplifying which is different from what Sancak (2019) found. The student specific corpus informed teaching material could have been the reason behind this finding since it focused less on the forms to

provide examples keeping their needs in mind because as Taghizadeh and Tajabadi (2013) suggest EFL learners tend to employ the markers that were taught to them.

In terms of accuracy, different from the previous trainings where participants underused the focused devices even after the instruction, it was found out that freshmen pre-service English language teachers overcame the problem of underusing code-glosses right after the training. This achievement of the training on code glosses might be attributed to the longitudinal design of this study because the participants had been receiving feedback for four weeks and as Ferris and Helt (2000) suggest it is effective in letting language learners be aware of their mistakes and correct them. Therefore, when their uptake from the feedback received was combined with the specific instruction on code glosses, they might have raised awareness and tended to employ them appropriately. Moreover, Table 5.24 also demonstrates that they learned how to use *for example* appropriately in terms of context. However, one instance of incorrect use of *in other words* (Example 5.24) contextually was observed, which might have stemmed from the nature of the learning process where making mistakes are seen as the natural outcome that indicates that acquisition is in progress (Nunan and Lamb, 1996).

Example 5. 24. Incorrect Use of ‘In Other Words’ Contextually in CDG-P1
(Student Sentence, Participant 2)

(1) When it comes to me, I prefer to study alone because it is not certain that my partner will be understanding and encouraging but it doesn’t mean that I run from group works every time. (2) What I am saying is that if I have the opportunity to know the partner that I will be working with **in other words** knowing the area that I will be working in iss a good opportunity to take the group work instead of self-study.

In this example, the participant employed *in other words* to suggest an alternative to his/her preposition instead of elaborating on it. Therefore, it was used inappropriately in terms of context.

The analysis of the participants’ last diaries, which were written after the training on code glosses is shown in table 5.25. Similar to their previous diaries, almost all of the participants expressed that there had not been any changes in their attitude

towards writing since they had already had positive attitudes except from Participant 5 who stated “Yes, I will try to use code glosses from now on since they are essential and useful for readers to understand what they read”. In addition, all of them again reported that the data driven learning method was suitable for them because of the quality material (1), examples (5), and practice opportunities (1). They also agreed that they would use what they had learnt in their future writings: “YES. It is vital for me to know this information in order to write more complex sentences” (Participant 3). “I will definitely use on my essays or my own writings” (Participant 4). “Of course, I think I will be able to use what I learned today in anywhere. I will use them in my works and assignments since they are very useful” (Participant 5). Moreover, all the participants experienced positive feelings during the training because they were “happy (f=3), excited (f=2), and comfortable (f=1)”.

Table 5. 25. Frequency Distribution of the Themes in Diary 5

Themes	f
Change in Attitude towards Writing	
Yes	1
No	6
Suitability of the Method of the Training	
Yes	7
No	0
Application of the Knowledge	
Yes	7
No	0
Feeling During the Training	
Positive Feeling	7
Negative Feeling	0
Learning	
Nothing New	5
Partially New	0
Completely New	2

Finally, five of the participants clarified that what they had learned in the training on code glosses was not something new for them. Moreover, four of them explained that they studied for them in the preparatory school while one of them stated that s/he learnt them unconsciously. The other two participants indicated that the information was new for them: “I’d like to put here that I learned new things today that I didn’t know before about today’s topic for example the usage difference between ‘such as’ and ‘for instance’ (Participant 2). “Today in this session I learned

code glosses and we did some exercises about it and read a paragraph. This was new to me because I haven't been taught these materials" (Participant 5).

In summary, the quantitative findings of the immediate effect of data driven learning method on code glosses suggest that freshmen pre-service English language teachers employed more code glosses in their argumentative paragraphs after the training. Furthermore, they used more variety of these devices and they used them more correctly and appropriately. Qualitative findings verified that the course content was suitable for the participants, and they could use code glosses in their upcoming writings. Also, they had a positive attitude towards the trainings. Thus, it can be stated that in the short-term the training on code glosses achieved its purpose.

5.3.7. The Findings of the Second Progress Survey

In this longitudinal study, two progress surveys were conducted to be able to assess the progress of the participants and to modify the methodology of the training if necessary (see section 4.3.2.5). The first of these surveys were conducted three weeks after the beginning of the student-specific instruction (see section 5.3.4). In this section, the results of the second progress survey, which students took on the fifth week of the instruction when the trainings on transition markers, frame markers and code glosses were completed, are investigated.

The second progress questionnaire consisted of four sections. The first section was designed to evaluate the task difficulty of the argumentative paragraph tasks in the fourth and fifth weeks. Section 4.3.2.3 deals with the findings of the first section of the survey and figure 4.5 demonstrates the participants' perceived task difficulty level. It was found out that neither of the tasks were particularly difficult for the participants to write about. Moreover, to observe the relation between the student specific corpus informed interactive metadiscourse marker instruction and the participants' evaluation of the writing difficulty, they were asked to rate their perceived difficulty in writing on the topics before and after the trainings on a 5-point Likert scale. It was discovered that four participants found it easier to write

after the trainings whereas for two of them, who stated that it had already been easy for them to write before the interactive metadiscourse marker instruction, the level of difficulty did not change (Figure 5.4)

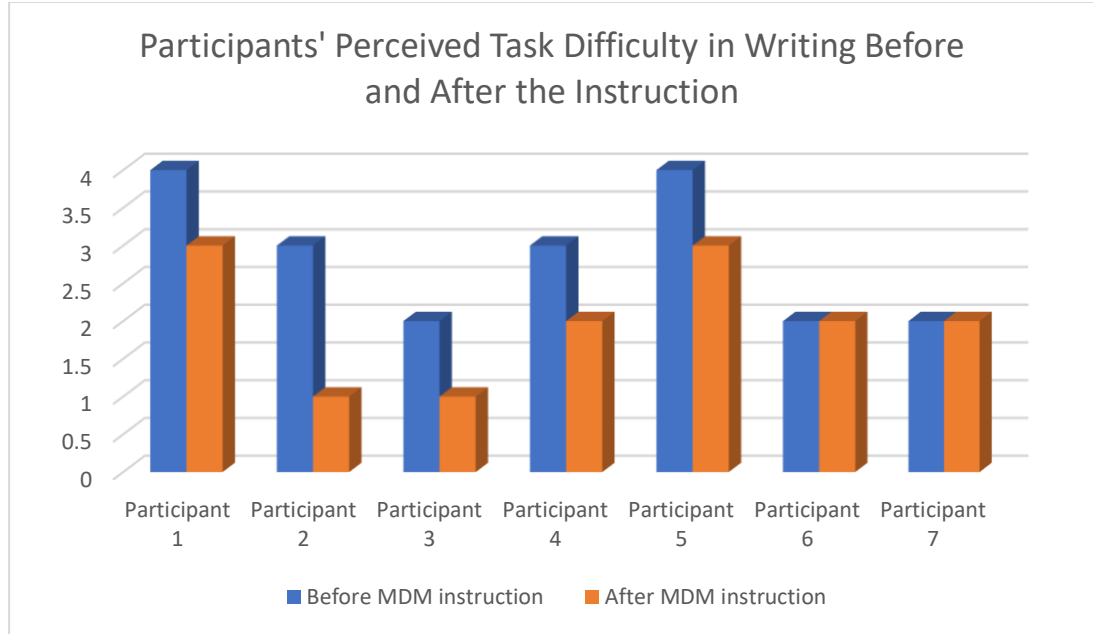


Figure 5. 4. Participants’ Perceived Difficulty in Writing Before and After Interactive MDM Training

To comprehend the reasons behind, they were asked to elaborate on their ratings. Similar to the findings of Cheng and Steffensen (1996) and Intraprawat and Steffensen (1995), it was found out that the participants raised their awareness on the importance of interactive metadiscourse markers thanks to the trainings: “Because I did not know much about metadiscourse markers before, but I have started to learn. (*Çünkü üst söylem belirleyicileri hakkında çok bir fikrim yoktu ama öğrenmeye başladım*)” (Participant 1)

I was not aware of some usages as I did not write much, but because we focused on the structures that I forgot how they were used it enabled me to write more easily. (*Çok fazla yazım yapmadığım için bazı kuralların farkında değildim ama genel olarak kullanımını unuttuğum konular üzerinde durduğumuz için daha rahat yazmamı sağladı*) (Participant 2)

As a student, I believe that I am able to generate ideas on these two writing tasks easily without thinking much but I think the training we received made writing process easier. (*Bir öğrenci olarak bu iki konu hakkında kendi düşüncelerimi üzerine çok fazla kafa yormadan, rahatça ortaya*

dökebileceğim fikrindeyim ama aldığımız eğitimin yazı yazma sürecini daha kolay hale getirdiğini düşünüyorum) (Participant 3).

I used to have difficulty in writing because I was confused about the usages of some linkers. As I comprehend them, it got easier for me to write in a more coherent way (*Biraz daha zorlanıyordum çünkü bazı bağlaçları birbirine karıştırıyordum, bağlaçları kavradıkça yazılarımda akışı yakalamam kolaylaştı*) (Participant 4).

I would say hard because I already find it hard to write and if I had not learnt about metadiscourse markers, I would not have been able to write at all. I believe that metadiscourse markers improved me in this regard. (*Zor olarak değerlendirdim çünkü zaten bir şey yazarken zorlanıyorum eğer üst söylem belirleyicilerini öğrenmeseydim hiç yazamazdım. Üst söylem belirleyicilerinin bana bir şeyler kattığını düşünüyorum*) (Participant 5).

The second and third sections of the second progress survey revealed the interactive MDMs that the participants of the current study found hard to use after the trainings. The reason why it was consisted of two sections unlike the first progress survey is that the second section addressed to the frame markers and code glosses (Table 5.26), which were the main foci of the second progress survey. On the other hand, the third section dealt with transition markers to assess whether analyzing example paragraphs that had been provided for the needs of the participants based on the results of first progress questionnaire helped (Table 5.27).

Table 5. 26. The Problematic Frame Markers and Code Glosses for the Participants

FRAME MARKERS	f
to sum up	1
another reason	1
for several reasons	1
CODE GLOSSES	f
that is	2
in other words	1

These devices in table 5.26 were problematic for two participants and the other five participants did not choose any of the items, which means they experienced no problems in using any of them. The two participants who found using the frame markers explained: “I have never used it [to sum up] (*Daha önce hiç kullanmadım*)” (Participant 2). “I don’t know what to write after using them [another reason, for several reasons] (*Sonrasında ne yazacağımı bulamıyorum*)” (Participant 5). When the argumentative paragraphs of Participant 2 were investigated, it was discovered

that s/he could use other forms of label stages such as *'to conclude'* and *'in conclusion'*. Therefore, just like s/he stated s/he needed to gain more experience in using *'to sum up'*, since the underlying problem was not about the idea of using label stages. In addition, as it was discussed before, announcement goals subcategory of frame markers was a new concept for the participants of the current study. Therefore, Participant 5 might have needed more time to acquire how to use them. Also, the use of the sequencer *'another reason'* is syntactically more complex than *'firstly'*, *'secondly'* or *'finally'*, which were the mostly preferred ones in this study. Thus, it might explain why participant 5 could not figure out how to continue the sentence after using it.

Other two participants for whom employing the code glosses were difficult revealed: “I put it [that is] in the wrong place in the sentence (*Cümlede yanlış yerde kullanıyorum*)” (Participant 4). They [that is, in other words] are a little strange for me. I find it hard to explain what I have written. (*Bana biraz yabancı geliyorlar. Yazdığım şeyi tekrar açıklarken zorlanıyorum*)” (Participant 5). Ho and Li (2018) also found out that L2 writers have the tendency to be reluctant to reword their arguments for their readers. This reluctance might stem from Adel’s (2006) “Cultural Convention Factor” (p.58). Hinds (1987) argue that depending on one’s the culture, responsibilities of the writer and the reader may vary in terms of the organization of the paragraph writing and understanding the message. To illustrate, whereas in English it is the writers’ responsibility to convey their messages for their reader, for Eastern cultures readers could be responsible for comprehending what has been written. In this regard, being accustomed to Eastern culture (i.e., Turkish), Participant 5 might not feel the need for making sure his/her readers comprehended his/her argument. Therefore, as Crismore et. al. (1993) claim, while providing instruction on metadiscourse markers, such differences should be focused. That is why, it was decided to organize a revision session for the participants of the current study to revise the importance and use of these devices.

When it comes to the transition markers (Table 5.27), except from one participant who expressed no problems, it was observed that other six participants started

having more problems with additional transition markers one month after the training, despite the sample paragraphs provided.

Table 5. 27. The Comparison of Problematic TMs for the Participants in Progress Survey 1 and 2

TRANSITION MARKERS	Progress Survey 1	Progress Survey 2
	f	f
Additional Transition Markers		
What is more	2	5
Apart from	1	0
Besides	1	2
Moreover	1	2
Furthermore	0	1
Comparative Transition Markers		
Nonetheless	3	3
Nevertheless	2	2
Whereas	2	3
Although	1	0
Even though	1	0
In contrast (to)	1	0
In spite of	1	2
In the same way	1	1
Likewise	1	1
On the contrary	1	0
Rather than	1	1
Still	1	0
Though	1	0
When compared to	1	0
Consequential Transition Markers		
Hence	3	1
Thus	3	2
Lead to	1	0
Result in	1	1
Therefore	1	0

They explained that it was due to “not having familiarity with these markers” (f=4) and “not knowing what to write after these markers” (f=2). On the other hand, for comparative and consequential transition markers the opposite was witnessed since they tended to find less of these devices hard to employ after the sample paragraphs were provided for their self-study. Moreover, one participant for comparative and three participants for the consequential transition markers reported that they did not experience any problems with them. The participants who expressed their problems these some devices reported that it was due to “not having familiarity with them” (f=5), “not being sure how to use them grammatically” (f=2), and “not knowing their meaning” (f=2). In consideration of these findings, it was clear that the freshmen pre-service English language teachers were in need of further help in

using transition markers as well as frame markers and code glosses. That is why, another set of sample paragraphs that included the problematic interactive MDMs were provided for them for self-study. In addition, they were invited to the revision session in which the sample paragraphs would be examined, participants' questions would be answered, and these problematic devices would be revised.

The last section of the second progress questionnaire focused on participants' evaluations on the content, methodology and materials used in these student specific trainings. Hence, the questions asked in this section involved the difficulty of corpus informed materials. Similar to the first progress survey, the participants were asked to rate the difficulty of the concordance lines via 5-point Likert scale. The mean was 2.42 which means it was not hard for them analyze since '2' corresponds to 'easy'.

The participants were also asked questions on the effectiveness and the adequacy of the methodology and the materials of the trainings. All the participants reported that the student specific and corpus informed materials were effective because it "improved their MDM use" (f=3) "adapted contemporary methodologies" (f=1), "contained a lot of practice" (f=1) and "was student specific" (f=1). Moreover, six of the participants found the training adequate since "there were a variety of materials" (f=4) and "the materials were quality" (f=2). Participant 4 who did not find the trainings adequate explained:

Because of the online education format, I do not find the training adequate in terms of materials and methodology as it cannot compensate for the face-to-face education (*Bulduğumuz online eğitim dolayısıyla kaynak ve yöntem açısından eğitimi yeterli bulmuyorum çünkü yüz yüze okulda gerçekleşen eğitimin yerine geçemez*) (Participant 4)

Similarly, when the participants were asked about the advantages and disadvantages of the trainings similar themes emerged (Figure 5.5). The findings about the distant education format in this study goes hand in hand with Istifci (2017) and Bagriaçık Yılmaz (2019) who also found that Turkish students favor face-to-face education more.

enabling to write better (4)	taking place in online format (4)
containing practice (2)	
raising awareness on the use of MDMs (1)	
receiving feedback (1)	

Figure 5. 5. Advantages and Disadvantages of the Interactive Metadiscourse Marker Trainings for Freshmen Pre-Service English Language Teachers

When it comes to participants' perceptions on their progress in using MDMs it is observed that all of them agree that they improved their interactive metadiscourse marker use thanks to the trainings and four of them elaborated on their progress: "I improve, the practice we have been doing pays off (*Gelişiyorum, yaptığımız pratiklerin geri dönüşü oluyor*)" (Participant 1). "Yes, practicing improves my vocabulary and paragraph writing skills. (*Evet, alıştırma yapmak kelime hazinem ve paragraf yazma becerimi geliştiriyor*)" (Participant 3). "Yes, because I am aware of the progress I have made in my writings in English (*Düşünüyorum çünkü yazdığım İngilizce yazılarda gelişmelerimi fark ediyorum*)" (Participant 4).

Yes, understanding and learning the basics of the structures that I used to employ without paying attention to their usages gives me confidence (*Evet, genel olarak daha önce kullanırken kurallarına dikkat etmediğim yapıların temeline inmek temelini anlamak yazarken insana daha fazla özgüven veriyor*) (Participant 2)

Moreover, four of them indicated that their ideas on the importance of interactive metadiscourse markers have changed since "they became more aware of its effects on a coherent paragraph" (f=4). Three other participants explained that their ideas have not changed because "they had already been aware of the importance of these devices" (f=3). Furthermore, almost all the participants expressed that they feel more confident in using these devices after the trainings because they "learnt these devices' usage" (f=3), "became aware of these markers' importance" (f=2) "did practice" (f=1), "revised" (f=1), and "received feedback" (f=1). However, participant 6 did not experience any change in his/her confidence level.

Finally, Cheng and Steffensen (1996) and Intraprawat and Steffesen (1995) put forward that writing is improved when learners write with an awareness of metadiscourse. Quite similarly, all the participants accepted that their general writing skills have also develop thanks to these student-specific trainings: “Yes, because in the trainings we received the awareness of writing good paragraphs is raised a lot. (*Evet, düşünüyorum çünkü aldığımız derslerde bunun farkındalığı çok kez gösterilmekte*)” (Participant 1). “Yes, writing a paragraph each week contributes to that. (*Evet her hafta bir paragraf yazmak sayesinde*)” (Participant 6).

“Yes, because we do not study only for metadiscourse but also for paragraphs, I really think my writing skills improved (*Evet, sadece üst söylem değil paragraf da çalıştığımızdan dolayı yazma becerimin gerçekten geliştiği fikrindeyim*)” (Participant 2).

“Yes, because the importance of linkers on coherence in a paragraph is big and while I am learning more thoroughly, I am writing better paragraphs (*Evet düşünüyorum bağlaçların paragraf akışı yakalamada önemi büyük ve bilgilerim tam oturdukça daha iyi yazılar yazıyorum*)” (Participant 3).

Overall, the aim of this survey was to get feedback from the participants to be able to address to their needs more effectively. The findings yielded several significant issues. First, it was found that none of the concordance lines or writing tasks were particularly difficult for any of the participants to be restrained from learning. Second, the results made the researcher aware of the problematic interactive metadiscourse markers and unveil the reasons behind it. Thus, a revision session and three more sample paragraphs that contained the problematic devices from the TOEFL-High corpus were made available study for the participants. Thirdly, it was discovered that the participants were overall satisfied with the training, the corpus-informed materials and the data driven learning methodology and they observed the progress in their writing and the use of metadiscourse markers. Also, it was clear that they raised awareness on the importance of using these devices.

5.4. The Long-Term Effect of DDL on the Use of Interactive Metadiscourse Markers in Freshmen Pre-Service English Language Teachers' Argumentative Paragraphs

This section scrutinizes the long-term effect of 5-week student specific interactive metadiscourse marker training that adopted DDL methodology on the participants' use of interactive MDMs and their attitudes towards trainings in two sub-sections. Section 5.4.1 presents the quantitative findings of the post-training argumentative paragraphs and section 5.4.2 demonstrates the qualitative findings of the post-survey.

5.4.1. Findings of the Post Training Argumentative Paragraphs

Three weeks after the 5-week student specific interactive MDM training, which adopted data driven learning method and included corpus-informed materials, freshmen pre-service English language teachers sat for the post-test.

Table 5. 28. Descriptive Statistics of Interactive MDMs in Participants' Post-Training Paragraphs

	TM-AD		TM-COM		TM-CON		FM		CDG		TOTAL(T)		Words
	f	%	f	%	f	%	f	%	f	%	f	%	
1	1	0.52	3	1.57	1	0.52	2	1.05	3	1.57	10	5.24	191
2	8	1.65	1	0.21	10	2.06	5	1.03	2	0.41	26	5.36	485
3	0	0	2	1.23	0	0	4	2.45	1	0.61	7	4.29	163
4	0	0	2	1.11	1	0.56	0	0	1	0.56	4	2.22	180
5	4	2.23	2	1.12	0	0	1	0.56	0	0	7	3.91	179
6	3	1.49	1	0.50	1	0.50	1	0.60	3	1.49	9	4.46	202
7	5	2.53	4	2.02	3	1.52	4	2.02	0	0	16	8.08	198
T	21	1.31	15	0.93	16	1	17	1.06	10	0.62	79	4.94	1598
M	3	-	2.14	-	2.28	-	2.42	-	1.42	-	11.28	-	228.28
%	26.58		18.98		20.25		21.51		12.68		100		

Table 5.28 shows how frequently the participants of the current study employed transitions, frame markers and code glosses in their post-training argumentative paragraphs. Despite being statistically insignificant ($Z = -0.67$, $P = .49$), it was observed that freshmen pre-service English language teachers employed less

interactive MDMs in their post-training paragraphs (n= 79) than in their pre-training paragraphs (n= 81). Sancak (2019) suggest that employing more interactive devices in writings does not always correlate with more successful paragraphs because quality of these markers is also essential. Therefore, this finding might mean that the participants of the current study began using these devices in a more aware and selective way, which in return resulted in employing less devices.

In addition, it was witnessed that among 79 interactive metadiscourse markers, the participants again mostly employed transition markers just like in their pre-training argumentative paragraphs, which is congruent with the relevant studies in the literature (e.g., Hyland and Tse, 2004; Chan & Tan, 2010; Anwardeen et al., 2013; Dobbs, 2014; Mohamed & Rashid, 2017; Ho & Li, 2018; Yüksel & Kavanoz, 2018; Qin & Ucelli, 2018; Sancak, 2019). However, there was a decrease in the number transition markers in their post-training paragraphs (65.81%) since they had used more transition markers in their pre-training paragraphs (79%). However, this decrease was not statistically significant ($Z= -1.18$, $P= .23$). This situation might be explained by the increase in the number of frame markers and code glosses in participants' post-training argumentative paragraphs (21.51% and 12.68% respectively). To explain, in the participants' pre-training paragraphs, the frequencies of code glosses and frame markers were 11.11% and 9.87% respectively, which led to the dominance of transition markers. However, in their post-training paragraphs because the frequencies of these devices increased it could have reduced the number of transition markers.

Furthermore, in the category of transition markers, the participants mostly employed additional transition markers (26.58%) followed by consequential transition markers (20.25%) and comparative transition markers (18.98%) respectively, whereas they had used consequential transition markers (38.27%) most frequently followed by additional transition markers (22.22%) and comparative transition markers (18.51%) in their pre-training argumentative paragraphs. To test the significance of these changes in the frequencies of these devices, three Wilcoxon matched pairs signed ranks tests were run. it was found out that while the increase in the frequencies of additional ($Z= -0.33$, $P= .73$) and

comparative ($Z = -0.08$, $P = .93$) transition markers are statistically not meaningful, freshmen pre-service English language teachers used consequential transition markers at a significantly lower frequency ($Z = -2.02$, $P = .04$). This could mean that freshmen pre-service English language teachers changed their argument strategy in their writings after the trainings in that they started to adopt listing arguments in favor of their prepositions strategy rather than assuring their arguments while conveying their messages to their readers. Moreover, comparative transition markers' staying as the least frequent transition markers might indicate the participants' awareness on argumentative genre (Adel, 2006), since these devices are not used very frequently in this genre (Chan and Tan, 2010; Andwardeen et. al., 2013 and Asassfeh et.al, 2013).

After transition markers, frame markers (21.51%) accounted for the second most frequent interactive metadiscourse marker category followed by code glosses (12.68%). This result is also different from participants' pre-training argumentative paragraphs because they had used code glosses (11.11%) more frequently than frame markers (9.87%) in their pre-training paragraphs. Almost half of the participants of the current study had not employed any frame markers in their argumentative paragraphs prior to the student specific trainings because of their misconceptualization of these markers. That is why, it was revealed that the participants of the current study needed to employ frame markers more frequently (see Section 5.2). Indeed, right after the training on frame markers, the participants raised awareness on their importance and usage (see Section 4.3.5). Therefore, they started to use them in their argumentative paragraphs much more frequently. This could account for the reason why the frequency of frame markers surpassed code glosses in participants' post-training argumentative paragraphs. However, it does not mean that code glosses were employed insufficiently in the post-training argumentative paragraphs because when the frequencies of these devices in participants pre- (11.11%) and post- (12.68%) paragraphs are compared, it is observed that they actually utilized them more frequently. However, neither the differences in frame markers ($Z = -1.15$, $P = .24$) nor in code glosses ($Z = 0.33$, $P = .73$) in participants' pre- and post- training paragraphs were statistically meaningful.

Table 5. 29. Forms, Frequency and Appropriacy of Interactive MDMs in Post-Training Tests

Interactive MDMs	f	%	IU (G)	IU (C)	OU	UU
Additional Transition Markers						1
and	16	30.76	-	1	1	
also	3	5.76	-	-	-	
at the same time	1	1.92	-	-	-	
or	1	1.92	-	-	-	
Comparative Transition Markers						3
but	4	7.69	-	-	-	
however	3	5.76	-	-	-	
while	2	3.84	-	-	-	
although	1	1.92	-	-	-	
as opposed to that	1	1.92	-	-	-	
even though	1	1.92	-	-	-	
still	1	1.92	-	-	-	
whereas	1	1.92	-	-	-	
though	1	1.92	-	1	-	
Consequential Transition Markers						2
because	6	11.53	-	-	-	
since	5	9.61	-	-	-	
because of	3	5.76	-	-	-	
so	3	5.76	-	-	1	
the reason for that	3	5.76	-	-	-	
Frame Markers						4
firstly	2	11.76	-	-	-	
In conclusion	2	11.76	-	-	-	
In short	2	11.76	-	-	-	
secondly	2	11.76	-	-	-	
another reason why	1	5.88	-	-	-	
for two reasons	1	5.88	-	-	-	
here are my arguments why	1	5.88	-	-	-	
I have a few reasons for	1	5.88	-	-	-	
lastly	1	5.88	-	-	-	
one of them being	1	5.88	-	-	-	
There are specific reasons	1	5.88	-	-	-	
thirdly	1	5.88	1	-	-	
To conclude	1	5.88	-	-	-	
Code Glosses						3
Such as	4	40	1	-	-	
for example	3	30	-	-	-	
And such	1	10	-	-	-	
Let's say	1	10	-	-	-	
To explain	1	10	-	-	-	

With regard to the variety of interactive metadiscourse markers, in participants' pre-training paragraphs, the most frequent forms of transition markers were 'and' for addition (21.87%), 'but' for comparison (10.93%) and 'because' for consequence (9.36%), which represented 42.16% of the transitions. In their post-training paragraphs, the most frequent the forms did not change. Again, they were 'and' for addition (30.76%), 'but' for comparison (7.69%) and 'because' for consequence

(11.53%) and together they accounted for almost half of the transitions (49,98%) (Table 5.29). This finding is not quite surprising as the relevant studies in the literature report the same (Martinez, 2002; Anwardeen et al., 2013; Ho & Li, 2018; Yüksel & Kavanoz, 2018; Dumlao & Wilang, 2019; Qin & Ucelli, 2019; Sancak, 2019).

Furthermore, the same findings had been discovered in the participants' argumentative paragraphs written in the first and second weeks of the trainings when additional and comparative transition markers were taught respectively. Yet, in the short term, freshmen pre-service English language teachers had employed other forms of consequential transition markers rather than 'because'. In this sense, it can be said that student specific training on consequential transition markers were more effective in the short-term in encouraging learners to employ other forms of these devices more frequently. During the stimulated recall sessions, the participants were shown their argumentative paragraphs and asked about the reasons behind employing these devices mostly. They reported that it derived from the fact that 'and', 'but' or 'because' tend to come to their mind before other forms: "In fact, yes, I know that I need to use more variety of these things but it [and] comes to my mind first (*Aslında evet artık daha çeşitli şeyler kullanmam lazım bunu biliyorum ama aklıma ilk o geliyor*)" (Participant 1). "Well, it [because] directly comes to my mind, you know I do not even think about it, I just write it (*Yani direkt aklıma o geliyor hani düşünmüyorum bile direkt yapıştırıyorum*)" (Participant 6).

Yes, I know what they [other forms] are and how they [other forms] are used but they [other forms] don't come to my mind first and they [other forms] feel strange (*Evet, ne olduklarını, nasıl kullanıldıklarını biliyorum ama ilk önce onlar aklıma gelmiyor. Ve yabancılaşıyorlar*) (Participant 5)

On the other hand, apart from 'and', 'but' and 'because', it can be seen from table 5.4 and table 5.29 that the participants employed different transition markers in their pre- and post- training argumentative paragraphs. This might indicate that they acquired awareness about using more variety of transition markers and they continued to do so even after three weeks when the student specific trainings were over. Escobar and Fernandez (2017) also suggest that thanks to instruction on

metadiscourse markers, language learners become more aware of the relation between employment of these devices and writing quality paragraphs. Still, when tables 5.7, 5.11 and 5.15 are also taken into consideration, it could be observed that right after the trainings, freshmen pre-service English language teachers employed a much more variety of transition markers. This might point that the student specific trainings on transition markers were more successful in the short term than in the long term in terms of encouraging the learners to use a variety of these devices.

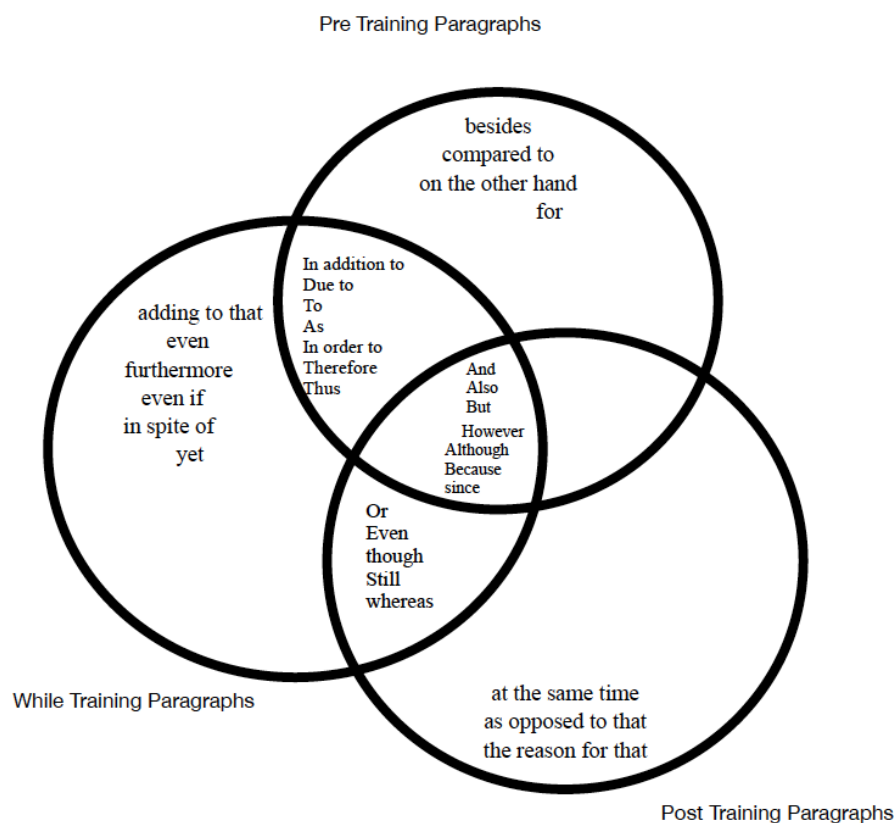


Figure 5. 6. Transition Markers Employed by the Participants in Their Pre- While- and Post- Training Paragraphs

Figure 5.6 shows that participants of the current study were able to reuse some of these devices that they used in their while-training paragraphs for the first time in their post-training paragraphs, which may mean that they could built confidence in using these devices. Nonetheless, it can also be observed from figure 5.6 that the participants were conservative about using certain transition markers since they

appeared in all their paragraphs. This could emerge due to hesitating to employ recently learnt markers.

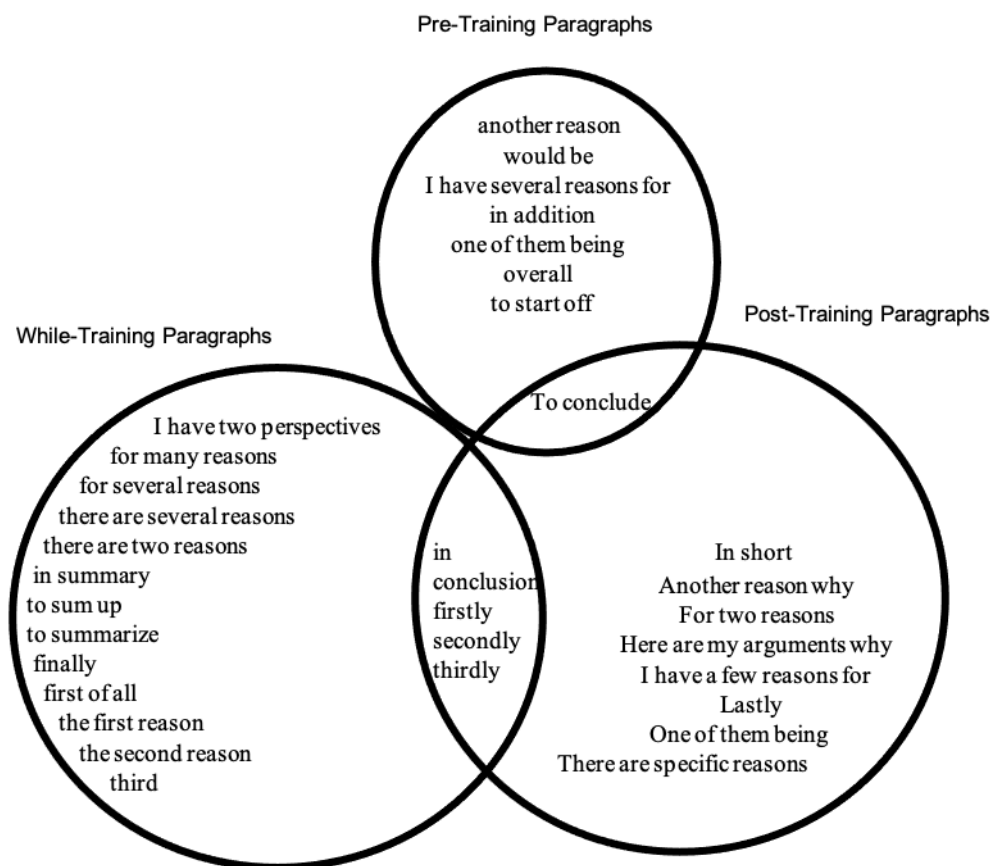


Figure 5. 7. Frame Markers Employed by the Participants in Their Pre-, While- and Post- Training Paragraphs

When it comes to frame markers, it is observed from tables 5.4 and 5.29 that the participants of the current study employed more variety of these devices in addition to using them more frequently in their post-training paragraphs than in their pre-training paragraphs. Nevertheless, comparison of tables 5.4, 5.20 and 5.29 reveals that they tended to use frame markers even more frequently and, in more variety, immediately after the student specific and corpus informed training on frame markers (Figure 5.7). Thus, it can be concluded that thanks to the trainings, freshmen pre-service English language teachers clearly became aware of the importance of frame markers and to organize their paragraphs better they employed a more variety of them both in their while and post training argumentative paragraphs although the short-term effect of this training look more intense.

Likewise, Kaya (2019) also found out that upon training her learners on frame markers, they began to recognize more devices and improve their repertoire.

For the code glosses, tables 5.4, 5.24 and 5.29 show that although participants of the current study employed more variety of these devices immediately after the student specific trainings, for their post-training argumentative paragraphs they seemed to use a more limited repertoire. However, it is worth to note that they mostly utilized different forms of code glosses in their paragraphs, which might mean that they improved their knowledge on the various forms of code glosses and preferred to use the ones they had just learnt, instead of the ones they had already known since the frequency of these devices increased both in while- and post-training paragraphs (Figure 5.8).

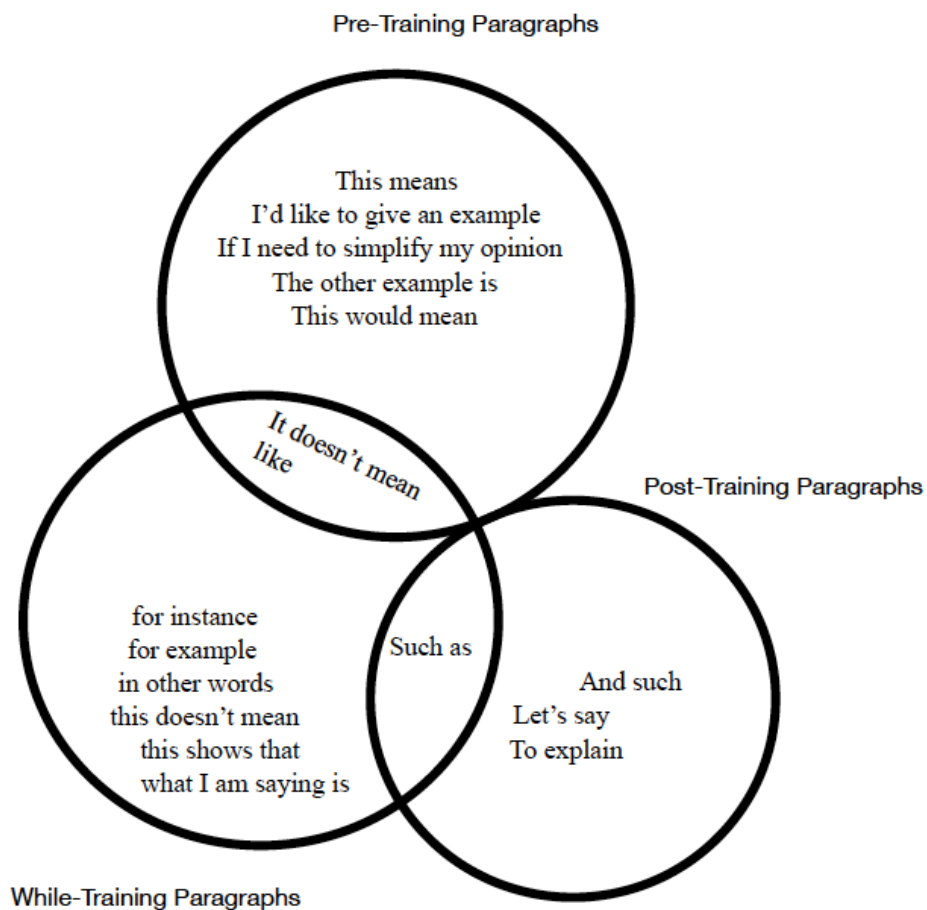


Figure 5. 8. Code Glosses Employed by the Participants in Their Pre-, While and Post- Training Paragraphs

Overall, the student specific interactive metadiscourse marker training seems to be more effective in the short-term rather than long-term in terms of increasing variety. Yet, it looks as if it worked the best for the frame markers in this regard in the long run.

Another issue which the participants of the current study needed to work on was to use interactive metadiscourse markers more appropriately in terms of grammar, context, overuse, and underuse.

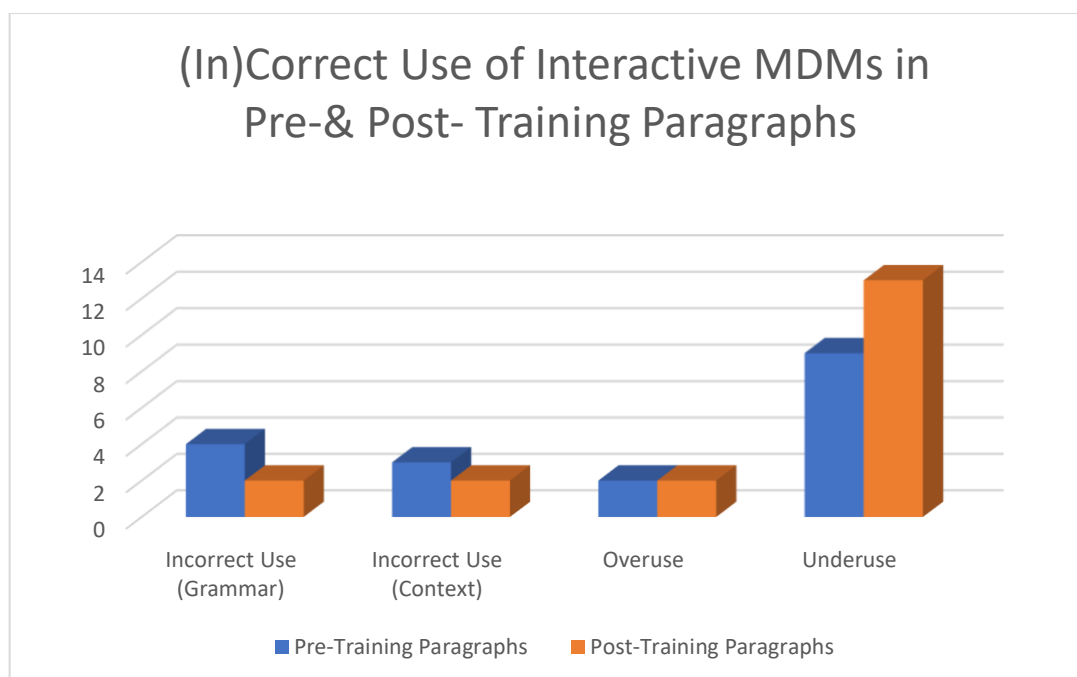


Figure 5. 9. Distribution of (In)correct Use of MDMs in Pre- & Post-Tests

Unfortunately, Figure 5.9 demonstrates that the problem of underusing these devices, which leads to not being able to convey their messages to their readers, increased upon 5-week student specific trainings. Some examples from the post-training paragraphs in this regard are shown below:

Example 5. 25. Underuse of a FM in Post-Test (Student Sentence, Participant 5)

(1) In my opinion, it is better for parents to raise their children in the countryside than in a large city. X (2) If children are raised in the countryside, they will be able to interact with the nature.

Example 5. 26. Underuse of a Comparative TM in Post-Test (Student Sentence, Participant 6)

(1) For example, they would go to higher quality schools, or I thought that growing more internally with technology could affect them better. X (2) After reading a few articles and watching videos about kids growing up away from the city, my mind changed.

Example 5. 27. Underuse of a CDG in Post-Test (Student Sentence, Participant 3)

(1) Firstly, the biggest difference between the two is that it is easier to access school, healthcare and such in a city rather than in the countryside. X (2) When children are sick, it would be easier for them to get treated in the city.

During stimulated recall sessions participants were shown all their argumentative paragraphs and were asked about the reasons why they had not employed some interactive MDMs and what markers they would have used for the places where they had underused these devices. Having been mostly successful at figuring out what had been missing in their paragraphs and where, they explained that it was mainly due to writing quickly and without revising what they had written: “I do not really like writing, so I just want to write it quickly and get rid of it (*Ben yazmayı pek sevmiyorum o yüzden hemen yazıp vermek istedim*)” (Participant 1).

Well, sometimes I write really quickly or generally it is better when I plan but when I write fast usually, I make more mistakes. It is all because I do not plan (*Ya bazen çok hızlı yazıyorum. Ya da genel olarak bazen bir şeyi çok programlayıp yapınca çok iyi oluyor ama hızlı yaptığımda genelde daha çok hata oluyor. Hep de işte böyle programlayıp yapamadığım için*) (Participant 4).

“I write in a rush. I want to finish writing as soon as possible. I write quickly to finish it soon, but I know these structures, yes. (*Acele bir şekilde yazıyorum. Bir an önce bitirmek istiyorum. Sürekli yapıyorum de bitsin diye hızlı hızlı yazıyorum. Yoksa yapıları biliyorum evet*)” (Participant 5).

“Generally, I submit it without revising. I mean, if I revise, generally these things are clear, it is not because I do not know them. (*Genelde hiç üzerinden bir kez daha geçmeden direkt gönderiyorum. Hani okusam, genel olarak belli yani olması gereken şeyler, bilmiyorum diye değil*)” (Participant 6).

Because while writing, I focused on the word limit. I mean, I did not pay attention to the structures. I might have just stopped when I reached the word limit (*Yazarken çünkü ben kelime limitine ulaşayım diye odaklandım*

ben. Böyle hani bu yapılar olsun diye dikkat etmedim. Kelime sayısına ulaşınca direkt bırakmış olabilirim) (Participant 7)

This finding is not surprising as Zamel (1983), Cheng and Steffensen (1996), Algı (2012) and Uluçay (2014) also pointed to the issue of EFL learners' not revising their writings before submitting them. Therefore, they should be encouraged to review their writings by raising their awareness on this issue.

Regarding incorrect use of interactive metadiscourse markers in terms of grammar and/or context, Figure 5.9 reveals that the participants had less problems in their post-training argumentative paragraphs than in their pre-training argumentative paragraphs. Therefore, it can be concluded that the student specific corpus informed trainings were successful in enabling the participants of the current study to use these markers more appropriately. This finding is coherent with Taghizadeh and Tajabadi (2013) who also found out that specific metadiscourse marker instruction improves EFL learners' correct use of these devices. The incorrect forms in participants' post-training paragraphs are introduced below.

Example 5. 28. Incorrect Use of 'and' Contextually in Post-Test (Student Paragraph, Participant 2)

since you don't have any experience **and** back in time everyone in your town were good people it can make you a person who believes the people around more likely than the people who were grown up in the city

In this example, the relation between the proposition linked with 'and' is consequential. Therefore, instead of 'and' a consequential transition marker should have been used. Since the participants had already been using 'and' before the trainings, this mistake could be regarded as a careless one (Algı, 2012; Uluçay, 2014)

Example 5. 29. Incorrect Use of 'though' Contextually in Post-Test (Student Sentence, Participant 3)

The environment one lives and grows in has an enormous effect on who they become, **though** people have different opinions when it comes to deciding whether it is better for parents to raise their kids in a large city or the countryside.

In this example, instead of *though* a consequential transition marker should have been employed since there is a cause-and-effect relation between the propositions linked with *though*. Interestingly, it has been discovered that although *though* was included in the teaching material, this was the first time it was used. Therefore, this mistake might actually mean that participant 3 was in the process of learning this marker (Vosniadou and Brewer, 1987; Hesketh 1997).

Example 5. 30. Incorrect Use of ‘thirdly’ grammatically in Post-Test (Student Sentence, Participant 2)

(1) **Thirdly**, Language and the city culture. (2) It is important because the language and the culture might be different and even can chance between city to city that also cause some problems.

Thirdly syntactically requires a full sentence following it; however, in this example it was used with a noun phrase, which led to ungrammatical use.

Example 5. 31. Incorrect Use of ‘such as’ Grammatically in Post-Test (Student Sentence, Participant 1)

But when I think of it now, I don't agree with myself because, there are specific reasons why it should be. **Such as**, a kid who has raised in a city then in countryside occasionally has a high intellectual level.

Syntactically *such as* can be used with gerund or to infinitive structures, noun clauses or noun phrases, but it cannot be followed by a full sentence. That is why, it was used grammatically incorrectly in example 5.31.

Though learnt recently during the trainings, both *thirdly* and *such as* had already been used in participants' while-training argumentative paragraphs without any problems. Therefore, these occurrences here might imply two issues. Firstly, it might stem from the participants' reckless way of writing. Alternatively, it might signal the issue of forgetting the usages of some newly learnt items.

When it comes to the problem of overuse, no change was observed after the trainings (Figure 5.9) since the participants of the current study overused two

devices in their pre-training argumentative paragraphs, just like they did in their post-training paragraphs.

Example 5. 32. Overuse of ‘and’ in Post-Test (Student Sentence, Participant 7)

And lastly, I picked the city because of how alive it is.

Example 5. 33. Overuse of ‘so’ in Post-Test (Student Sentence, Participant 1)

So here are my arguments why countryside child raising might not be the best choice.

However, during the stimulated recall sessions it was discovered that the participants were in fact aware of the overuse issue and similar to the findings of Qin and Uccelli (2019), the reason behind this problem was the register difference between spoken and written discourse (See Example 22).

In conclusion, it had been determined that the participants of the current study had two main problems while using interactive metadiscourse markers. The first problem they encountered was related to using a more variety of these devices, rather than the basics. That is why, during 5-week student specific trainings that adopted DDL methodology included the concordance lines of the most frequent devices in TOEFL-High corpus to let the participants be familiar with them and analyze their usage. The comparison of the devices used in their pre- and post-training argumentative paragraphs revealed that they indeed started using a more variety of interactive metadiscourse markers, especially frame markers, upon trainings. Therefore, it can be drawn that the training lets the participants employ more variety of interactive metadiscourse markers in the long run whereas the immediate effect tends to be more powerful.

The second problem they faced was about appropriate use of these devices. The most prominent problem was underusing some markers followed by incorrect use of them in terms of grammar and context, and occasional overusing certain devices. To this end, the trainings also focused on teaching the correct uses of interactive metadiscourse markers included in the corpus informed materials through guided

questions. Upon trainings it was discovered that participants improved their use of these devices in terms of grammar and context and this improvement seemed to be stronger in the long-term, which could be explained by the nature of the learning process that requires time and exposure (Krashen and Selinger, 1975; Krashen 1976) as well the corrective feedback the participants received (Ferris and Helt, 2000). However, it was found out that the problem of underusing and overusing certain devices persisted. Yet, thanks to the qualitative data, it was figured out that it was due to not revising their writings before submission. Therefore, it could be suggested that EFL learners need to raise awareness on the writing process that requires revising, editing, and drafting.

5.4.2. The Findings of the Post Survey

The quantitative finding of this study suggested that the 5-week long student specific interactive metadiscourse marker training that adopted data driven learning methodology enabled the participants of the current study to use a more variety of these devices and to employ them more appropriately in terms of the grammar and context of these markers. However, to be able account for the effectiveness of the training, more profound data were required. In this regard, to have in-depth understanding of the participants' attitudes towards these devices and the training and the reasons behind participants' employment and/or avoiding certain interactive MDMs the post survey was conducted after the trainings were over. In this section, the results of this survey are scrutinized.

The post survey included three sections. The first section of the survey focused on the task difficulty of the post-training task and its relation to the training that they completed. Section 4.3.2.4 elaborates on the findings of this section and Figure 4.10 and 4.11 show participants perceived task difficulty level before and after the student specific interactive metadiscourse marker training. It was found out that the participants found the task easier to write because they “were able to explain themselves more easily” (f=1), “were able to write in a more productive way” (f=1), “make less mistakes” (f=1) and “know which devices to employ while writing” (f=4).

The second section of the post survey uncovered the interactive MDMs that the participants of the current study still found difficult to employ after the trainings, two sets of sample paragraphs and the revision session which took place the week after the trainings finished. Table 5.30 demonstrates the problematic devices together with their frequencies and compares them with the two progress surveys the participants had already done.

Table 5. 30. The Comparison of Problematic Interactive MDMs in Progress and Post Surveys

Interactive Metadiscourse Markers	Progress Survey 1 f	Progress Survey 2 f	Post Survey f
Additional Transition Markers			
what is more	2	5	3
apart from	1	0	0
besides	1	2	1
moreover	1	2	0
furthermore	0	1	0
Comparative Transition Markers			
nonetheless	3	3	2
nevertheless	2	2	1
whereas	2	3	2
although	1	0	0
even though	1	0	0
in contrast (to)	1	0	0
in spite of	1	2	1
in the same way	1	1	0
likewise	1	1	1
on the contrary	1	0	0
rather than	1	1	1
still	1	0	0
though	1	0	0
when compared to	1	0	0
Consequential Transition Markers			
hence	3	1	4
thus	3	2	2
lead to	1	0	0
result in	1	1	0
therefore	1	0	0
Frame Markers			
there are several reasons	-	0	2
there are many reasons	-	0	1
for several reasons	-	1	1
another reason	-	1	0
to sum up	-	1	0
Code Glosses			
that is	-	2	2
in other words	-	1	1

Accordingly, it was observed that for additional transition markers they found ‘*what is more*’ and ‘*besides*’ problematic in their post survey, unlike progress surveys 1

and 2 which included more additional transition markers. The participants stated that they find those markers hard because “they did not have much experience with using them” (f=2) and “it feels strange to use it [what is more] in the paragraph, although s/he knows its usage” (f=1). Likewise, for comparative transition markers it is seen that the participants found *‘nonetheless’*, *‘nevertheless’*, *‘whereas’*, *‘in spite of’*, *‘likewise’* and *‘rather than’* hard to use in the post survey, which are less in quantity when compared to the progress surveys. They explained that it was due to “not having enough practice” (f=1) and “experience” (f=2) with those devices. When it comes to consequential transition markers, only two markers *‘hence’* and *‘thus’* are witnessed to be still problematic for the participants. It means that they were able to get familiarized with the other forms they mentioned in the progress surveys. The participants reported that these two structures were particularly hard for them since “they had never come across them until university” (f=1), “they get confused about their meaning” (f=2) and “they prefer using other alternatives to them” (f=1).

It can be observed that two participants found ‘announcement goals’ sub-category of frame markers difficult to use, but they resolved their problems with ‘sequencers’ and ‘label stages’ sub-categories. They suggested that it stemmed from the fact that “they had not practiced using them enough” (f=2).

Finally, for the code glosses, two participants selected *‘in other words’* and *‘that is’* to be problematic for them. They claimed that it was because they find it hard “to rephrase what they had written” (f=2). This suggests that they refrained from using these devices not because they do not know how to use them but because they find explaining their propositions further daunting. Ho and Li (2018) who worked with Chinese EFL learners also came up with the same finding. Hence, it could be plausible to explain this issue by the differences in rhetoric, because in Eastern cultures such as Turkey readers tend to be more responsible for comprehending the message given, rather than Western cultures where it is the writers’ duty to make sure their text is able to convey the message (Adel, 1987; Hinds, 1987; Crismore et. al., 1993)

A set of sample paragraphs had been provided with the participants of the current study after each progress survey to enhance the use of the devices that they reported to be problematic. To make sure they were effective, the post survey asked the participants whether sample paragraphs were beneficial. Figure 4.9 presents the participants ratings for the usefulness of sample paragraphs. On the whole, it can be said that they found them quite useful since the mean score of their ratings was 4.57. They reported that they were able to “practice more” (f=1), “revise” (f=1), “compare their writings to these paragraphs” (f=1) and “observe more examples” (f=4) thanks to sample paragraphs. Moreover, upon this 5-week long training, a revision session had been organized for participants to ask any of their questions regarding the usage of these devices. They also found this session very beneficial (M=4.28) and expressed that it was a good opportunity to “revise” (f=4) and “notice the parts that they could not have learnt before” (f=3).

Yet, as the themes of ‘not having enough practice’ and ‘experience’ emerged a lot while explaining why the participants tended to find certain markers hard to use, during the post interview they were asked what else they had needed to be able to use these devices. They explained that rather than materials or extra sessions, they needed to study for them on their own, but they did not:

“In fact, I do not revise after the lessons. I mean I should have analyzed the sample paragraphs you sent us (*Aslında ben dersten başka çok dönüp de bakmıyorum. Mesela sizin yolladığınız örnekleri açıp okumam gerekirdi*)” (Participant 1).

“Well, it’s about me. I do not use them much and it gets harder when I continue not using them. Maybe if I tried once or twice, I could use them (*Ya bu biraz benimle kaynaklı. Çok sık kullanmıyorum ve kullanmadıkça da kayıyor. Aslında bir iki kere denesem olacak belki de*)” (Participant 7).

The last section of the survey aimed at discovering the participants’ attitudes and perceptions towards the student specific interactive metadiscourse marker training and the use of corpus and corpus-informed materials for the training. To draw profound conclusions, the participants were asked detailed questions about each part of the trainings (i.e., analyze, discover, practice, and write) and the feedback they received about the aim, advantages, and disadvantages of them.

To start with the 'analyze' part, the participants were first asked to rate the difficulty level of the concordance lines via 5-point Likert scale. As the mean score was 2.28, it was concluded that they did not find those lines difficult to prevent them from making analyses. Moreover, the participants were aware of the aim of this part which they put as to "revise" (f=1), "exemplify" (f=2), and "investigate" (f=4). Finally, none of the participants reported any disadvantages for this part but they indicated several advantages such as "understanding the usages of interactive metadiscourse markers better" (f=3), "improving in how to use these devices" (f=3), "observing authentic examples" (f=3), and "providing the opportunity to check their existing knowledge" (f=1). Similar to what freshmen pre-service English language teachers reported, Frankenberg-Garcia (2012) also found out that corpus examples are effective in comprehending the usages of some structures.

For the 'discover' part, the participant confirmed that the questions, which aimed at guiding them to come up with plausible findings, were clear and purposeful (M= 4,14). They were also aware of the focus of this part since they stated it was to "make the analyses into rules" (f=5) and "realize why some markers are used" (f=2). The participants did not report any disadvantages regarding this part, but for its advantages they wrote "the guided questions let them realize the tiny details that they had not known" (f=2) and "they learnt how to and in which context they required to use certain markers" (f=5).

'Practice' part of the training included exercises such as fill in the blanks or rewrite to enable participants to make sure they are able to use them. The mean score of their perceived difficulty for this part was 2.85. It can be interpreted that the participants found them neither easy nor difficult since it is closer to number '3' that stands for 'neither easy nor difficult'. Considering the fact that the practice part took place while the researcher was available to provide immediate help and feedback, this finding could be interpreted as a positive issue because as Krashen (1987) state, what learners receive should be a little above their actual level to promote learning. It was again found out that the aims of this part were straightforward since the participants expressed it was to "lock the structures in" (f=2), "improve themselves" (f=1), and "put the theory into practice" (f=4). For this parts' advantages, the

participant put “using what they had learnt” (f=5) and “raising awareness” (f=2). Therefore, it can be concluded that this part of the training was useful for participants.

Lastly, the ‘write’ part took place was when the participants of the current study were asked to write their while-training argumentative paragraphs. Although it had been asked before, the post questionnaire again asked whether any tasks were particularly difficult for the participants. The mean score was 4.14, which means they did not find them hard. They indicated that the aim of this part was to “practice more” (f=3), “test themselves” (f=3) and “improve their writing skills” (f=1). They also expressed that “improving their writing” (f=3), “improving their use of interactive metadiscourse markers” (f=1), “testing their abilities in writing” (f=1) and “being prepared for TOEFL exam” (f=2) were the advantages of this part, whereas the only disadvantage they reported was “being tired after writing each week” (f=2). Thus, it can be deduced that freshmen year pre-service English language teachers were aware of the benefits they gained in this part of the training.

Upon trainings each week, the participants received feedback for their while-treatment paragraphs within 2-3 days. They stated that the feedback they received was clear (M=4.42). Moreover, Figure 4.7 demonstrates the effectiveness of the feedback (M=4.71). The participants clarified that it was because they were able to “see their mistakes” (f=4), “improve their writing by learning from their mistakes” (f=2), and “realize the parts they needed to improve” (f=1). This finding is in line with the other studies in the literature in that language learners are inclined to value feedback provided by their teachers (Radecki & Swales 1988; Leki 1991; Enginarlar 1993; Ferris 1995).

All in all, it can be inferred from the findings that freshmen pre-service English language teachers were aware of the aims and their gains of each part of the student specific and corpus informed materials and DDL trainings. It was also understood that none of the parts were difficult or confusing for them to interrupt their learning.

To understand the participants' attitudes and perceptions towards the use of corpus and corpus-informed materials for the training, the post survey asked five questions. The first question was about the aim of the corpus use. The participants stated that it was to "provide them with authentic examples" (f=7) and "let them learn the interactive metadiscourse markers usage by discovery" (f=1). Thus, it can be concluded that they were aware of the aims of the use of corpus in their trainings. When they were asked whether using corpus enabled them to learn interactive metadiscourse markers, four participants agreed and three of them strongly agreed (M=4.42). Two of them further explained: "To read more examples helped me to improve myself in using metadiscourse markers" (Participant 1). "Observing metadiscourse marker examples by analyzing there [concordance lines] was really useful. (*Oraya bakarak üst söylem örneklerini görmek gerçekten faydalıydı*)" (Participant 5). They also agreed that using corpus in interactive MDM instruction is a beneficial technique (M=4). In addition, with regard to the relation between participants' paragraph writing skills and corpus use, they agreed that this technique helped them improve their argumentative paragraph writing skills (M=4.28). Moreover, they also found corpus as a useful resource to benefit from for improving English paragraph writing skills (M=4.14). These findings go hand in hand with Chambers and O'Sullivan (2004), Charles (2012), Chen and Baker, (2010) Conroy (2010), Quinn (2014), Yoon and Hirvela (2004) who also reported that use of corpora enhances EFL learners' writing skills.

Finally, to obtain in-depth information about the participants' attitudes and intake from the 5-week student specific interactive MDM training, freshmen pre-service English language teachers were asked several questions. The first question in this regard was about whether they believe they improved their use of interactive metadiscourse markers thanks to the trainings. Since the mean score was 4, it was understood that they agreed that the trainings were effective for their use of these devices. They also elaborated on their ratings and reported that thanks to these trainings "they employ several interactive metadiscourse markers more comfortably" (f=3), "they know more about their usages" (f=2), and "they gained experience about these markers" (f=2). In the same vein, when the available studies are investigated, it was also found that explicit metadiscourse marker instruction

seems to be effective (Dastjerdi and Shirzad, 2010; Kaya and Sofu, 2020; Sancak, 2019; Steffensen and Cheng, 1996; Tavakoli et. al., 2012 and Yaghoubi and Ardestani, 2014). Moreover, similar to what Taghizadeh and Tajabadi (2013) suggested, when the participants of the current study were asked if they feel more confident while using these markers after the trainings three of the participants strongly agreed, two participants agreed and two others neither agreed nor disagreed (M=4.14). The participants who either agreed or strongly agreed explained: I do not abstain from using interactive metadiscourse markers anymore (*Artık, üst söylem yapılarını kullanmaktan çekinmiyorum*)” (Participant 3). “I write more smooth paragraphs (*Yazılarımı daha akıcı yazıyorum*)” (Participant 4). Two participants who neither agreed nor disagreed reported that they had always had the confidence of employing these devices even before the trainings. Finally, parallel to the findings of Escobar and Fernandez (2017), five participants also reported that these trainings enabled them to be aware of the importance of metadiscourse markers. Yet, two participants stated that they had always known their importance.

When the participants were asked about the effectiveness of the trainings in terms of their writing skills all the participants either strongly agreed or agreed (M= 4.42) and they expressed that it was mainly due to “writing an argumentative paragraph each week” (f=5) and “analyzing authentic examples” (f=2). Therefore, it can be concluded that just like Vashegani and Pahlevansadegh (2019) suggest, adopting DDL as the teaching methodology to employ real-life examples is beneficial for teaching interactive metadiscourse markers.

CHAPTER 6

CONCLUSION

This chapter consists of three sections. In the first section the main findings of the current study are presented. The second section elaborates on the pedagogical implications of the finding. Finally, the third section deals with the limitations of this study and paves the way for further studies.

6.1. Summary of the Study

The present study examined the short- and long-term effects of a 5-week long student-specific instruction that adopted DDL methodology on the use of interactive MDMs (i.e., transitions, frame makers and code glosses) of freshmen pre-service English language teachers. In order to prepare data-driven and student specific materials on interactive MDMs, TOEFL11 corpus was utilized. To find out the effect of this instruction, the types, frequencies and appropriateness/(in)correctness of the MDMs in participants' pre-test, while-tests and post-test were investigated. Learners' problems in the use of MDMs were scrutinized and the reasons for those were uncovered. In this study, a concurrent triangulation mixed method design (Creswell, 2009) was adopted, and to collect the data various data collection tools were employed: (1) Background questionnaire, (2) Pre- while- and post treatment student writings, (3) While and post treatment online surveys, (4) Stimulated re-call sessions and follow-up interviews and (5) Weekly student diaries. The MDMs in the corpus were first classified using Hyland's (2005) taxonomy. Then, statistical analyses were run to unveil the short- and long-term effects of DDL. Next, the qualitative data were analyzed thematically to gain in-depth insight into the participants' feelings towards the training, materials, and MDM use. The analysis of the data yielded several results:

1. The number of interactive metadiscourse markers in all seven argumentative paragraphs of freshmen pre-service English language teachers fluctuated (Pre-Test: 5.31%, TM-AD-P1: 5.4%, TM-COM-P1: 5.8%, TM-CON-P1: 6%, FM-P1: 6.3%, CDG-P1: 5.9% and Post-Test: 4.94%); however, no statistically significant increase or decrease was found.
2. In their pre-training argumentative paragraphs, freshmen pre-service English language teachers employed transition markers most frequently (79%), followed by code glosses (11.11%) and frame markers (9.87%) respectively. Furthermore, among transition markers category they mostly used consequential transition markers (38.27%), additional transition markers (22.22%) and comparative transition markers (18.51%).
3. After analyzing their pre-training argumentative paragraphs in terms of interactive metadiscourse marker use, it was discovered that freshmen pre-service English language teachers needed further assistance:
 - a. For transition markers, it was found out that freshmen pre-service English language teachers did not have problems in using these markers frequently. However, they needed to employ a more variety of transition markers since the most frequently used forms were *'and'* (21.87%), *'but'* (10.93%) and *'because'* (9.36%) and when compared to TOEFL-High Corpus, they seemed to have a very limited repertoire. When they were asked reason behind, they reported that it was mostly because they were not familiar with them, or they did not have enough experience using them. Furthermore, they also needed assistance in overcoming their problems of underuse, incorrect use in terms of grammar and context and overuse.
 - b. For frame markers, it was discovered that they were not employed by more than half of the participants. Thus, freshmen pre-service English language teachers needed to be trained in terms of their function and importance to gain awareness and increase the frequency of these markers in their paragraphs. Also, it was necessary to provide the most frequent forms of these markers for them to get familiar and acquire their correct usage.

- c. For code glosses, since two participants had not employed any of these devices, it was necessary to raise awareness on their significance in argumentative paragraphs and encourage freshmen pre-service English language teachers to employ more code glosses. In addition, trainings on increasing the variety of the forms and enhancing the correct use of these devices were also essential.
4. Upon determining the problems that the participants encountered in terms of interactive metadiscourse markers, a training model that was designed specifically to address their needs through corpus-informed materials was created. This data driven training lasted 5 weeks and the short-term effect of it was analyzed through participants' while-training argumentative paragraphs.
 - a. The first week focused on additional transition markers. It was discovered that upon training, freshmen pre-service English language teachers started to use these markers more frequently. Moreover, though the overreliance of *'and'* persisted, they employed a more variety of them. It was also observed that they used these markers more appropriately in terms of their correct use.
 - b. The second week targeted comparative transition markers. Similar to the first week, the participants used these markers more frequently and, in more variety, despite the overdependence of *'but'*. In addition, they tended to employ some of the recently acquired devices incorrectly.
 - c. On the third week, consequential transition markers were instructed. Unlike the first two weeks, freshmen pre-service English language teachers used these markers less frequently when compared to their pre-training argumentative paragraphs. However, this decrease was not statistically significant. Yet, they seemed to employ a more variety of these markers upon training and they did not mostly rely on *'because'*. Also, it was witnessed that they used these devices more appropriately.
 - d. The first progress questionnaire was run on the halfway through the trainings to make sure they were effective and to take timely action

for the problematic issues. It was assured that freshmen pre-service English language teachers were satisfied with the methodology and the content of the trainings. Nevertheless, it was found out that some transition markers were still problematic. Thus, three sets of sample paragraphs that contained these markers from the TOEFL-High corpus were made available for the participants for remedial action.

- e. Frame markers were the focus of the fourth week of the trainings. It was found that pre-service English language teachers employed these devices much more frequently and, in a lot more variety. Moreover, all the frame markers were used correctly, except from one underuse issue.
 - f. The last week aimed at code glosses. The results yielded that freshmen pre-service English language teachers employed these devices more frequently after the training. Also, as well as improvement in the correct use, a more variety in the forms of these devices was witnessed.
 - g. The second progress survey was set to find whether there are problematic issues and to figure out the participants' attitude towards the training and interactive metadiscourse markers. The results indicated that freshmen pre-service English language teachers raised awareness in terms of these devices and overall, they were satisfied with the trainings. However, as some devices were still problematic, other three sets of sample paragraphs were provided. In addition, for remedial teaching, the participants were invited to a revision session where the problematic issues were clarified.
5. To test the long-term effect of the student specific data driven interactive metadiscourse marker trainings, three weeks after it was finished the participants wrote their post-training argumentative paragraphs. The analysis yielded several findings:
- a. It was found out that pre-service English language teachers employed less interactive metadiscourse markers in their post-training argumentative paragraphs (4.94%). than in their pre-training

argumentative paragraphs (5.31%). However, this decrease was statistically insignificant.

- b. In their post-training argumentative paragraphs, freshmen pre-service English language teachers again employed transition markers most frequently (65.81%). However, unlike in their pre-training argumentative paragraphs, they employed frame markers (21.51%) more frequently than code glosses (12.68%). It is also worth to note here that the high frequency of transition markers in their pre-training argumentative paragraphs decreased thanks to their employment of more frame markers and code glosses. Therefore, it can be deduced that the trainings worked in terms of raising the participants awareness on the selective use of these markers. What is more, within transition markers category they mostly used additional transition markers (26.58%), followed by consequential transition markers (20.25%) and comparative transition markers (18.98%). This shows that the participants also changed their write strategy. To explain, instead of explaining the reasons and consequences of their prepositions, they preferred to add more arguments to support their theses. Moreover, comparative transition markers' being the least preferred category of transition markers might indicate the participants' awareness of the genre specific use of metadiscourse markers (Adel, 2006).
- c. In terms of variety, it was found out that the trainings were effective in the long term as freshmen pre-service English language teachers employed more variety of transition markers, frame markers and code glosses in their post-training argumentative paragraphs than in their pre-training ones. However, when the while training paragraphs are also taken into consideration, it can be drawn that the training was more effective in the short-term.
- d. In terms of correct use, it was found that the trainings were successful because freshmen pre-service English language teachers made less grammatical and contextual mistakes in their post-training argumentative paragraphs than in their pre-training ones. However,

while the issue of overuse remained the same, it was discovered that they tended to underuse interactive metadiscourse markers more in their post-training paragraphs. With the help of the stimulated recall sessions and the post-interviews it was understood that both of these problems did not originate from the participants' lack of knowledge or awareness. Instead, it was due to not revising their texts before submission. Also, the findings suggested that in terms of correct use, the trainings were more effective in the long term.

- e. The post-survey was conducted to account for the effectiveness of the trainings and perceptions of the participants towards the training and interactive MDMs. The findings suggested that each element included in the trainings was purposeful and effective. Moreover, freshmen pre-service English language teachers reported that each step of the interactive MDM training was suitable and beneficial. Furthermore, they stated that receiving feedback, use of corpora and being specific to their needs were the top three advantages of this training. Finally, it was also figured that they got familiarized with some of the markers that they had found problematic for them in the progress surveys thanks to the sample paragraphs and revision session.

6.2. Pedagogical Implications

This study puts forth certain findings in terms of EFL learners' use of interactive MDMs, the effect of training in this regard and data driven learning methodology. Therefore, its implications could be benefited from several stakeholders such as English language teachers, curriculum designers, material developers and administrators as well as English language learners and researchers in the field of applied linguistics.

One of the most prominent findings of this study was that explicit instruction on interactive metadiscourse markers improved freshmen pre-service English language teachers' use of these devices and this finding supported the existing literature in

the field (e.g., Dastjerdi and Shirzad, 2010; Kaya and Sofu, 2020; Tavakoli et. al., 2012). Therefore, it is vital to integrate a type of training that aims to raise awareness and enhance the use of interactive metadiscourse markers into their institutions' syllabi by the curriculum developers. However, rather than being general, this training ought to be specific to the needs of the language learners of the institution to let them fulfill their aims effectively. Thus, conducting a needs analysis before designing such a training is essential. Moreover, this interactive metadiscourse marker training should take advantage of the current methodologies and techniques of the ELT field. To this end, knowing data driven learning method was beneficial for the participants of the current study, utilizing authentic and corpus-informed examples to allow language learners to analyze and discover the importance, function and the use of these devices can be advised for language teachers and material designers. Yet, utilizing appropriate corpora that contains genre-specific, successful texts is of high importance in order not to mislead the language learners and provide them with discourse and context specific resources. That being said, training both pre-service and in-service language teachers on utilizing corpora to consult for reference and on in-class applications of corpora is required.

This study also found out that even the freshmen pre-service English language teacher whose proficiency in English were proved tend to employ limited forms of interactive metadiscourse markers due to not having enough practice and familiarity on the other forms. However, since using the same devices repeatedly may cause writing ineffective paragraphs (Assesfeh et.al., 2013), language teachers and/or materials designers should ensure that they include various devices while preparing materials to teach interactive metadiscourse markers and create enough practice opportunities for language learners to get familiarized with these devices and build confidence in using them.

What is more, thanks to conducting two progress surveys while student specific and data driven trainings were in progress, it was possible for the researcher to take remedial action for the interactive metadiscourse markers that the participants of the current study either abstained from or found difficult to employ by providing them

with sample paragraphs and inviting them to the revision session. Without these tools, it would not have been possible to realize their evolved needs and address to them in a timely manner. Therefore, it is vital for language teachers to assess the learning process and revise the problematic parts to enhance learning.

Another result the present study yielded was on the correct/appropriate use of interactive metadiscourse markers. It was discovered that the participants mostly suffered from underusing interactive metadiscourse markers that may result in not being able to convey their messages to their readers. Moreover, it was found out that rather than not being able to employ these markers, this underuse issue stemmed from the fact that they did not perceive writing as a process in which they need to revise and edit their arguments before submission. Thus, language teachers should encourage their learners in this regard and curriculum designers can be advised to adopt process writing approach. The findings of the study also pointed out that receiving corrective feedback enhances language learners' use of these devices in terms of grammar and context. Hence, language teachers should make sure they let their learners be aware of their mistakes and provide meaningful explanations for their mistakes.

One final finding from the present study was that most of the participants who were freshmen pre-service English language teachers stated that they had never received any training on academic writing or metadiscourse until they start their higher education. This finding was in line with Altınmakas (2015). However, in higher education, these language learners are expected to write assignments, term papers and even theses. Therefore, instead of expecting them to acquire this skill in a short-time, writing and metadiscourse instruction could be integrated into K-12 curriculum.

Lastly, thanks to the various data collection tools utilized to triangulate the finding, the present study could account for the reasons why freshmen pre-service English language teachers avoided or employed certain interactive metadiscourse markers and the researcher gained in-depth insight into the perceptions and attitudes of the

participants towards the trainings and metadiscourse markers. Thus, this approach is highly recommended for future studies.

6.3. Limitations of The Study and Suggestions for Further Research

This study has three main limitations. To start with, the participants of the current study were all from METU enrolled in SUNNY-TEFL program. Therefore, no generalizations could be made since freshmen pre-service English language teachers in other institutions and programs might have had different background and learning characteristics. Accordingly, further research might collect data from several other institutions to find out their needs in interactive metadiscourse marker use and the effect of instruction in this regard.

Secondly, this study was conducted while distant education model was enforced due to Covid-19 pandemic. Therefore, the 5-week long data driven student specific interactive metadiscourse marker training took place online. Considering the fact that some participants of the current study complained about this situation and argued that it could not compensate for face-to-face education, conducting the same study in face-to-face format could yield better results. In addition, due to the same reason, indirect DDL approach was adopted in order not to overwhelm the participants with learning how to use concordance tools while they were getting accustomed to the distant education format. Thus, further studies might focus on the direct DDL approach.

Finally, this study adopted product-based writing approach as one aim of the current study was to encourage the participants to employ the targeted interactive metadiscourse markers each week with the help of different writing tasks and process writing approach was not suitable for this aim. Hence, although feedback was given, submission of the revised versions by editing was not required. Furthermore, to simulate the TOEFL independent task for the participants, timed writing was adopted, which resulted in making errors due to negligence or nervousness. In that vein, future research might work on the effect of process

writing approach which does not involve time-writing procedures on EFL learners' use of interactive metadiscourse markers.

Besides, data driven learning methodology on teaching interactive metadiscourse markers was found to be beneficial for the participants of this study who had all proved their language proficiency through EPE exam offered by METU and therefore can be counted as proficient language users. However, the effect of this training for lower level EFL learners could yield different result. Therefore, future studies could be conducted to test the effectiveness of this training in different levels.

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APPENDICES

A: TEFL171 Course Syllabus

4 TENTATIVE COURSE SCHEDULE				
WEEK	DATE	TOPIC	Relevant Reading	Class activities
Week 1	12.10.20	GENERAL COURSE INTRODUCTION	Kaplan (1966)	
Week 2	19.10.20	PREWRITING PROCESSES 1. Thinking about a topic 2. Freely jotting down ideas about the topic 3. Narrowing the topic and writing it in one sentence 4. Selecting and dropping ideas 5. Selecting ideas in a plan or an outline	Smalley et al. (2012), Ch. 1	After listening to the lecture, sts are asked to complete a number of exercises showing how prewriting techniques can be used to prepare them for the main writing activity.
Week 3	26.10.20	PREWRITING PROCESSES (CONTINUED) 1. Subject: select a subject that you know well and you are passionate about (e.g., Life in Ankara/Istanbul; Working with learning-disabled children; Overcoming shyness; Arranged marriages) 2. Audience: It is very important who will be the reader of your text, your approach to the subject will depend on whom you write to (e.g., your classmates, your professors, your parents) 3. Purpose: Why do you write the text? (e.g., Do you want to explain something to your readers? Do you want to persuade your audience that a certain view is correct?)	Smalley et al. (2012), Chs. 1 & 2	(i) Sts jot down ideas for these 3 assignments. They are asked to note down how their ideas and the details they include change/differ, depending on the audience and purpose of the text. (ii) Sts are asked to write a 100-120 word long paragraph/essay describing the procedures taught to them for the selection of the subject, audience and purpose while writing paragraphs/essays in Turkish.
Week 4	02.11.20	GENERATING IDEAS 1. Free writing 2. Focused Free Writing 3. Brainstorming 4. Clustering 5. Asking Questions 6. Keeping a Journal	Smalley et al. (2012), Ch. 1	(i) Sts work on a number of generating ideas exercises (ii) Sts are asked to write a 100-120 word long paragraph/essay describing the generating ideas exercises they used in their Turkish and English classes in middle and high school.
Week 5	09.11.20	THE PROCESS OF WRITING PARAGRAPHS -1 1. Finding the Topic Sentence 2. Narrowing the topic 3. Writing the Topic Sentence	Kaplan (1966) Savage & Mayer (2006), Unit 1, Part 1	(i) Sts work on exercises showing them the techniques of finding and formulating topic sentences. (ii) Sts are asked to write a 100-120 word long paragraph/essay describing the importance, use, formulation and placement of topic sentences in paragraphs/essays written in Turkish and English.
Week 6	16.11.20	THE PROCESS OF WRITING PARAGRAPHS -2 1. Generating ideas for the body (e.g., brainstorming) 2. Selecting the relevant ideas 3. Arranging ideas in a plan or an outline 4. Writing the first draft 5. Revising 5.1. Revising for support 5.2. Revising for unity 6. Writing the final draft	Jordan (1999), Chs. 1 & 18 Savage & Mayer (2006), Unit 1, Parts 4 & 5	(i) Sts are asked to write a 100-120 word long paragraph/essay describing the procedures for writing a paragraph/an essay in Turkish vs. the one in English.
Week 7	23.11.20	ACHIEVING COHERENCE IN A PARAGRAPHS -1 1. Coherence through order 1.1. Time order 1.2. Space order 1.3. Order of importance 2. Coherence through related sentences	Jordan (1999), Ch. 1 Savage & Mayer (2006), Unit 1, Part 2	(i) T and Sts work on the "Structure and cohesion" topic related to writing essays in English (ii) Sts are asked to write a 100-120 word long paragraph/essay in English describing the procedure for writing an academic essay.
Week 8	30.11.20	ACHIEVING COHERENCE IN A PARAGRAPHS -2 1. Coherence through order (Revised) 2. Coherence through related sentences 2.1. Repetition of important words and pronouns 2.2. Synonyms and substitutions 2.3. Transition expressions	Jordan (1999), Ch. 1 Savage & Mayer (2006), Unit 1, Part 2	(i) T and Sts work on "Achieving coherence in paragraph through related sentences" topic (ii) Sts write a 100-120 word long paragraph/essay in English describing how they would teach "achieving coherence" to their students (e.g., young adults, adults)
Week 9	07.12.20	WRITING A DESCRIPTIVE PARAGRAPH -1 1. Describing a person 2. Describing a place, an object	Jordan (1999), Ch. 3 Savage & Mayer (2006), Unit 2	(i) T and Sts work on the "Description: Physical" topic (ii) T presents Sts with texts including physical descriptions of the same events, places, people written in Turkish and English and discuss the differences and similarities (e.g., Orhan Pamuk <i>My name is Red, Snow</i> ; Elif Safak) (iii) T and Sts talk about "Mapping techniques" (iv) Sts write a 100-120 word long paragraph/essay in English describing their hometown so that the reader, who does not know that place, can get a clear picture of it.
Week 10	14.12.20	WRITING A DESCRIPTIVE PARAGRAPH -2 1. Describing a place, an object (Continued) 2. Describing an event	Jordan (1999), Ch. 2 Savage & Mayer (2006), Unit 2	(i) T and Sts work on "Describing an event" topic (ii) T and Sts read and evaluate various description texts and focus on language and style (iii) Sts write a 100-120 word long paragraph/essay describing an incident that they consider to be a turning point in their lives
Week 11	21.12.20	WRITING A NARRATIVE PARAGRAPH Present and past narration	Jordan (1999), Ch. 4 Savage & Mayer (2006), Unit 3	(i) T and Sts work on the "Writing a narrative paragraph" topic (ii) Sts write a 100-120 word long paragraph/essay telling the reader a story that ends with a surprise.
Week 12	28.12.20	WRITING A COMPARISON AND CONTRAST PARAGRAPH	Jordan (1999), Ch. 8 Savage & Mayer (2006), Unit 5	(i) T and Sts work on the "Comparison and contrast" topic (ii) Sts write a 100-120 word long paragraph/essay telling the reader about the differences and similarities between the communicative styles of teachers/professors and students in high school and at the university. Which one would you adopt when you become teachers and why?
Week 13	04.01.21	WRITING A COMPARISON AND CONTRAST PARAGRAPH	Jordan (1999), Ch. 8 Savage & Mayer (2006), Unit 5	(i) Sts write a 100-120 word long paragraph/essay telling the reader about the differences and similarities between the Turkish and English styles of writing.
Week 14	11.01.21	REVIEW		

B: HUMAN SUBJECTS ETHICS COMMITTEE APPROVAL FORM

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
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ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

Sayı: 28620816 /

13 KASIM 2020

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof. Dr. Çiler HATİPOĞLU

Danışmanlığım yaptığımız Cemre ÇİÇEK TÜMER'in "*Data Driven Learning (DDL) and the Use of Interactive Metadiscourse Markers (Transitions, Frame Markers and Code-glosses) in the Opinion Paragraphs Written by Freshmen Pre-Service English Language Teachers*" başlıklı araştırmanız İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve 322-ODTU-2020 protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prof. Dr. Mine MİSİRLİSOY

İAEK Başkanı

C: INFORMED CONSENT FORM

This is a quasi-experimental study is conducted by Cemre ÇİÇEK TÜMER, who is a master student in English language teaching program at Middle East Technical University, under the supervision of Prof. Dr. Çiler HATIPOĞLU. This form is prepared to inform you about the research conditions. The aim of the study is to collect data about the use of interactive metadiscourse markers used in argumentative paragraphs.

This study will be conducted in eleven weeks. Firstly, you will be asked to fill in the background questionnaire. The aim of the background questionnaire is to obtain information about your demographic information and experience in learning English. Then, you will be asked to write a 150-200-word argumentative paragraph on a chosen topic by you. Upon the analysis of your paragraphs, you will receive 30-minute training at the end of each TEFL171 course on interactive metadiscourse markers between the weeks 4 and 11 for seven weeks. Throughout the training sessions, you will be asked to write an argumentative paragraph right after each session to practice what you have learnt. You will be asked to write your argumentative paragraphs in 30 minutes at a sitting while your cameras on, on Zoom. Also, you will be asked to keep a diary on what you have learnt each week. The weekly diaries will help the researcher to better understand the reason behind your use of metadiscourse markers. After the trainings you will be asked to write a final argumentative paragraph in order for the researcher to analyze your progress through trainings. Finally, you will be asked to fill in a set of progress questionnaires which serve as a tool to understand your perceptions and experience about the training and the use of metadiscourse markers. You may also be asked to attend the audio-recorded follow-up interview if found necessary.

Participation in the study must be on a voluntary basis. The questionnaire does not contain questions that may cause discomfort in the participants. However, during participation, for any reason, if you feel uncomfortable, you are free to quit at any

time. In such a case, it will be sufficient to tell the person conducting the research that you do not want to participate anymore.

Your answers will be kept strictly confidential and evaluated only by the researcher; the obtained data will only be used for scientific purposes. The researcher will erase all the audio recordings after the research is conducted.

I would like to thank you in advance for your participation in this study. For further information about the study, you can contact Prof. Dr. Çiler HATİPOĞLU from the Department of English language teaching (E-mail: ciler@metu.edu.tr) or researcher Cemre ÇİÇEK TÜMER (E-mail: cemre.cicek@metu.edu.tr).

I am participating in this study totally on my own will and am aware that I can quit participating at any time I want/I give my consent for the use of the information I provide for scientific purposes. (Please return this form to the data collector after you have filled it in and signed it).

Name Surname

Date

Signature

Course Taken

---/---/---

D: BACKGROUND QUESTIONNAIRE

TEFL 171: EXPOSITORY WRITING I ANKET 1_12/10/2020 / Background Questionnaire

*Bu anket İngilizce Öğretmenliği Bölümlerinde okuyan öğretmen adaylarının hem ana dilde hem de yabancı dilde akademik yazma becerilerinin daha iyi geliştirilmesinin adımlarını ortaya çıkarmayı amaçlayan bir çalışmanın parçasıdır. Amacımız geleceğin nesillerini yetiştirecek öğretmenlerimizi mesleki açıdan mümkün olduğu kadar iyi hazırlamaktır. Ancak bunu yapabilmek için sizin yardımınıza ihtiyacımız var. Bu çalışmanın güvenilir olması için tüm sorulara cevap vermeniz gerekir.

*Soru 3, 6, 10, 11, 16b gibi seçenekli sorularda size uygun cevabın yanına '✓' işareti koyunuz.

*Katkılarınız için şimdiden sonsuz teşekkürler!!! :)

(This survey is part of a study that aims to reveal the steps for better development of academic writing skills of teacher candidates studying in English Language Teaching Departments, both in their mother tongue and in their foreign language. Our aim is to prepare our teachers who will raise the future generations as professionally as possible. But to do this, we need your help. For this study to be reliable, you must answer all the questions.

**For optional questions such as question 3, 6, 10, 11, 16b, put a '✓' sign next to the answer that suits you.*

** Many thanks in advance for your contribution!!! :))*

BÖLÜM A (PART A)					
1. İsim (Name):					
2. Yaş (Age):		3. Cinsiyet (Gender): KADIN (Female) ERKEK (Male)			
4. Okul/Üniversite (School/University):					
5. Bölüm (Department):					
6. Sınıf (Grade): 1. 2. 3. 4.					
7. Mezun olduğunuz lisenin tam ismini yazınız (Please write the full name of the high school you graduated from):					
8. Nüfusa kayıtlığı olduğunuz yer (Place of registry):					
9. Şu anda ailenizin ikamet ettiği yer (Residence of your family):					
10. Babanızın eğitim düzeyi (Father's level of education):	YOK (None)	İLK (Primary School)	ORTA (Middle School)	LİSE (High School)	ÜNİVERSİTE (University/College)
11. Annenizin eğitim düzeyi (Mother's level of education):	YOK (None)	İLK (Primary School)	ORTA (Middle School)	LİSE (High School)	ÜNİVERSİTE (University/College)
12. Ailenizin yaklaşık yıllık geliri (Yearly income of your family):					
13. Türkçe'nin yanında bildiğiniz diller ve düzeyleri (Languages you speak other than Turkish and your proficiency level):			(*Not: Düzeyinizi aşağıdaki derecelendirmeye göre yapınız/Please choose one of the categories below for your proficiency level)		
Çok iyi (Very Good)			=Yabancılarla yazılı ve sözlü olarak çok mükemmel bir şekilde anlaşabilmekteyim (I can perfectly communicate with foreigners in spoken and written discourses);		

İyi (Good)	=Yabancılarla yazılı ve sözlü olarak rahat bir şekilde anlaşabilmekteyim (<i>I feel comfortable while communicating with foreigners in spoken and written discourses</i>);
Orta (Intermediate)	=Yabancılarla yazılı ve sözlü olarak anlaşmakta zaman zaman zorlanmaktayım (<i>From time to time, I find it hard to communicate with foreigners in spoken and written discourses</i>);
Zayıf (Poor)	=Yabancılarla yazılı ve sözlü olarak anlaşmakta çok zorlanmaktayım (<i>I really find it hard to communicate with foreigners in spoken and written discourses</i>).
<u>DİL (LANGUAGE)</u>	
<u>DÜZEY (LEVEL OF PROFICIENCY)</u>	
A.	
B.	
C.	
D.	
14. Varsa, bulunduğunuz yabancı ülkenin/ülkelerin ismi/isimleri (<i>If any, please indicate the name(s) of the country/countries you have been to</i>):	
<u>ÜLKE (COUNTRY)</u>	<u>Kaldığınız süre (gün, ay, yıl) (LENGTH OF STAY (day, month, year))</u>
<u>Ziyaret amacınız (eğlence, eğitim, iş vb.) (PURPOSE OF VISIT (for pleasure, education, business))</u>	
A.	
B.	

BÖLÜM B (PART B)			
1.	Kompozisyon nedir? Bu terimi kısaca tanımlayınız veya bu kelimeyi duyduğunuzda aklınıza gelen ilk düşünce ve örnekleri yazınız (<i>What is essay? Please define this term or state the ideas and examples that come to your mind when you hear this word</i>).		
2a.	İlköğretimde (1-8 sınıf) Türkçe kompozisyon yazma eğitimi aldınız mı? (<i>Have you received a training on writing and essay in Turkish in primary school – grades 1-8</i>)	Evet (Yes)	Hayır (No)
2b.	İlköğretimde Türkçe kompozisyon yazma eğitiminizi anlatınız (ör. öğretilen konular, kullanılan teknikler ve materyaller, verilen geri dönütler) (<i>Please write about your training on writing in primary school e.g., topics, techniques and materials, feedback</i>)		
3a.	Lisede Türkçe kompozisyon yazma eğitimi aldınız mı? (<i>Have you received a training on writing and essay in Turkish in high school</i>)	Evet (Yes)	Hayır (No)
3b.	Lisedeki Türkçe kompozisyon yazma eğitiminizi anlatınız (ör. öğretilen konular, kullanılan teknikler ve materyaller, verilen geri dönüt) (<i>Please write about your training on writing in high school e.g., topics, techniques and materials, feedback</i>)		
5a.	Türkçe kompozisyon yazmayı seviyor musunuz? (<i>Do you like writing an essay in Turkish</i>)	Evet (Yes)	Hayır (No)
5b.	5a'daki cevabınızın nedenini açıklayınız (<i>Please explain your choice in 5a</i>):		

6.	Türkçe kompozisyon yazarken en çok zorlandığımız noktalar nelerdir? Kısaca açıklayınız. Daha sonra da zorlanma sebeplerinizi tartışınız (<i>What are the parts you find the most difficult while writing an essay in Turkish, please explain and state the reasons why</i>).
7.	Türkçe öğrenen ve bu konuda hiçbir şey bilmeyen yabancı bir arkadaşınıza tecrübe ve eğitiminizi de kullanarak Türkçe kompozisyon nasıl yazıldığını tarif ediniz (<i>Please describe how to write an essay in Turkish for your foreign friend who is learning Turkish and has no idea about writing by using your experience and training</i>)

BÖLÜM C / PART C

1a.	İngilizce kompozisyon yazma eğitimi aldınız mı? (<i>Have you received a training on writing in English?</i>)	Evet (Yes)	Hayır (No)
1b.	İngilizce kompozisyon yazma eğitiminizi anlatınız (<i>Please describe your training on writing an essay in English</i>):		
1b1.	Ne zaman, nerede, nasıl bir eğitim aldınız? (<i>When and where have you received this training and how was it?</i>)		
1b2.	Öğretilen konular, kullanılan teknikler ve materyaller nelerdi? (<i>What were the topics, techniques and materials?</i>)		
1b3.	Eğitim sırasında geri dönüt nasıl veriliyordu? Verilen geri dönütler İngilizce kompozisyon yazma becerilerinizin gelişmesine nasıl katkılar sağladı? (<i>What was the feedback provided? What was the effect of feedback given on your writing an essay in English skills</i>)		
2a.	İngilizce kompozisyon yazmayı seviyor musunuz? (<i>Do you like writing an essay in English?</i>)	Evet (Yes)	Hayır (No)
2b.	2a'daki cevabınızın nedenini açıklayınız (<i>Please explain your choice in 2b</i>):		

3.	İngilizce kompozisyon yazarken en çok zorlandığınız noktalar nelerdir? Kısaca açıklayınız. Daha sonra da zorlanma sebeplerinizi tartışınız (<i>What are the parts you find the most difficult while writing an essay in English, please explain and state the reasons why</i>).
4.	Türkçe mi, İngilizce mi kompozisyon yazarken daha çok zorlanıyorsunuz. Neden? Sebeplerini açıklayınız (<i>Do you find writing an essay in Turkish or English? Please explain why</i>).

BÖLÜM D / PART D

	Evet (Yes)	Hayır (No)
1a.	Herhangi bir yazma dersi sırasında üstsöylem belirleyicileri (metadiscourse markers/devices) (ör. <i>yani, sonunda, yukarıdaki gibi, örneğin, belki, maalesef, aslında</i> gibi sözcükler) ile ilgili bir bilgi veya eğitim verildi mi? (<i>Was any information or training given during any writing class on metadiscourse markers/devices, i.e., finally, for example, maybe, unfortunately, actually</i>)	
1b.	1a'ya "EVET" cevabı verdiyseniz bu eğitiminizi anlatınız (<i>If you chose "YES", please describe this training</i>): Ne zaman, nerede, nasıl bir eğitim aldınız? Size nasıl bilgiler verildi? (<i>When and where did you receive this training? What kind of information were you given?</i>)	
1c.	Üstsöylem belirleyicileri (metadiscourse markers/devices) ile ilgili eğitim aldıysanız, hangi dilde (Türkçe veya İngilizce) hangi üstsöylem belirleyicilerini başarıyla kullandığınızı düşünüyorsunuz? Bunları neden (kolayca) kullandığınızı kısaca açıklayınız. (<i>If you have received training on metadiscourse markers/devices, which metadiscourse markers do you think you successfully use and in which language (Turkish or English)? Briefly explain why you (easily) use them.</i>)	

1d.	<p>Üstsöylem belirleyicileri (metadiscourse markers/devices) ile ilgili eğitim aldıysanız, hangi dilde (Türkçe veya İngilizce) hangi üstsöylem belirleyicilerini kullanırken zorlanıyorsunuz? Neden? Kısaca açıklayınız. <i>(If you have received training on metadiscourse markers/devices, which metadiscourse markers do you have difficulty using and in which language (Turkish or English)? Why is that? Please explain briefly.)</i></p>		
2a.	<p>Üstsöylem belirleyicileri (metadiscourse markers/devices) ile ilgili eğitim almak ister misiniz? <i>(Would you like to receive training on metadiscourse markers/devices?)</i></p>	Evet (Yes)	Hayır (No)
2b.	<p>Hangi dilde? Neden? <i>(In which language and why?)</i></p>		

E: PRE-TEST

Name – Surname:

Task Name: Pre-Test (argumentative Paragraph Writing)

Please write an argumentative paragraph of about 150-200 words on one of the topics below:

1. Do you agree or disagree with the following statement? “It is better for children to grow up in the countryside than in a large city”.

Please keep your cameras on while writing.

Please do NOT use any dictionaries or do NOT get any help from anyone while writing.

Please write your paragraph in the box.

F: TEACHING MATERIALS

ANALYZE: Please examine the bold expressions below.

1. To be brief, when doing a sport, young people have more choices than older people do. **Besides**, young people have less pressure from the society.
2. But in my opinion, the backdraws of these little vehicles are so many that, people will find new options in twenty years. **Besides**, none of us wants to face wars or high prices anymore.
3. The internet contains much more information than the textbooks used in the classroom, and the information are likely to be the latest. **Besides**, understanding ideas and concepts helps the students to solve more complex problems.
4. Conversely, many young people think they have grown up. **Moreover**, they do not feel the pressure from the society.
5. The groups led by a tour guide usually have a well-designed schedule and members in the group are able to visit as many places in a short period as possible. **Moreover**, even though the members do not know the language spoken in the place they visit, they have less trouble with the help of the tour guide.
6. The successful people are the only people who takes responsibility and risk factors beyond the imagination. **Moreover**, the positive attitude, zeal to work hard for long hours and getting practice in that particular course of study gives much detail information, knowledge, experience and satisfaction.
7. If the teachers just keep telling the students the facts, the advantage aspect of the school would be wasted. **Furthermore**, other methods enable the students to learn facts that are far more valuable and more up to date.
8. On the other hand, magazine and photograph-based advertisements usually tend to use very simple tricks such as showing products bigger than they are or accompanied by a lot of accessories which are not included, and sometimes not even sold at all, but make the real product look a lot more attractive. **Furthermore**, some advertisements show results that cannot be completely achieved by the product itself, to convince people to use them.
9. Travelling in a group may compromise one's privacy so in such situations travelling in a group does not make sense. I know of some couples who went on their honeymoon to a tourist location in a group. I believe that travelling in group can take away the romance away from such trip. **Furthermore**, some

people gain more pleasure in travelling alone because of sense of adventure that it provides which travelling in a group with tour guide just cannot provide.

10. Travel in groups led by a tour guide are often well-organized trips: the number of people is set, the destinations are well assessed, the timing for each activity is carefully structured and the tour guide is usually a tourist professional. People bond together when travelling in a group. **In addition**, another potential benefit of group travel are the lower and more affordable costs for the tourist. Group travel is often cheaper than individual travel.
11. A young person can also be physically and/or psychologically impaired in the same way an older person can be absolutely healthy and fit despite their old age. **In addition**, some young people have already gone through a lot of hardships despite their youth, while some old people have never faced a severe problem.
12. In conclusion, I believe that it is more important for students to understand ideas and concepts than it is for them to learn facts because the facts are only useful after understanding general ideas and concepts. **In addition**, understanding the ideas need more time to do it and it encourages students' independency.
13. Apart from losing its chance among its alternatives, cars will most likely be forced to reduce in number due to their harmful effects on the environment. The fundamental need of a car to run is oil and this fact is unlikely to change in coming twenty years. Regarding increasing concerns on the global warming this need of cars will make it likely to be replaced. **In addition to** harmful gasses released, cars also damage environment by creating sound pollution and indirectly by drivers demanding more roads.
14. For instance, it is a known fact that the average use of cars is around 1,5 people per car worldwide which proves how inefficient cars are compared to massive transportation ways such as trains, ships and planes. **In addition to** this, cars also create a traffic problem which is incomparable to its alternatives.
15. By being young, young people are hopeful about the future and they do not worry about the bad things that might happen due to the aging or loss of health. Having these ideas in mind will create a positive environment and young people can easily enjoy life more than older people. **In addition to** being young, young people can learn and adapt to the technological improvements very easily.
16. We can start walking the nearby distances; it will not only help save fuel but also be healthy for the individual. **Apart from** this, we can start using renewable sources for our fuel purposes.
17. If the prices for oil rise further (due to the conflict in the middle east), the prices for petrol will rise automatically. So, **apart from** the money, you have to pay for taxes and the insurance for your car anyway, you also have to take in account the amount of money you spend on petrol every month.

18. This indicates that the number of cars in use today is sure to decline. **Apart from** health-related issues, the phenomenal increase in number of cars on roads have led to traffic congestions in many countries because of lack of proper infrastructure.

DISCOVER

You have examined the linkers below

- Besides
- Moreover
- Furthermore
- in addition
- in addition to
- apart from

1. What is their function?

2. How are they used in terms of grammar?

3. How are they used in terms of punctuation?

4. Are there any other expressions you use for the same functions as in question 1? How do you use them?

PRACTICE

By using the linkers below, please write coherent sentences to complete the paragraphs.

- Besides
- Moreover
- Furthermore
- in addition
- in addition to
- apart from

1. All in all, I believe advertisements make products seem much better than they really are.

2. It is expected from a young person to earn good grades at school or at college, to participate in extracurricular activities to show a wide range of interest and many

young people have to work after school to earn their spending money.

3. The increased number of suburban living areas makes the people living there almost totally dependent on cars as public transportation is wider and more frequent around city centers.

4. The tour guide always says the same thing just likes the travel book.

5. In my opinion, young people are healthier than older people. Also, they can learn faster because their brains are more active.

6. Thus, you do not have to worry about what will happen next if you continue to do things that you already know.

ANALYZE

Please examine the bold expressions below in terms their usage (grammar, punctuation), context and meaning.

1. There are so many sports for young people to attend today; **however**, there are so few sports for old people to attend.
2. Group travel is often cheaper than individual travel. **However**, group travels lead by a tour guide may also have disadvantages.
3. Some people emphasize the great importance for the students to understand ideas and concepts in their school settings, **while** others argue that the significancy of learning facts should not be neglected.
4. After all, a young person doesn't enjoy life more than an older person does, both enjoy life just in totally different ways. **Still**, one should not forget the fact that we are discussing stereotypes here.
5. **On the one hand**, there are some people that spent most of their time thinking how they can help their community. **On the other hand**, there are some people that really don't care in helping their society.
6. **Although** specialization is needed to excel in certain field, in the developing society where everyone is busy in the race of cats and dogs, one has to excel in every field.
7. Secondly, **even if** some may say that public transport in western countries has been trying for years to be a substitute for cars, the truth shows that families spend more money than ever in the purchase of cars, and many of them own more than one, or even two cars.
8. **Even though** there are incredible technologic progressions occur in transportation, sociologic researches have shown us that a car is more than any other instrument of transportation.
9. **Though** learning facts is also very important in education, judging from what has been mentioned above, I believe it is understanding ideas and concepts that far outweighs the opposite aspect.
10. By just looking at the buildings, I would not have learned much information, just only the basic facts. **Yet**, by having a tour guide explain things, I could understand better and was more interesting.
11. People of those countries use their cars a lot in order to go to their jobs **whereas**, in countries which are already developed and rich, people take the subway, buses and the tramway.

12. It is definitely important to be familiar with more than one single topic. **Nevertheless**, it is obvious that students have to concentrate on one academic topic if they want to compete with others in a job.
13. Indeed, it is quite important to focus on one specialty to be the best in what we do. **Nonetheless**, people who give the priority to experience are more static in their way of thinking and have a weak ability of adaptation toward a changing environment.
14. In addition, some young people have already gone through a lot of hardships **despite** their youth, while some old people have never faced a severe problem.
15. Firstly, young people are much healthier and energetic **in contrast to** older people.
16. Of course, learning fact is important, but it is of lesser importance **when compared to** understanding the ideas and concepts.
17. **In spite of** not having enough money to buy a certain car, people tend to do so anyway.
18. For example, a software designer may need a basic understanding of accounts or banking to understand needs of bank while developing a banking software. **Similarly**, a mathematician helps create formulas or theories for problems arising in physics.
19. There may arise different situations by which the broad knowledge over a specific academic subject would be sufficient. Just consider a software engineer who has a broad knowledge about the software part of his system who is not capable of solving the hardware issues arising. **In the same way**, a person who is good at computers cannot work for a company where mechanical engineers are required.
20. A significant evidence is that a student who wants to work on the stock market- which is a pretty specific and technical field- will have to attend accountancy classes to know how the accounts of a firm work. **Likewise**, a student who is planning to set up his own business will need to have a clear view on the grounds like marketing, law, finance, management and the like.
21. People have to go around the one place to another in a rush in order to make it on time on tours. **On the contrary**, since traveling alone allows much freedom, a traveler can take a closer look on the site or tourist features.
22. **In contrast to** the people who can afford one car for their personal transportation, there will be many people who earn enough money to have even more than one car only for the purpose of fun.

23. It is indeed important for students to understand the basic ideas and fundamental concepts of any science **rather than** just learning the facts.
24. If public transportation become easier and more available, I think most of the people will use public transport **instead of** their own cars which will reduce the number of cars significantly.

DISCOVER

You have examined the linkers below.

However	Though	In contrast (to)
Rather (than)	Even if	Nonetheless
While	Even though	Similarly
Still	Yet	In the same way
On the other hand	Whereas	When compared (to/with)
Although	Nevertheless	In spite of
Instead (of)	Despite	Likewise
On the contrary		

Based on your analyses please answer the questions below.

1. What is their function? When are they used?
2. How are they used in terms of grammar?
3. How are they used in terms of punctuation?
4. Are there any other expressions you use for the same functions as in question 1? How do you use them?

PRACTICE

By using the linkers below please fill in the blanks.

However	Though	In contrast (to)
Rather (than)	Even if	Nonetheless
While	Even though	Similarly
Still	Yet	In the same way
On the other hand	Whereas	When compared (to/with)
Although	Nevertheless	In spite of
Instead (of)	Despite	Likewise
On the contrary		

1. _____ organized tours are usually cheaper and more convenient; I think traveling by your own is a richer experience for several reasons.
2. The only difference between the two groups of people are that young people are more active _____ older people are less mobile.
3. One could also imply that older people enjoy their life more because they have waited to do so all their life and are only now able to appreciate their exclusive situation, while young people do not reflect as much about what they are actually doing and experiencing. _____, it might be exactly this characteristic that makes life easier and more enjoyable and fun for young people.
4. _____ their usefulness and popularity, cars present environmental problems.
5. Everything is already fully discovered. _____, there are people who need to try new things in order to be successful, scientists for example.
6. _____ the people who can afford one car for their personal transportation there will be many people who earn enough money to have even more than one car and that only for the purpose of fun.
7. _____ all the vehicles that are available now in the market, the best transport that fits a family is car, which is affordable by a common man.
8. For instance, if Newton did not concentrate on physics but have bits and pieces of physics, biology and chemistry he would not be able to develop his theories. _____, if Freud did not specialize on psychoanalysis many of his assertions would not exist.

ANALYZE

Please examine the bold expressions below in terms of their usage (grammar, punctuation), context and meaning.

1. But he never used to concentrate on other subjects **as** he found them uninteresting and worthless.
2. Finally, I would like to say that great number of cars in use lead to many problems and **as** people are aware of these problems, the number of cars in use will decrease.
3. Moreover, they do not feel the pressure from the society. **Therefore**, they intend to enjoy their life more than their parents do.
4. It is true that people lead busy lives in nowadays; **therefore**, some people prefer a organized trip with a tour guide.
5. **Since** they know a lot about the area, we can experience many things which other tourists cannot.
6. First of all, traveling alone can be very dangerous **since** you are in a place that you don't now.
7. Finally, the political battles led against car pollution did not permit the number of cars to decrease. **Thus**, I think this ineffectiveness will continue in the future.
8. Even though we usually think young people 's lives are very active and **thus**, they are happier and enjoy life better, when you come to a certain age above 65, you can certainly concentrate on the activities you like doing better.
9. No matter what is done to reduce car usage, such as increasing the age requirement, or investment in other modes of transportation, I believe that people cannot give up on cars **due to** the privacy and efficiency it provides.
10. **Due to** current world instability and to international terrorism, many people prefer not to take a plane if possible, not only because the fear of an attack, but because the security controls and the more and more frequent baggage losses.
11. Did you know that with this frightening global warming, glaciers disappear and that can **lead to** the disappearance of the Maldives in less than twenty years for instance?
12. Unlike adults who are too engrossed in their mediocre family problems and commitments, younger generation provides a more committed interest and a promise to fulfill its task. **Hence**, it's always the younger generation that ends up in helping out the society.

13. Therefore, many people are becoming more aware of the importance of being socially responsible; **hence**, they are starting to convey the benefits of being socially responsible to younger people.
14. On the other hand, some of the parents are trying really hard making money **so that** they would have a better life after the retirement.
15. This is because these low-cost airlines offer cheap rates, especially to the everyday business travelers and these travelers have such a plethora of options in choosing the cheapest deals.
16. **As a result**, people have started abandoning car as their mode of transport for short routes.
17. For example, a doctor with a great knowledge and ability to adopt it cannot take risks to cure his/her patients if the doctor 's attempting and taking risks **result in** a number of patients' death.

DISCOVER

You have examined the linkers below.

As	Lead to
Therefore	Hence
Since	So that
Thus	As a result
Due to	Result in

Based on your analyses please answer the questions below.

1. What is their function? When are they used?
2. How are they used in terms of grammar?
3. How are they used in terms of punctuation?
4. Are there any other expressions you use for the same functions as in question 1? How do you use them?

PRACTICE

By using the linkers below please fill in the blanks.

As	Lead to
Therefore	Hence
Since	So that
Thus	As a result
Due to	Result in

1. An increase in the number of cars would _____ a more polluted environment which would further see a rise in environment related diseases such as asthma, cancer etc.
2. Thirdly, the company wants to appeal to a wide range of people in order to influence their decision to buy the company's product positively. _____ the company is forced to present its product in a general way.
3. At the same time, it is abundantly clear from the examples above that the many advancements in science and technology have come about _____ the persons engaged in these had specialization in their own fields and has enough knowledge of others to call up the expertise of others or their own faculties to help them in their chosen field.
4. Since population is growing there are no more space for everyone in the cities; _____, living in the city is becoming more and more expensive.
5. Based on this psychological effect, we tend to support the idea that the society should produce more `` experts" _____ people will get more reliable information from the media and their lives.
6. Finally, _____ increased technology and the saturation level of the market, cars come to the consumers at lower costs when compared to past.

ANALYZE

Please examine the bold expressions below in terms of their usage, context and meaning.

Paragraph 1

Nowadays the number of cars is increasing day by day. For instance, traffic jams are becoming more and more usual not only in big cities, such as New York or London, but also in small ones, such as Lyon or Bilbao. It is known that the car is the most used way of transport and all of us use it to go everywhere, although gas price is getting higher and despite the pollution that it creates. That's the reason why I believe that the number of cars in twenty years won't decrease and, actually, I think it will increase **for several reasons. Firstly**, the amount of people who belong to the labor force is increasing and the unemployment, on contrast, is going down. So, more people working means an increase of funds in that people and more people who needs to go to work. Maybe not all of them will buy a new car but many of them definitely will do it. **Secondly**, living standards are becoming higher as time goes by in the developed countries. Then, although some years ago there was just one car for each family, nowadays there are usually two at least. And as living standard are going up the number of cars will go up too, as parents will start buying cars for each of their sons and daughters. **Thirdly**, we are living the economic explosion of some developing countries as China, for instance. The economic growth in China is huge, and the increase in car sells is huge too. All the international companies are going to china for both, selling and producing cars, as their past production are not enough to cover the actual demand. Attending to the opinion of the most famous economist, they that this economic period is expected to last many years more. Moreover, this phenomenon does not affect only to China but also to the other developing countries as South America and so on. **In conclusion**, I sincerely believe that all of these factors to explain clearly that the number of cars is going to increase, and it will be bigger in twenty years then.

Paragraph 2

I think that the best way to travel is in a group led by a tour guide **and there are many reasons** to support this idea. **First of all**, traveling alone can be very dangerous since you are in a place that you don't know. Sometimes even the idiom is strange to you. It's possible that by mistake you ended up in risky places where you can be assaulted. These are some risks that people like me don't want to have, so the answer for them is to travel in a tour. Because tours are composed of many people and are led by a local guide who knows the zone, you can be almost sure that nothing bad will happen to you. **Another reason** to support this idea is that lonely travelers have to ask for interesting places in each city they go. They will visit some places, but probably they will miss others. When traveling in a tour, all the places are known by the agency, and they usually give you the best of each town. You don't waste time asking for advice and you don't miss important places. **Finally**, although tour agencies seem to be expensive, in my opinion, they ended up being cheaper. When you travel by yourself, you can make some good deals. Nevertheless, very often people are cheated by local sellers, and they don't become aware of this because they simply don't know what the correct price is. These events never happen in tours. They know where they work, and the correct price. They charge you some extra money for this knowledge, but it's worth it. **To conclude**, I prefer to travel with tour agencies because an important thing to me is to play safe in my trips along with the fact that I don't like to miss any interesting spot. In addition, tour agencies end up being cheaper

Paragraph 3

I strongly agree with the idea that it is more important for students to understand ideas and concepts than it is for them to learn facts since **there are several reasons** for that. **First**, students at the elementary and high school levels need to understand basic theories before they are in contact to the world as independent people. They must know about logical solutions and good behavior. Although parents care for the development of their children, schools are a fundamental part in the acquisition of basic knowledge. **Second**, at the university level, students are in a continuous process of learning because everyone wants a career. The understanding of ideas and concepts is the most important for them in the acquisition of knowledge. Although learning by facts is important too, students gain more knowledges from ideas and concepts. That is the reason why there are so many universities and schools around the world. Students must emphasize in theories rather than in practice. They will practice later but they need to understand important points before they enter to the working environment. **Third**, as graduated students, they should practice and learn facts, but the process of learning would be longer if they did not spend too much time before understanding ideas and concepts. It is true that people learn a lot from experiences, but it is also true that it takes too much time for people who do not have the basic concepts on their minds in order to apply them into the practice. **To sum up**, I believe that it is more important for students to gain their knowledge by understanding ideas and concepts. Although experience is important, this process would be endured if students do not press attention to the theory.

DISCOVER

You have examined the linkers below.

There are many reasons	First	Second	Finally	In conclusion
There are several reasons	Firstly	Secondly	Third	To conclude
For several reasons	First of all	Another reason	Thirdly	To sum up

Based on your analyses please answer the questions below.

1. What is their function? When/where are they used?
2. How are they used in terms of grammar?
3. How are they used in terms of punctuation?
4. Are there any other expressions you use for the same functions as in question 1? How do you use them?

PRACTICE

Please read the paragraph below and decide where frame markers are needed. Then, please choose appropriate frame markers and add them where you think they are necessary.

There are many reasons	First	Second	Finally	In conclusion
There are several reasons	Firstly	Secondly	Third	To conclude
For several reasons	First of all	Another reason	Thirdly	To sum up

Nowadays, many themes exist about studying. Some people believe that it is more important for students to understand ideas and concepts than it is for them to learn facts while others think that it is more important for students to learn facts than it is for them to understand ideas and concepts. I believe that understanding ideas and concepts are more important than learning factors. Understanding ideas and concepts are essential for students. Even if students know the facts, if students do not understand ideas and concepts, the facts would not mean anything. It could be just numbers and statistics. For example, in the International Business class, students learned why countries trade each other. Beneath the base concept of trade, there were two ideas: comparative and absolute advantages. After students learned that they looked at the factors and numbers. Students knew what the factors are supposed to mean because they already knew the ideas and concepts of the facts. If professors just showed the students factor, they never know that what these factors and numbers are supposed to mean. understanding ideas is more important than learning facts because students can easily find and learn the facts. Every fact is online. By internet, students can find every fact they want to know from population to income rate. However, in order to understand ideas and concepts students should spend their time and concentrate on that idea students want to know. For example,

last semester I got an assignment to fill out the blank table about country's factors such as GDP (Gross Domestic Production) and industrialized rate. I could fill up the table with factors because every fact that I wanted to get was online. By clicking the mouse, it was a piece of cake. But understanding the idea of GDP was sore. Especially, GDP per Capita (GDP by population) was the height. To understand that, I spent two hours. understanding ideas are more important than learning facts because it encourages students' independency to do. Students can get fact that indicated by someone else such as experts and professors. Students depend on them. By depending on others, students cannot be independent. However, students should study and work to understand ideas and concepts. They have to figure it out what ideas are by themselves. It needs independency for students. I believe that it is more important for students to understand ideas and concepts than it is for them to learn facts because the facts are only useful after understanding general ideas and concepts. In addition, understanding the ideas need more time to do it and it encourages students' independency.

ANALYZE

Please examine the bold expressions below in terms of their usage, context and meaning.

No matter what is done to reduce car usage, **such as** increasing the age requirement, or investment in other modes of transportation, I believe that people cannot give up on cars due to the privacy and efficiency it provides.

Problems, **such as** environmental pollution, noise pollution and the rapid depletion of fuel reserves are the talk of the day.

Hence, it's always the younger generation that ends up in helping out the society. **For instance**, most of the latest discoveries and inventions are made by the young associated of scientist and professors.

Furthermore, young people get more and more responsibilities as they become older, **for instance**, the ones who study have to attend classes regularly, to do homework, to write a memoire or a these on a particular subject. Others will have to work, to care for their children or face money problems.

The stress on the students is so high these days that they hardly get time to entertain themselves. **That is**, they are always tangled with their studies and assignments they need to complete. In such case, they dont have time for other activities like improving their community.

This goes to show that unless an individual is confident about his capabilities, **that is**, he can deal with a vast number of subjects like Da Vinci did, he should not bite off more than he can chew.

This affects their ability to understand the problems of the communities they live in and find a solution for them. **In other words**, they do not help their communities because they are not able to help them.

So, if a company wants to develop its profits, this one must undergo risks, **in other words**, the riskier is an investment, the more lucrative it will be.

Automobile technology is one of the most progressive aspect of today 's generation. It has become the basic need of mankind. **In fact**, without the use of automobiles, life today would have been very difficult.

I disagree with the idea of a society formed by selfish young people. It 's not completely true. It depends on their family, their friends and their social background. **Indeed**, if you lived in a family where your parents think only about themselves because they are concentrated only on their job, it would be difficult to think helping the communities.

DISCOVER

You have examined the linkers below.

Such as	That is	In fact
For example	In other words	indeed

Based on your analyses please answer the questions below.

1. What is their function? When/where are they used?
2. How are they used in terms of grammar?
3. How are they used in terms of punctuation?
4. Are there any other expressions you use for the same functions as in question 1? How do you use them?

PRACTICE

Please read the paragraph below. Then, read the sentences in box B. Where in the paragraph do you think the sentences in Box B can be added? Please, can add them in the paragraph by using suitable linkers in Box A.

Box A

Such as	That is	In fact
For instance	In other words	indeed

Box B

we can adapt them when we work and when we do some research.
it devotes the development of subjects through doing the researches based on the concepts and theories that people have learned.
if in English classroom you just memorize some grammar to take a test, you easily forget what you learned and memorized after taking the test.
Therefore, understanding is more useful for the more study and the other area.
He can discover a new theory which is useful in the world.
Language learning and developing ideas

Paragraph:

Many people in my country believe that learning facts for the students are more important than understanding ideas and concepts because when students learn a lot of facts, it seems that they look intelligent and in general, they get good grades on their test in school. However, I do not agree with this idea for several reasons. **First of all**, when we understand ideas and concepts, we can use these ideas when we leave our schools. On the contrary, if you understand why and how this grammar is right or not, you will not forget this theory even after taking the test. Moreover, when you speak and write English, you can utilize the theory you have learned, **SUCH AS LANGAUGE LEARNING AND DEVELOPING IDEAS**. **Secondly**, understanding ideas and concepts allow us to explain and develop another concept in the future. For example, when a graduate student wants to do some researches in math, the student has to understand the concepts and ideas of math. And then, **he** starts to do some researches to develop the concepts or ideas that **he** wants to prove. **IN FACT, He can discover a new theory which is useful in the world**. This is thanks to the accumulation of understanding ideas and concepts on his math area. **In conclusion**, understanding ideas and concepts in some areas is much more important than learning facts because it is helpful to use and develop it outside classroom since it helps people to be creative.

G: WHILE TESTS

Name – Surname:

Task Name: TM-AD-P1

Please write an argumentative paragraph of about 150-200 words on the topic below:

*Do you agree or disagree with the following statement?
“Overall, the widespread use of the internet has a mostly positive effect on life in today’s world.”*

- ⇒ Please keep your cameras on while writing.
- ⇒ Please DO NOT use any dictionaries or DO NOT get any help from anyone/anything while writing.
- ⇒ Please save your file as *.doc* and submit it through OdtuClass.

PLEASE WRITE YOUR PARAGRAPH IN THIS BOX

Name – Surname: (please do not forget to write your names)

Task Name: TM-COM-P1

Please write an argumentative paragraph of about **150-200 words** on the topic

“Some students prefer classes with frequent discussions between the professor and the students with almost no lectures. Other students prefer classes with many lectures and almost no discussions” Which do you prefer? (Use specific reasons and examples to support your answer by comparing the two ideas)

below:

- ⇒ Please keep your cameras on while writing.
- ⇒ Please DO NOT use any dictionaries or DO NOT get any help from anyone/anything while writing.
- ⇒ Please DO NOT change the format of the word document and submit it through OdtuClass.

PLEASE WRITE YOUR PARAGRAPH IN THIS BOX

Name – Surname: (please do not forget to write your names)

Task Name: TM-CON-P1

Please write an argumentative paragraph of about **150-200 words** on the topic

Do you agree or disagree with the following statement?
“Human activity is making the earth a worse place to live.”
Use specific reasons and their possible effects as well as examples to support
your answer.

below:

- ⇒ Please keep your cameras on while writing.
- ⇒ Please DO NOT use any dictionaries or DO NOT get any help from anyone/anything while writing.
- ⇒ Please DO NOT change the format of the word document and submit it through OdtuClass.

PLEASE WRITE YOUR PARAGRAPH IN THIS BOX

Name – Surname: (please do not forget to write your names)

Task Name: FM-P1

Please write an argumentative paragraph of about **150-200 words** on the topic

Do you agree or disagree with the following statement?
“Grades encourage students to work harder at school.”
Use specific reasons as well as examples to support your opinion.

below:

- ⇒ Please keep your cameras on while writing.
- ⇒ Please DO NOT use any dictionaries or DO NOT get any help from anyone/anything while writing.
- ⇒ Please DO NOT change the format of the word document and submit it through OduClass.

PLEASE WRITE YOUR PARAGRAPH IN THIS BOX

Name – Surname: (please do not forget to write your names)

Task Name: CDG-P1

Please write an argumentative paragraph of about **150-200 words** on the topic

“Some students prefer to study and do homework alone. Others prefer to study and work on class assignments with a group of fellow students.”

Which do you prefer?

Use 2-3 specific reasons by comparing both options and examples to support your choice.

below:

- ⇒ Please keep your cameras on while writing.
- ⇒ Please DO NOT use any dictionaries or DO NOT get any help from anyone/anything while writing.
- ⇒ Please DO NOT change the format of the word document and submit it through OdtuClass.

PLEASE WRITE YOUR PARAGRAPH IN THIS BOX

H: POST-TEST

Name – Surname:

Task Name: Post-Test (Argumentative Paragraph Writing)

Please write an argumentative paragraph of about **150-200 words** on the topic below:

Do you agree or disagree with the following statement?
“It is better for parents to raise their children in the countryside than in a large city”.

Use 2-3 specific reasons by comparing both options and examples to support your idea.

- ⇒ Please keep your cameras on while writing.
- ⇒ Please DO NOT use any dictionaries or DO NOT get any help from anyone/anything while writing.
- ⇒ Please DO NOT change the format of the word document and submit it through OdtuClass.

Please write your paragraph in the box.

I: PROGRESS SURVEYS

PROGRESS SURVEY 1

Sevgili Öğrenciler,

Bu anket, sizlerin kullandığı üst söylem belirleyicilerini (metadiscourse markers) araştırmak amacıyla yaptığım çalışmanın bir parçasıdır. Sizden elde edilen veriler yalnızca bilimsel çalışmalarda kullanılacak olup isminiz gizli tutulacaktır.

(Dear Students,

This survey is a part of my work to investigate the metadiscourse markers you use. The data obtained from you will only be used in scientific studies and your name will be kept confidential)

Bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

1 = Çok Kolay

2 = Kolay

3 = Ne Zor Ne Kolay

4 = Zor

5 = Çok Zor

(Some questions were prepared using a 5-point Likert scale. The numbers for these questions represent the following statements:

1 = Very Easy

2 = Easy

3 = Neither Difficult nor Easy

4 = Difficult

5 = Very Difficult)

Çalışmanın verimli olabilmesi için soruları dürüstlikle cevaplamanız önemlidir. Katılımınız için teşekkürler *(For the study to be effective, it is important that you answer the questions honestly. Thanks for your participation).*

İletişim *(Contact):*

Çiler Hatipoğlu

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Cemre Çiçek Tümer

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Genel Bilgiler (General Information)

1. İsim-Soyisim (Name-Surname)

Bölüm 1 (Section 1)

Sizlerden bu zamana kadar, bir tanesi ön test olmak üzere toplamda dört adet tartışma paragrafı yazmanız istendi. Lütfen bu konuları değerlendiriniz (*So far, you have been asked to write a total of four argumentative paragraphs, one of which was the pre-test. Please rate the difficulty level of the topics of these argumentative paragraphs*).

1. "It is better for children to grow up in the countryside than in a large city." Bu konuyu kolaylık-zorluk açısından değerlendiriniz (*Please rate the difficulty level of the topic*).

	1	2	3	4	5	
Çok kolay (Very easy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Çok zor (Very hard)

2. "Overall, the widespread use of the internet has a mostly positive effect on life in today's world." Bu konu kolaylık-zorluk açısından değerlendiriniz (*Please rate the difficulty level of the topic*).

	1	2	3	4	5	
Çok kolay (Very easy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Çok zor (Very hard)

3. "Some students prefer classes with frequent discussions between the professor and the students with almost no lectures. Other students prefer classes with many lectures and almost no discussions" Which do you prefer? Bu konuyu kolaylık-zorluk açısından değerlendiriniz (*Please rate the difficulty level of the topic*).

	1	2	3	4	5	
Çok kolay (Very easy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Çok zor (Very hard)

4. "Human activity is making the earth a worse place to live." Bu konuyu kolaylık-zorluk açısından değerlendiriniz (*Please rate the difficulty level of the topic*).

	1	2	3	4	5	
Çok kolay (Very easy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Çok zor (Very hard)

5. Bu konular ile ilgili tartışmacı paragraf yazmayı üst söylem belirleyicileri (metadiscourse markers) eğitimi almadan ÖNCE nasıl değerlendirirdiniz? (*How would you evaluate writing an argumentative paragraph on these topics BEFORE you have received metadiscourse markers training?*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

6. Lütfen 5. soruda yaptığınız değerlendirmenin sebeplerini açıklayınız (*Please explain the reasons for your evaluation in question 5*).

7. Bu konular ile ilgili tartışmacı paragraf yazmayı üst söylem belirleyicileri (metadiscourse markers) eğitimi aldıktan SONRA nasıl değerlendiriyorsunuz? (*How do you evaluate writing an argumentative paragraph on these topics AFTER you have received metadiscourse markers training?*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

8. Lütfen 7. soruda yaptığınız değerlendirmenin sebeplerini açıklayınız (*Please explain the reasons for your evaluation in question 7*).

Bölüm 2 (Section 2)

Bu bölümde kullanmakta güçlük çektiğiniz üst söylem yapılarını (metadiscourse markers) işaretleyiniz (*In this section, mark the metadiscourse markers that you have difficulty using.*)

1. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using.*)

- moreover
- in addition (to)

- furthermore
- besides
- apart from
- what is more
- hiçbir

2. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz. (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- however
- while
- still
- rather than
- on the other hand
- although
- instead of
- even if
- even though
- yet
- though
- whereas
- nevertheless
- on the contrary
- despite
- in contrast to
- nonetheless
- in the same way
- when compared to
- in spite of
- likewise
- hiçbir

3. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz. (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- as
- therefore

- since
- thus
- due to
- lead to
- hence
- so that
- as a result
- result in
- hiçbirini

4. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

Bölüm 3 (Section 3)

Üst söylem belirleyicileriyle ilgili bir eğitim alıyorsunuz. Bu eğitim kapsamında her hafta, başarıları kanıtlanmış tartışmacı paragraflardan alınmış cümleler üzerinden üst söylem (metadiscourse) analiz çalışması yapıyor, bu yapıların kullanımları üzerine tartışıyor ve bu yapıları kullanarak bir alıştırmayı yapıyorsunuz. Lütfen bu bölümde alıyor olduğunuz üst söylem eğitimini düşünerek sorulara cevap veriniz (*You receive a training on metadiscourse markers. Within the scope of this training, every week, you do metadiscourse analysis through concordance lines, discuss the uses of these markers and do an exercise using them. Please answer the questions considering this training you have been receiving in this section.*)

1. Sizce bu eğitimde başarıları kanıtlanmış tartışmacı paragraflar kullanılmasının sebebi nedir? (*What do you think is the reason for using concordance lines in this training?*)

2. Bu eğitimin analiz kısmında kullanılan özgün (authentic) cümleleri zorluk-kolaylık derecesi bakımından değerlendiriniz (*Please evaluate the authentic sentences used in the analysis part of this training in terms of difficulty.*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

3. Bu eğitim sayesinde üst söylem (metadiscourse) kullanımını konusunda geliştiğinizi/gelişiyor olduğunuzu düşünüyor musunuz? Neden? Lütfen açıklayınız (*Do you think you are improving/developing in the use of metadiscourse thanks to this training? Please explain why.*)

4. Bu eğitimi yöntem ve kaynak bakımından değerlendirdiğinizde FAYDALI buluyor musunuz? Neden? Lütfen açıklayınız (*When you evaluate this training in terms of methods and resources, do you find it useful? Please explain why.*)

5. Bu eğitimi yöntem ve kaynak bakımından değerlendirdiğinizde YETERLİ buluyor musunuz? Neden? Lütfen açıklayınız (*When you evaluate this training in terms of method and resources, do you find it adequate? Please explain why.*)

6. Bu eğitim sayesinde üst söylem yapılarının önemi hakkındaki düşünceleriniz değişti mi? Nasıl? Lütfen açıklayınız (*Have you changed your thoughts about the importance of metadiscourse markers thanks to this training? How? Please explain.*)

7. Bu eğitim sayesinde üst söylem yapılarını kullanırken kendinize daha çok güveniyor musunuz? Neden? Lütfen açıklayınız (*Do you feel more confident when using metadiscourse markers thanks to this training? Please explain why.*)

8. Bu eğitim sayesinde genel olarak İngilizce yazma becerilerinizin geliştiğini düşünüyor musunuz? Lütfen açıklayınız (*Do you think that your English writing skills have improved in general thanks to this training? Please explain.*)

9. Bu tarzda eğitim almaya devam etmek istiyor musunuz? Neden? (*Would you like continue receiving this training? Why?*)

PROGRESS SURVEY 2

Sevgili Öğrenciler,

Bu anket, sizlerin kullandığı üst söylem belirleyicilerini (metadiscourse markers) araştırmak amacıyla yaptığım çalışmanın bir parçasıdır. Sizden elde edilen veriler yalnızca bilimsel çalışmalarda kullanılacak olup isminiz gizli tutulacaktır.

(Dear Students,

This survey is a part of my work to investigate the metadiscourse markers you use. The data obtained from you will only be used in scientific studies and your name will be kept confidential)

Bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Bu sorular için rakamlar şu ifadeleri temsil etmektedir.

1 = Çok Kolay

2 = Kolay

3 = Ne Zor Ne Kolay

4 = Zor

5 = Çok Zor

(Some questions were prepared using a 5-point Likert scale. The numbers for these questions represent the following statements:

1 = Very Easy

2 = Easy

3 = Neither Difficult nor Easy

4 = Difficult

5 = Very Difficult)

Çalışmanın verimli olabilmesi için soruları dürüstlikle cevaplamanız önemlidir.

Katılımınız için teşekkürler *(For the study to be effective, it is important that you answer the questions honestly. Thanks for your participation).*

İletişim *(Contact):*

Çiler Hatipoğlu

ciler@metu.edu.tr

Cemre Çiçek Tümer

cemre.cicek@metu.edu.tr

Genel Bilgiler (General Information)

1. İsim-Soyisim (Name-Surname)

Bölüm 1 (Section 1)

Sizlerden eğitimimizin 5. ve 6. haftalarında iki adet tartışmacı paragraf yazmanız istendi. Lütfen bu konuları zorluk-kolaylık açısından değerlendiriniz (*You were asked to write two reflection paragraphs during the 5th and 6th weeks of our training. Please rate these topics in terms of difficulty*)

1. "Grades encourage students to work harder at school." Bu konuyu kolaylık-zorluk açısından değerlendiriniz (*Please rate the difficulty level of the topic*).

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

2. Some students prefer to study and do homework alone. Others prefer to study and work on class assignments with a group of fellow students. Which do you prefer? Bu konuyu kolaylık-zorluk açısından değerlendiriniz (*Please rate the difficulty level of the topic*).

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

3. Bu konular ile ilgili tartışmacı paragraf yazmayı üst söylem belirleyicileri (metadiscourse markers) eğitimi almadan ÖNCE nasıl değerlendirirdiniz? (*How would you evaluate writing an argumentative paragraph on these topics BEFORE you received metadiscourse markers training?*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

4. Lütfen 3. soruda yaptığımız değerlendirmenin sebeplerini açıklayınız (*Please explain the reasons for your evaluation in question 3*).

5. Bu konular ile ilgili düşünce/fikir paragrafı yazmayı üst söylem belirleyicileri (metadiscourse markers) eğitimi aldıktan SONRA nasıl değerlendiriyorsunuz? (How do you evaluate writing an argumentative paragraph on these topics AFTER you have received metadiscourse markers training?)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

6. Lütfen 5. soruda yaptığınız değerlendirmenin sebeplerini açıklayınız (Please explain the reasons for your evaluation in question 3).

Bölüm 2 (Section 2)

Bu bölümde kullanmakta güçlük çektiğiniz üst söylem yapılarını (metadiscourse markers) işaretleyiniz (In this section, mark the metadiscourse markers that you have difficulty using).

1. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using).

- first
- first of all
- firstly
- second
- secondly
- another reason
- finally
- third
- thirdly
- in conclusion
- to conclude
- to sum up
- there are many reasons
- there are several reasons
- for several reasons
- hiçbirisi

2. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

3. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- such as
- for instance
- that is
- in other words
- of course
- especially
- hiçbiri

4. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

Bölüm 3 (Section 3)

1. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- moreover
- in addition (to)
- furthermore
- besides
- apart from
- what is more
- hiçbiri

2. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

3. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- however
- while
- still
- rather than
- on the other hand
- although
- instead of
- even if
- even though
- yet
- though
- whereas
- nevertheless
- on the contrary
- despite
- in contrast to
- nonetheless
- in the same way
- when compared to
- in spite of
- likewise
- hiçbiri

4. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

5. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- as
- therefore
- since
- thus
- due to
- lead to
- hence
- so that
- as a result
- result in
- hiçbiri

6. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

Bölüm 4 (Section 4)

Üst söylem belirleyicileriyle ilgili bir eğitim alıyorsunuz. Bu eğitim kapsamında her hafta, başarıları kanıtlanmış tartışmacı paragraflarda alınmış cümleler üzerinden üst söylem (metadiscourse) analiz çalışması yapıyor, bu yapıların kullanımları üzerine tartışıyor ve bu yapıları kullanarak bir alıştırmaya yapıyorsunuz. Lütfen bu bölümde alıyor olduğunuz üst söylem eğitimi düşünerek sorulara cevap veriniz. (*You receive a training on metadiscourse markers. Within the scope of this training, every week, you do metadiscourse analysis through concordance lines, discuss the uses of these markers and do an exercise using them. Please answer the questions considering this training you have been receiving in this section.*)

1. Bu eğitimin (5. ve 6. Haftalarda) analiz kısmında kullanılan özgün (authentic) cümleleri zorluk-kolaylık derecesi bakımından değerlendiriniz (*Please evaluate the authentic sentences used in the analysis part of this training in terms of difficulty*).

	1	2	3	4	5	
Çok kolay (<i>Very easy</i>)						Çok zor (<i>Very hard</i>)

2. Bu eğitim sayesinde üst söylem (metadiscourse) kullanımı konusunda geliştiğinizi/gelişiyor olduğunuzu düşünüyor musunuz? Neden? Lütfen açıklayınız (*Do you think you are improving/developing in the use of metadiscourse thanks to this training? Please explain why*).

3. Bu eğitimi yöntem ve kaynak bakımından değerlendirdiğinizde FAYDALI buluyor musunuz? Neden? Lütfen açıklayınız (*When you evaluate this training in terms of methods and resources, do you find it useful? Please explain why*).

4. Bu eğitimi yöntem ve kaynak bakımından değerlendirdiğinizde YETERLİ buluyor musunuz? Neden? Lütfen açıklayınız (*When you evaluate this training in terms of method and resources, do you find it adequate? Please explain why*).

5. Bu eğitim sayesinde üst söylem yapılarının önemi hakkındaki düşünceleriniz değişti mi? Nasıl? Lütfen açıklayınız (*Have you changed your thoughts about the importance of metadiscourse markers thanks to this training? How? Please explain*).

6. Bu eğitim sayesinde üst söylem yapılarını kullanırken kendinize daha çok güveniyor musunuz? Neden? Lütfen açıklayınız (*Do you feel more confident when using metadiscourse markers thanks to this training? Please explain why*).

7. Bu eğitim sayesinde genel olarak İngilizce yazma becerilerinizin geliştiğini düşünüyor musunuz? Lütfen açıklayınız (*Do you think that your English writing skills have improved in general thanks to this training? Please explain*).

8. Sizce, bu eğitimin avantajları nedir? Açıklayınız (*What do you think are the advantages of this training? Please explain*).

9. Sizce, bu eğitimin dezavantajları nedir? Açıklayınız (*What do you think are the disadvantages of this training? Please explain*).

10. Bu eğitimin işleyişi, kullanılan materyaller, alıştırmalar açısından düşündüğünüzde herhangi bir şeyi değiştirmek ister miydiniz neden? (*When you think about how the system of the training, the materials used and the exercises, would you want to change anything? Why?*)

J: POST SURVEY

Sevgili Öğrenciler,

Bu anket, sizlerin kullandığı üst söylem belirleyicilerini (metadiscourse markers) araştırmak amacıyla yaptığım çalışmanın bir parçasıdır. Sizden elde edilen veriler yalnızca bilimsel çalışmalarda kullanılacak olup isminiz gizli tutulacaktır.

(Dear Students,

This survey is a part of my work to investigate the metadiscourse markers you use. The data obtained from you will only be used in scientific studies and your name will be kept confidential)

Bu ankette 3 bölüm ve toplamda 75 soru bulunmaktadır. Tüm anketin 20-30 dakika sürmesi beklenmektedir.

1. Bölüm: 5 soru
2. Bölüm: 10 soru
3. Bölüm: 60 soru

(This survey has 3 sections and 75 questions in total. The entire survey is expected to take 20-30 minutes.

Part 1: 5 questions

Part 2: 10 questions

Part 3: 60 questions)

Bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Bu tip sorular içinden: *(Some questions were prepared using a 5-point Likert scale. These types of questions include)*

Zorluk-kolaylık içerikli sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Çok Kolay
- 2 = Kolay
- 3 = Ne Zor Ne Kolay
- 4 = Zor
- 5 = Çok Zor

(For difficulty evaluation questions, the numbers represent the following expressions:

1 = Very Easy

2 = Easy

3 = Neither Difficult nor Easy

4 = Difficult

5 = Very Difficult)

Fikrinizi soran sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(For questions asking your opinion, the numbers represent the following statements:

- 1 = I strongly disagree
- 2 = Disagree
- 3 = I'm not sure
- 4 = I agree
- 5 = I totally agree)

Çalışmanın verimli olabilmesi için soruları dürüstlük ve detaylı bir şekilde cevaplamanız önemlidir. Katılımınız için şimdiden çok teşekkür ederiz (For the study to be effective, it is important that you answer the questions honestly and in detail. Thank you very much in advance for your participation.)

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Genel Bilgiler (General Information)

1. İsim Soyisim (Name-Surname):

Bölüm 1 (Section 1)

Bu hafta sizlerden son test olarak bir tartışmacı paragraf yazmanız istendi. Lütfen bu paragrafın KONUSUNU zorluk-kolaylık açısından değerlendiriniz (This week, you were asked to write an argumentative paragraph as a post-test. Please evaluate the TOPIC of this paragraph in terms of difficulty).

1. Do you agree or disagree with the following statement? "It is better for parents to raise children in the countryside than in a large city".

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

2. Bu konular ile ilgili tartışmacı paragraf yazmayı üst söylem belirleyicileri (metadiscourse markers) eğitimi almadan ÖNCE nasıl değerlendirirdiniz? (*How would you evaluate writing an argumentative paragraph on these topics BEFORE you received metadiscourse markers training?*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

3. Lütfen 2. soruda yaptığınız değerlendirmenin sebeplerini açıklayınız (*Please explain the reasons for your evaluation in question 2*).

4. Bu konular ile ilgili tartışmacı paragraf yazmayı üst söylem belirleyicileri (metadiscourse markers) eğitimi aldıktan SONRA nasıl değerlendiriyorsunuz? (*How do you evaluate writing an argumentative paragraph on these topics AFTER you have received metadiscourse markers training?*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

5. Lütfen 4. soruda yaptığınız değerlendirmenin sebeplerini açıklayınız (*Please explain the reasons for your evaluation in question 2*).

Bölüm 2 (Section 2)

Bu bölümde kullanmakta güçlük çektiğiniz üst söylem yapılarını (metadiscourse markers) işaretleyiniz (*In this section, mark the metadiscourse markers that you have difficulty using*).

1. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz. (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- moreover
- in addition (to)
- furthermore
- besides
- apart from
- what is more
- hiçbirini

2. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

3. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- however
- while
- still
- rather than
- on the other hand
- although
- instead of
- even if
- even though
- yet
- though
- whereas
- nevertheless
- on the contrary
- despite
- in contrast to
- nonetheless
- in the same way
- when compared to
- in spite of
- likewise
- hiçbirini

4. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

5. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- as
- therefore
- since
- thus
- due to
- lead to
- hence
- so that
- as a result
- result in
- hiçbiri

6. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

7. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- first
- first of all
- firstly
- second
- secondly

- another reason
- finally
- third
- thirdly
- in conclusion
- to conclude
- to sum up
- there are many reasons
- there are several reasons
- for several reasons
- hiçbiri

8. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

9. Aşağıdaki üst söylem yapılarından hangilerini kullanırken zorluk çekiyorsunuz? Lütfen kullanmakta zorlandığınız yapıların tümünü işaretleyiniz (*Which of the following metadiscourse markers do you have difficulty using? Please tick all the structures that you have difficulty using*).

- such as
- for instance
- that is
- in other words
- of course
- especially
- hiçbiri

10. Seçmiş olduğunuz yapıları öğrenmek ve/veya kullanmakta neden zorlanıyorsunuz? (*Why do you have difficulty in learning and/or using the structures you have chosen?*)

Bölüm 3 (Section 3)

Etkileşimli üst söylem belirleyicileriyle ilgili 5 haftalık bir eğitim aldınız. Bu eğitim kapsamında her hafta farklı bir grup etkileşimli üst söylem aracını (interactive metadiscourse markers), geçmiş TOEFL sınavlarından yüksek not alan tartışmacı paragraflardan alınmış cümleler üzerinden analiz ettiniz, bu araçların kullanımları üzerine tartıştınız, bu yapıları kullanarak bir alıştırmayı yaptınız ve son olarak her hafta farklı bir konuda tartışmacı paragraf yazıp, aynı hafta içinde paragraflarınıza geridönüt (feedback) aldınız.

(You received a 5-week training on interactive metadiscourse markers. Within the scope of this training, you analyzed a different group of interactive metadiscourse markers each week through concordance lines, discussed the use of these devices, did exercises using these structures. Finally, each week, you wrote an argumentative paragraph on a different topic and received feedback on your paragraphs within the same week)

Ayrıca, son iki hafta, geçmiş TOEFL sınavlarından yüksek not alan tartışmacı paragraflardan seçilmiş toplamda 6 örnek paragraf, incelemeniz ve kullanmakta zorlandığımız üst söylem araçlarını tekrar etmeniz için sizinle paylaşıldı.

(In addition, a total of 6 sample paragraphs selected from the argumentative paragraphs from the TOEFL-11 corpus have been shared with you for your analysis and review of the metadiscourse devices that you have difficulty using in the last two weeks)

Son olarak, eğitimlerin bitimini takip eden hafta, sizinle bir tekrar dersi 'revision session' yapıldı *(Finally, following the end of the trainings, a review session was held with you.)*

Bu bölümdeki soruların amacı, sizlerin, almış olduğunuz etkileşimli üst söylem yapıları eğitimi hakkındaki detaylı görüşlerini öğrenmektir. Lütfen, bu bölümdeki sorulara almış olduğunuz bu üst söylem eğitimi düşünerek cevap veriniz.

(The purpose of the questions in this section is to learn your detailed views on the interactive metadiscourse markers training you have received. Please answer the questions in this section by considering this metadiscourse training you have received)

Part 1 Analyze

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimiz, her hafta "Analyze" kısmıyla başlamıştı ve bu bölümde sizden o haftanın konusu olan bir grup etkileşimli üst söylem belirleyicisini, geçmiş TOEFL sınavlarından yüksek not almış tartışmacı paragraflardan seçilmiş cümleler/paragraflar üzerinden, analiz etmeniz istenmişti.

(Our 5-week interactive metadiscourse markers training started with the "Analyze" section each week, and in this section, you were asked to analyze a group of

interactive metadiscourse markers, which were the subject of that week, through selected sentences/paragraphs argumentative in the TOEFL-11 corpus)

1-5. sorular, sizlerin eğitimin 'analyze' kısmı hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*The questions 1-5 aim to get your views on the 'analyze' part of the training.*)

1. "Analyze" kısmında kullanılan ve geçmiş TOEFL sınavlarından yüksek not almış tartışmacı paragraflardan seçilmiş cümleleri/paragrafları zorluk-kolaylık bakımından değerlendiriniz (*Evaluate the sentences/paragraphs selected from the argumentative paragraphs, which were used in the "Analyze" section and received high marks from past TOEFL exams, in terms of difficulty*)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

2. Lütfen, 1. soruda yapmış olduğunuz değerlendirmeyi açıklayınız (*Please explain your evaluation in question 1*)

3. Sizce "analyze" kısmının amacı neydi? (*What do you think was the purpose of the "Analyze" part?*)

4. Sizce "analyze" kısmının avantajları nelerdi? Lütfen açıklayınız (*What do you think were the advantages of the "analyze" part? Please explain.*)

5. Sizce "analyze" kısmının dezavantajları nelerdi? Lütfen açıklayınız (*What do you think were the disadvantages of the "analyze" part? Please explain.*)

Part 2: Discover

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimizin ikinci kısmı "Discover" kısmıyla devam etmişti. Bu bölümde sizden yapmış olduğunuz analizler ışığında belirli soruları yanıtlamanız istenmişti.

(The second part of our 5-week interactive metadiscourse markers training continued with the "Discover" part. In this part, you were asked to answer certain questions in the light of the analyzes you have made)

6-10. sorular, sizlerin "discover" kısmı hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*Questions 6-10 aim to get your views on the "discover" part.*)

Bu bölümdeki bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(Some questions in this section were prepared using 5-point Likert scale. The numbers for these questions represent the following statements:

- 1 = I strongly disagree*
- 2 = Disagree*
- 3 = I'm not sure*
- 4 = I agree*
- 5 = I totally agree)*

6. "Discover" kısmında sorulan sorular açık ve amacına uygundu (*The questions asked in the "Discover" part were clear and relevant.*)

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

7. Lütfen, 6. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation in question 6*)

8. Sizce "discover" kısmın amacı neydi? (*What do you think was the purpose of the "discover" part?*)

9. Sizce, "discover" kısmının avantajları nelerdi? Lütfen açıklayınız (*What do you think were the advantages of the "discover" part? Please explain.*)

10. Sizce, "discover" kısmının dezavantajları nelerdi? Lütfen açıklayınız (*What do you think were the disadvantages of the "discover" part? Please explain.*)

Part 3: Practice

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimizin üçüncü kısmı "practice" kısmıyla devam etmişti ve bu bölümde sizden o haftanın konusu olan üst söylem araçlarını kullanıp, boşluk doldurma ya da cloze test gibi alıştırmalarla pratik yapmanız istenmişti.

(The third part of our 5-week interactive metadiscourse markers training continued with the "practice" part, where you were asked to practice using metadiscourse devices, which were the focus of the week, with exercises such as fill in the blanks or cloze test)

11-15. sorular, sizlerin "practice" kısmı hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*Questions 11-15 aim to get your views on the "practice" part*)

Bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Zorluk-kolaylık içerikli sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Çok Kolay
- 2 = Kolay
- 3 = Ne Zor Ne Kolay
- 4 = Zor
- 5 = Çok Zor

(Some questions were prepared using 5-point Likert scale. For task difficulty questions, the numbers represent the following expressions:

- 1 = *Very Easy*
2 = *Easy*
3 = *Neither Difficult nor Easy*
4 = *Difficult*
5 = *Very Difficult*

11. "practice" kısmındaki alıştırmaları zorluk-kolaylık açısından değerlendiriniz
(Please evaluate the exercises on "practice" part in terms of task difficulty)

	1	2	3	4	5	
Çok kolay (Very easy)						Çok zor (Very hard)

12. Lütfen, 11. soruda yaptığımız değerlendirmeyi açıklayınız (Please explain your evaluation in question 11).

13. Sizce "practice" kısmının amacı neydi? (What do you think was the purpose of the "practice" part?)

14. Sizce "practice" kısmın avantajları nelerdi? Lütfen açıklayınız? (What do you think were the advantages of the "practice" part? Please explain).

15. Sizce "practice" kısmın dezavantajları nelerdi? Lütfen açıklayınız? (What do you think were the disadvantages of the "practice" part? Please explain).

Part 4: Write

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimizin son kısmında, sizden her hafta farklı konularda tartışmacı paragraflar yazmanız istendi (In the last part of our 5-week interactive metadiscourse markers training, you were asked to write argumentative paragraphs on different topics each week).

16-20. sorular, sizlerin "write" kısmı hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*Questions 16-20 aim to get your views on the "Write" part*).

Bu bölümdeki bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır.

Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(Some questions in this section were prepared using 5-point Likert scale. The numbers for these questions represent the following statements:

- 1 = I strongly disagree*
- 2 = Disagree*
- 3 = I'm not sure*
- 4 = I agree*
- 5 = I totally agree*

16. Yazdığım tartışmacı paragrafları yazarken konusu yüzünden zorluk çekmedim (*While I was writing the argumentative paragraphs, I did not have any difficulties because of the topic*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (Totally disagree)						Kesinlikle katılıyorum (Totally agree)

17. Lütfen, 16. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation in question 16*).

18. Sizce "write" kısmın amacı neydi? (*What do you think was the purpose of the "write" part?*).

19. Sizce, her hafta tartışmacı paragraf yazmanın avantajları nelerdi? (*What do you think were the advantages of writing an argumentative paragraph every week?*)

20. Sizce, her hafta tartışmacı paragraf yazmanın avantajları nelerdi? (*What do you think were the disadvantages of writing an argumentative paragraph every week?*)

Feedback

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimiz kapsamında yazdığınız tartışmacı paragraflar için her hafta geridönüt aldınız (*You received feedback every week for the argumentative paragraphs you wrote within the scope of our 5-week interactive metadiscourse markers training*).

21-25. sorular, sizlerin aldığınız feedback hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*Questions 21-25 aim to get your views on the "Feedback" part*).

Bu bölümdeki bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(*Some questions in this section were prepared using 5-point Likert scale. The numbers for these questions represent the following statements:*

- 1 = I strongly disagree
- 2 = Disagree
- 3 = I'm not sure
- 4 = I agree
- 5 = I totally agree)

21. Yazdığım tartışmacı paragraflara aldığım "feedback" açık ve netti (*The "feedback" I got to the argumentative paragraphs I wrote was clear and concise*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

22. Lütfen, 21. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation in question 21*).

23. Yazdığım tartışmacı paragraflara feedback almak faydalıydı (*It was helpful to get feedback on the argumentative paragraphs I wrote*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

24. Sizce, aldığınız "feedback"lerin avantajları nelerdi? Açıklayınız (*In your opinion, what were the advantages of the feedback you received? Please explain*).

25. Sizce, aldığınız "feedback"lerin dezavantajları nelerdi? Açıklayınız (*In your opinion, what were the disadvantages of the feedback you received? Please explain*).

Sample Paragraphs

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimizin son iki haftasında sizlerle son iki hafta, geçmiş TOEFL sınavlarından yüksek not alan tartışmacı paragraflardan seçilmiş toplamda 6 örnek paragraf, incelemeniz ve kullanmakta zorlandığınız üst söylem araçlarını tekrar etmeniz için sizinle paylaşıldı.

(*In the last two weeks of our 5-week interactive metadiscourse markers training, a total of 6 sample paragraphs, selected from the argumentative paragraphs that received high marks from the past TOEFL exams, were shared with you for you to review and repeat the metadiscourse tools you had difficulty using*)

27-31. sorular, sizlerin bu örnek paragraflar hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*Questions 27-31 aim to get your views on these sample paragraphs.*)

26. soru 1-5 arası deęerleri gsteren doęrusal lek kullanılarak hazırlanmıřtır. Bu sorular iin rakamlar řu ifadeleri temsil etmektedir.

- 1 = ok Kolay
- 2 = Kolay
- 3 = Ne Zor Ne Kolay
- 4 = Zor
- 5 = ok Zor

(Question 26 was prepared using 5-point Likert scale. The numbers for these questions represent the following statements.

- 1 = Very Easy
- 2 = Easy
- 3 = Neither Hard nor Easy
- 4 = Difficult
- 5 = Very Difficult)

28. soru 1-5 arası deęerleri gsteren doęrusal lek kullanılarak hazırlanmıřtır. Bu sorular iin rakamlar řu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin deęilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(Question 26 was prepared using 5-point Likert scale. The numbers for these questions represent the following statements.

- 1 = I strongly disagree
- 2 = Disagree
- 3 = I'm not sure
- 4 = I agree
- 5 = I totally agree)

26. Ltfen, rnek paragrafları zorluk-kolaylık bakımından deęerlendiriniz *(Please evaluate the example paragraphs in terms of difficulty).*

	1	2	3	4	5	
ok kolay (Very easy)						ok zor (Very hard)

27. Ltfen, 26. soruda yaptığınız deęerlendirmeyi aıklayınız *(Please explain your evaluation on question 26).*

28. Bence, örnek paragraf paylaşımı faydalıydı (*I think, providing us with sample paragraphs was useful*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

29. Lütfen, 28. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 29*).

30. Sizce, örnek paragraf paylaşımının avantajları nelerdi? Açıklayınız (*In your opinion, what were the advantages of providing sample paragraphs? Please explain*).

31. Sizce, örnek paragraf paylaşımının dezavantajları nelerdi? Açıklayınız (*In your opinion, what were the disadvantages of providing sample paragraphs? Please explain*).

Revision Session

5 haftalık etkileşimli üst söylem belirleyicileri eğitimlerimizin bitiminde, sizlerle tekrar amaçlı ve muhtemel sorularınızı sorabilmeniz için "revision session" yapıldı (*At the end of our 5-week interactive metadiscourse markers training, a "revision session" was held so that you could ask your questions*).

32.-35. sorular, sizlerin revision session hakkındaki görüşlerinizi öğrenmeyi amaçlamaktadır (*Questions 27-31 aim to get your views on these sample paragraphs*).

Bu bölümdeki bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır. Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim

4 = Katılıyorum
5 = Kesinlikle katılıyorum

(Some questions in this part were prepared using a 5-point Likert scale The numbers for these questions represent the following statements:

1 = I strongly disagree
2 = Disagree
3 = I'm not sure
4 = I agree
5 = I totally agree)

32. Bence "revision session" faydalıydı (*I think revision session was useful*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (Totally disagree)						Kesinlikle katılıyorum (Totally agree)

33. Lütfen, 32. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 29*).

34. Sizce "revision session"ın avantajları nelerdi? Açıklayınız (*In your opinion, what were the advantages revision session? Please explain*).

35. Sizce "revision session"ın dezavantajları nelerdi? Açıklayınız (*In your opinion, what were the disadvantages revision session? Please explain*).

Derlem Kullanımı ve Etkileşimli Üst Söylem Yapıları Eğitimi (*Corpus Use and Interactive Metadiscourse Marker Training*)

Derlem (corpus), bilgisayar ortamında depolanan ve dilin nasıl kullanıldığını bulmak için kullanılan yazılı veya sözlü materyal koleksiyonu demektir (*A corpus is a collection of written or spoken material that is stored in a computer environment and used to find out how language is used*).

Tüm eğitimlerimiz boyunca sizlerle paylaşılan tüm cümle ve paragraflar ve örnekler, geçmiş TOEFL sınavlarının yazma kısımlarından yüksek not almış tartışmacı paragraflardan oluşan bir derlem (corpus) içinden seçilmiştir (*All sentences, paragraphs and examples shared with you throughout all our trainings have been selected from a corpus of argumentative paragraphs that have received high marks from the writing parts of past TOEFL exams*).

36-44. sorular writing becerisi gelişimi ve etkileşimli üst söylem belirleyicileri eğitimde derlem (corpus) kullanımı hakkındaki düşüncelerinizi öğrenmek için hazırlanmıştır.

Bu bölümdeki bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır.

Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(Questions 36-44 are prepared to learn your thoughts about writing skill development and interactive metadiscourse markers training using corpus. Some questions in this section were prepared using a 5-point Likert scale.

The numbers for these questions represent the following statements:

- 1 = I strongly disagree*
- 2 = Disagree*
- 3 = I'm not sure*
- 4 = I agree*
- 5 = I totally agree*

36. Sizce bu eğitimlerde derlem (corpus) kullanımının amacı neydi? (*What do you think was the purpose of using corpus in these trainings?*)

37. Derlem (corpus) kullanımı, etkileşimli üst söylem araçlarını öğrenmemi sağladı (*Using corpus enabled me to learn interactive metadiscourse markers*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

38. Lütfen, 37. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 37*).

39. Derlem (corpus) kullanımı, genel olarak İngilizce tartışmacı paragraf yazma becerilerimi geliştirmemi sağladı (*Using corpus helped me improve my writing an argumentative paragraph skill in English*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

40. Lütfen, 39. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 39*).

41. Bence, etkileşimli üst söylem araçlarını derlem (corpus) üzerinden öğrenmek başarılı bir yöntemdir (*In my opinion, learning interactive metadiscourse markers through corpus is a successful method*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

42. Lütfen, 41. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 41*).

43. Bence genel olarak derlem (corpus), İngilizce yazma becerileri gelişimi için faydalı bir kaynaktır (*I think the corpus is a useful resource for English writing skills development in general*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

44. Lütfen, 43. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 43*).

Etkileşimli Üst Söylem Yapıları Eğitimi Hakkındaki Genel Düşünceler (*General Thoughts on Interactive Metadiscourse Markers Training*)

Bu bölümdeki sorular (45-53. sorular), 5 haftalık etkileşimli üst söylem araçları eğitimi hakkındaki genel düşüncelerinizi öğrenmeyi amaçlamaktadır (*The questions in this part (questions 45-53) aim to learn your general thoughts on the 5-week interactive metadiscourse tools training*).

Bu bölümdeki bazı sorular 1-5 arası değerleri gösteren doğrusal ölçek kullanılarak hazırlanmıştır (*Some questions in this section were prepared using 5-point Likert scale*)

Bu sorular için rakamlar şu ifadeleri temsil etmektedir:

- 1 = Kesinlikle katılmıyorum
- 2 = Katılmıyorum
- 3 = Emin değilim
- 4 = Katılıyorum
- 5 = Kesinlikle katılıyorum

(*The numbers for these questions represent the following statements:*

- 1 = I strongly disagree*
- 2 = Disagree*
- 3 = I'm not sure*
- 4 = I agree*
- 5 = I totally agree*)

45. Bu eğitim sayesinde etkileşimli üstsöylem (interactive metadiscourse) kullanımını konusunda geliştiğimi düşünüyorum (*Thanks to this training, I think I have improved in the use of interactive metadiscourse markers*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

46. Lütfen, 45. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 45*).

47. Bu eğitim sayesinde genel olarak İngilizce yazma becerilerimin geliştiğini düşünüyorum (*Thanks to this training, I think that my English writing skills have improved in general*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

48. Lütfen, 47. soruda yaptığınız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 47*).

49. Bu eğitim sayesinde üst söylem yapılarını kullanırken kendime daha çok güveniyorum (*Thanks to this training, I feel more confident when using metadiscourse markers*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

50. Lütfen, 49. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 49*).

51. Bu eğitim sayesinde üst söylem yapılarının önemi hakkındaki düşünceleriniz değişti mi? Nasıl? Lütfen açıklayınız (*Have you changed your thoughts about the importance of metadiscourse markers thanks to this training? How? Please explain*).

52. Bu eğitimi, yöntem bakımından faydalı buluyorum (*I find this training useful in terms of its methodology*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

53. Lütfen, 52. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 52*).

54. Bu eğitimi, kaynak bakımından faydalı buluyorum (*I find this training useful in terms of its resources*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

55. Lütfen, 54. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 54*).

56. Bu eğitimde kullanılan kaynaklar amacına uygundur (*The resources used in this training are fit for purpose*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

57. Lütfen, 56. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 56*).

58. Bu eğitimi kaynak bakımından yeterli buluyorum (*I find this training sufficient in terms of its resources*).

	1	2	3	4	5	
Kesinlikle katılmıyorum (<i>Totally disagree</i>)						Kesinlikle katılıyorum (<i>Totally agree</i>)

59. Lütfen, 58. soruda yaptığımız değerlendirmeyi açıklayınız (*Please explain your evaluation on question 58*).

60. Bu eğitimin işleyişi, kullanılan materyaller, alıştırmalar açısından düşündüğünüzde herhangi bir şeyi değiştirmek ister miydiniz? Neden? (*When you think about the system of this training, the materials used and the exercises would you like to change anything? Why/Why not?*)

K: TURKISH SUMMARY / TÜRKÇE ÖZET

VERİ YÖNETİMLİ ÖĞRENME VE BİRİNCİ SINIF İNGİLİZCE ÖĞRETMENLİĞİ BÖLÜMÜ ÖĞRENCİLERİ TARAFINDAN YAZILAN TARTIŞMACI PARAGRAFLARDA ETKİLEŞİMLİ ÜST SÖYLEM YAPILARININ (BAĞLAYICILAR, ÇERÇEVE BELİRLEYİCİLER VE KOD ÇÖZÜMLEYİCİLER) KULLANIMI

Prommas ve Sinwongsuwat (2011)' a göre yazma sadece dilbilgisi kurallarına uygun cümleleri peş peşe yazmayı içermez. Bu sebeple, bir paragrafı oluşturan cümlelerin uyum içinde ve mantıklı olması da yazarın yazılı söylem kabiliyetini ortaya koymakta oldukça önemlidir. Bu kabiliyet, aynı zamanda yazının türüne uygun yazma, dili gereğine uygun bir şekilde kullanma ve konuyla alakalı ve geçerli fikirler ortaya atmayı da kapsamaktadır.

Yazılı söylem kabiliyeti denilince, kullanılan dilin sosyokültürel değerleri ve beklentileri de önem arz etmektedir. Bu bağlamda Kaplan (1966), yazma becerisinin nasıl algılandığı ve düzenlendiğinin dilden dile ve kültürden kültüre farklılık gösterdiği savını ortaya atmıştır. Bu sav göz önünde bulundurulduğunda, yabancı dil olarak İngilizce öğrenen bireylerin, İngilizce bir yazı yazarken kendi anadillerinin ve kültürlerinin gerektirdiği normları kullanmaları, onların İngilizce olarak yazdıkları yazıların yetersiz olarak algılanmasına sebep olabilir (Uysal, 2008). Bu yüzden, Hatipoğlu ve Algı (2017), kişinin yabancı dilde yazarken o dilin normlarına uygun bir şekilde fikirlerini organize etmesi gerekliliğine ve o dilin yazılı söylem stratejilerine hâkim olması gerekliliğine dikkat çekmiştir. Fakat, bu alandaki alan yazın incelendiğinde yabancı dil olarak İngilizce öğrenen bireyler için bu kabiliyetin oldukça zor olduğu görülmüştür. (Field ve Yip, 1992; Granger ve Tyson, 1996; Lorenz, 1999; Gilquin ve Paquot, 2008).

Hyland (1998, s. 438) üst söylemi “söylemin organizasyonuna veya yazarın içeriğine veya okuyucusuna karşı duruşuna açıkça atıfta bulunan dilsel ve

kişilerarası araçlar” olarak tanımlar. Yani, üst söylem yazarın kastettiği mesajı okuyucusuna taşıması ve fikirlerin bir yazıda nasıl bağlandığını ortaya koymasıyla yazar ve okuyucu arasındaki köprü konumundadır (Vande Kopple, 1985; Crismore, Markkanen ve Steffensen,1993). Lakin, üst söylemi kavramak her zaman kolay olmayabilir çünkü üst söylem yapıları çok çeşitli dilbilimsel yapılardan oluşur (Hyland ve Tse, 2004).

Bunun yanı sıra, üst söylem de tıpkı yazılı söylem becerisi gibi kültürlerarası farklılıklardan etkilenmez ve bu sebeple yabancı dil olarak öğrenilen bir dilde üst söylem yapılarını kullanmak çok daha karmaşık bir hal almaktadır (Bogdanovic ve Mirovic, 2018; Hatipoğlu ve Algi, 2018). Neredeyse yarım yüzyıldır bilim insanları, metinlerini düzenlemek için uygun araçlar kullanmanın ve okuyucularıyla bir ilişki kurmanın ikinci/yabancı dil öğrenenler için zorlu bir fenomen olduğunu bildirmiştir (Hyland ve Milton, 1997; Chan ve Tan, 2010; Algi, 2012; Ho ve Li, 2018; Yuksel ve Kavanoz, 2018; Qin ve Uccelli, 2019; Uluçay, 2014). Buna rağmen, üst söylem araçları kullanımı ile ilgili çalışmalar ayrıntılı olarak incelendiğinde, oldukça az sayıda çalışmanın belirli üst söylem araçları öğretimine ve bu eğitimin katılımcıların üst söylem yapılarını kullanımına etkilerine odaklandığı görülmektedir (örn., Dastjerdi ve Shirzad, 2010; Yaghoubi ve Ardestani, 2014; Kaya ve Sofu, 2020) Bu durum yabancı dil eğitiminde spesifik bir üst söylem eğitiminin ihtiyacını ortaya koymaktadır (Algi, 2012; Uluçay, 2014; Daşkın ve Hatipoğlu, 2019; Sancak, 2019).

Sancak (2019)’a göre, “söylem organizasyonunu gösteren ve önermesel bağlantıları ve anlamı netleştiren” Hyland (2005, s.93) etkileşimli üst söylem belirleyicilerini kavramak ve kullanmak yabancı dil olarak İngilizce öğrenen Türk öğrenciler için oldukça zordur. Yine de bu alanda sadece etkileşimli üst söylem yapılarına odaklanıp, bu yapıları öğreten bir çalışma bulmak oldukça güçtür (örn., Sancak, 2019).

Veri yönetimli öğrenme tekniği İngiliz dili eğitimi alanında güncel bir yöntemdir. Bu yöntem ile öğrenciler bir derlem yardımıyla öğrendikleri dili araştırır ve dili keşfederek öğrenirler. Bu yöntem ile yapılan çalışmalar göstermektedir ki, veri

yönetimli öğrenme tekniği etkilidir (Boulton & Cobb, 2017; Lee, Warschauer, ve Lee, 2019) ve öğrenciler tarafından olumlu karşılanmaktadır (Bernardini, 2004; Crosthwaite, 2017; Geluso ve Yamaguchi, 2014; Kennedy ve Miceli, 2001; Thurstun ve Candlin, 1998).

Bu çalışma birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin İngilizce olarak yazdıkları tartışmacı paragraflarda kullandıkları etkileşimli üst söylem araçlarının (bağlayıcılar, çerçeve belirleyiciler ve kod çözümleyiciler) çeşitlerini, sıklıklarını ve işlevlerini tanımlayarak onların bu araçların kullanımını konusundaki ihtiyaçlarını belirleyip öğrenciye özel derlem tabanlı öğrenme materyalleri kullanarak veri yönetimli öğrenme metodunun bu araçların kullanımına kısa ve uzun vadeli etkilerini araştırmaktadır. Ayrıca, çalışma katılımcıların bu araçların kullanımını ve/veya kullanmadan çekinmelerinin altında yatan sebepleri ortaya çıkarmayı amaçlamaktadır. Bu amaçlar doğrultusunda, bu çalışmanın yanıtlamaya çalıştığı araştırma soruları aşağıdadır:

1. Birinci sınıf İngilizce öğretmenliği bölümü öğrencileri ön test olarak İngilizce yazdıkları düşünce/fikir paragraflarında bağlayıcı, çerçeve belirleyici ve kod çözümleyicileri ne sıklıkla ne seviyede ve doğruluk oranında kullanmaktadırlar?

2. Birinci sınıf İngilizce öğretmenliği bölümü öğrencileri ön test olarak İngilizce yazdıkları tartışmacı paragraflarında bağlayıcı, çerçeve belirleyici ve kod çözümleyiciler açısından ne tür problemlerle karşılaşmışlardır?

3.a. Veri yönetimli öğrenme tekniğiyle birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin ihtiyaçları doğrultusunda hazırlanmış eğitimlerin, İngilizce yazdıkları tartışmacı paragraflarındaki bağlayıcı, çerçeve belirleyici ve kod çözümleyici kullanımına anlık etkisi nedir?

3.b. Veri yönetimli öğrenme tekniğiyle birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin ihtiyaçları doğrultusunda hazırlanmış eğitimlerin, İngilizce yazdıkları tartışmacı paragraflarındaki bağlayıcı, çerçeve belirleyici ve kod çözümleyici kullanımına uzun süreli etkisi nedir?

Bu soruları yanıtlamak için 7 katılımcıdan beş araç ile veri toplanmıştır: (1) geçmiş anketi, (2) eğitim öncesinde, eğitim boyunca ve eğitimden sonra yazılan İngilizce tartışmacı paragraflar, (3) eğitim boyunca ve sonrasında öğrencilere verilen anketler, (4) öğrenci günlükleri ve (5) uyarılmış hatırlatma seansları ve yarı yapılandırılmış takip görüşmeleri.

Bu çalışmada, veri yönetimli öğrenme metoduyla ve öğrencilerin ihtiyaçlarına özel olarak hazırlanan eğitimin, birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin bağlayıcıları, çerçeve belirleyicileri ve kod çözümleyicileri kullanımlarına kısa ve uzun vadeli etkisini öğrenmek amacıyla araştırma deseni olarak Creswell'in (2009) eşzamanlı veri çeşitlendirme yaklaşımı benimsenmiştir. Bu bağlamda, öncelikle katılımcılardan eğitim öncesinde öğrenci özgeçmiş anketini doldurmaları istendi. Sonrasında, üç adet çıkmış TOEFL yazma sınavı konusu içinden kendilerinin oy birliği ile seçtikleri konu (Çocuklar için kırsal alanda büyümek şehirde büyümekten daha iyidir) üzerine bir tartışmacı paragraf yazmaları istendi. Anket sonuçları ve ön-test paragrafların incelenmesinin ardından birinci sınıf İngilizce öğretmenliği bölümü öğrencilerin etkileşimli üst söylem araçlarını kullanıma dair ihtiyaçları belirlendi.

Daha önce belirtildiği üzere, katılımcıların ihtiyaçları doğrultusunda verilecek olan etkileşimli üst söylem eğitimi için derlem destekli materyaller hazırlandı. Bunun için de TOEFL11 derlemi kullanıldı. TOEFL11 derlemi 11 farklı anadilli, İngilizceyi yabancı/ikinci dil olarak konuşan bireylerin TOEFL sınavı için yazdıkları düşük, orta ve yüksek seviyede puanlanmış tartışmacı denemelerden oluşmaktadır. Fakat, bu çalışma için sadece yüksek puan almış denemeleri kullanmak, öğrencilerin etkileşimli üst söylem yapılarını öğrenmesinde büyük önem taşıdığı için, sadece yüksek puan alan denemeler araştırmacı tarafından seçildi ve bunlarla TOEFL-High isimli bir alt derlem oluşturuldu. Yani, eğitimlerde kullanılan bütün materyal ve alıştırmalar TOEFL-High derlemiden hazırlandı.

Beş hafta boyunca süren veri yönetimli eğitimler Covid-19 tedbirleri kapsamında çevrim içi olarak yapıldı. Bu eğitimler dört bölümden oluştu. Öncelikle öğrencilerden öğretilmesi hedeflenen etkileşimli üst söylem araçlarından oluşan

bağlam dizinini incelemeleri istendi. Bu incelemenin ardından rehber sorular yardımıyla öğrencilerden bu araçların anlamları ve kullanımlarını keşfetmeleri istendi. Sonrasında yine veri destekli boşluk doldurma, cümle tamamlama testi gibi alıştırmalar ile öğretilmesi hedeflenen araçların kullanımı pekiştirildi. Son olarak, katılımcılardan eğitim boyunca her hafta farklı konularda olmak üzere beş ayrı tartışmacı paragraf yazmaları istendi. Bu paragraflar için seçilen konular yine çıkmış TOEFL yazma sınavı konularıydı ve öğrencilerin bilgi sahibi oldukları konular arasından seçildiler. Ayrıca, hiçbir öğrenci konusunun zorluğu yüzünden paragraf yazamadığını ifade etmedi. Öğrencilerin bu paragrafları kendilerinin yazdıklarından emin olmak için kendilerinden “Zoom” programına görüntü ve sesleri açık bir şekilde bağlanmaları istendi ve herhangi bir sözlük veyahut kaynaktan faydalanmamaları gerektiği hususunda uyarıldılar. Öğrenciler, Microsoft Word programını kullanarak paragraflarını yazdılar. Bu paragraflar hem eğitimin kısa-vadeli etkisini ölçmek için analiz edildi hem de bu paragraflara Microsoft Word programının “gözden geçir” özelliği ile geri dönüt verilerek, öğrencilerin yaptıkları hataların farkına varmaları sağlandı. Aynı zamanda, bulguları daha derinlemesine yorumlayabilmek adına eğitimler boyunca katılımcılardan her hafta öğrenmelerini yansıtan bir günlük tutmaları istendi. Bu günlük için öğrenciler 5 adet soru cevapladılar. Son olarak, bu araştırma uzun süreli olduğundan, eğitimler boyunca öğrencilerin eğitim hakkındaki algılarını görmek ve öğrenme süreçleri hakkında bilgi edinebilmek adına öğrencilerden iki adet gelişim anketi yapmaları istendi. Bu anketler sayesinde katılımcıların eğitimden sonra bile onlara zor gelen etkileşimli üst söylem araçları hakkında bilgi edinildi ve üçer paragraftan oluşan iki örnek paragraf seti öğrencileri bu yapılara daha çok maruz bırakmak adına paylaşıldı.

Eğitimlerin sonunda, öğrenciler için bir tekrar dersi düzenlendi. Bu tekrar dersinin amacı öğrencilerin gelişim anketlerinde bildirdikleri zorlu yapıların üstünden geçmek ve varsa soruları yanıtlamaktı. İki hafta sonra ise öğrenciler son-test olarak yine çevrim içi ortamda paragraflarını yazdılar ve eğitim sonu anketlerini doldurdular. Son-test paragrafları için belirlenen konu ön-testin konusuna çok benzer bir konudan seçildi (Aileler için çocuklarını kırsal alanda büyütmek şehirde büyütmekten daha iyidir). Bunun sebebi öğrencilerin farklı konular yüzünden farklı

yapılar kullanma ihtimalini yok etmekte (Swales, 2004; Hinkel, 2009; Uluçay ve Hatipoğlu, 2017). Eğitim sonu anketi öğrencilerin etkileşimli üst söylem araçlarının önemi, kendilerine özel hazırlanan eğitim ve veri yönetimli eğitim metodu konularındaki görüşlerini öğrenmek ve hala zorluk çektikleri yapıları sebepleri ile birlikte öğrenmekti.

Son olarak, son-test ve eğitim sonu anketlerinden bir hafta sonra her bir katılımcı ile uyarılmış hatırlatma seansları ve yarı yapılandırılmış takip görüşmeleri yapıldı. Burada amaç, öğrencilere ön testten son teste kadar yazdıkları 7 paragrafı göstermek ve yazılarındaki hataların farkında olup olmadıklarını, farkındalarsa hatalarını düzeltebilip düzeltemediklerini ve bu hataların sebepleri hakkında bilgi vermelerini sağlamaktır. Aynı zamanda takip görüşmeleri ile anketlerde olduğu gibi öğrencilerin gelişimleri ve eğitimin kalitesi hakkında daha derin bilgiler edinmek amaçlandı.

Bu çalışmada toplanan veriler nicel ya da nitel yöntemler ile analiz edildi. Öncelikle TOEFL-High derlemi #LancsBox 4.5 (Brezina, Timperley and McEnery, 2018) derlem aracı kullanılarak üç aşamada analiz edilmiştir:

1. Sadece TOEFL11 derleminden yüksek puan almış denemeler bulundu ve TOEFL-High derlemi oluşturuldu.
2. Araştırmacı, hangi etkileşimli üst söylem araçlarını eğitimde kullanması gerektiğini bulmak için alan yazında bu araçların tartışmacı tür yazılardaki sıklıklarını buldu ve referans listesi oluşturdu.
3. Referans listesindeki yapılar ile öğrencilerin problem yaşadıkları yapılar da karşılaştırılarak final liste #Lancsbox 4.5 (Brezina, Timperley and McEnery, 2018) üzerinden KWIC analizleri yapılarak oluşturuldu. Son olarak uygun tanıklı dizinler seçilerek ders materyali hazırlandı.

Öğrencilerin yazdıkları paragraflar ise dört aşamada ve Hyland'ın (2005) üst söylem modelindeki etkileşimsel boyut sınıflandırması ile analiz edildi (Tablo 1):

1. Öğrencilerin “.doc” formatında yazdıkları tüm tartışmacı paragraflar etkileşimli üst söylem araçlarının yazımı hariç herhangi bir düzenleme yapılmaksızın MAXQDA nitel veri analizi programına aktarıldı.
2. Paragraflarda geçen etkileşimli üst söylem yapıları belirlendi ve sınıflandırıldı.
3. Sınıflandırılan üst söylem yapıları doğru kullanım, dilbilgisi açısından ve bağlamsal açıdan yanlış kullanım, fazla ve eksik kullanım olmak üzere 4 kategoriye ayrılmıştır.
4. Öğrencilerin paragraflarında geçen etkileşimli üst söylem yapılarındaki sıklığın artması ya da azalmasında istatistiksel bir anlamlılık olup olmadığını görmek için SPSS kullanılarak Wilcoxon eşleştirilmiş diziler testleri yapılmıştır.

Tablo 1. Hyland (2005)’in Üst Söylem Modeli (Etkileşimsel Boyut)

Boyut	İşlev	Örnekler
Etkileşimsel Üst Söylem	Okuru metin içerisinde yönlendirir	
Bağlayıcılar	Cümleler arasındaki ilişkiyi belirler	Ayrıca, fakat, bu yüzden
Çerçeve Belirleyicileri	Söylem eylemlerine, dizinlerine ve aşamalarını belirtir	Öncelikle, son olarak, amacım
Kod Çözümleyiciler	Argümanları daha açık hale getirir	Yani, örneğin, açıklamak gerekirse
Metin içi Belirleyiciler	Metnin başka bölümlerinde bulunan ifadelerle gönderimde bulunur	Bakınız, önceden de belirtildiği üzere
Tanıtlayıcılar	Diğer metinlerdeki kaynaklara gönderim yapar	X’e göre , Z... şeklinde açıklar

Gelişim anketleri, takip görüşmeleri öğrenci günlükleri ve eğitim sonu anketleri de MAXQDA aracılığıyla kodlanarak analiz edilmiştir. Beşli Likert ölçeği içeren sorular ise Microsoft Excel’ aktarılmış ve formüller ile analiz edilmiştir.

Toplanan verilerinin analizinden elde edilen sonuçlar şu şekildedir:

1. Birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin yazdıkları yedi tartışmacı paragrafının tamamındaki etkileşimli üst söylem araçlarının sayısının inip çıktığı gözlemlendi. (Ön Test: %5,31, TM-AD-P1: %5,4, TM-COM-P1: %5,8, TM-

CON-P1: %6, FM-P1: %6,3, CDG-P1: %5,9 ve Son Test: %4,94); ancak istatistiksel olarak herhangi bir anlamlı bir artış veya azalma bulunmadı.

2. Eğitim öncesi tartışmacı paragraflarında, birinci sınıf İngilizce öğretmenliği bölümü öğrencileri en sık bağlayıcıları (%79) ve ardından sırasıyla kod çözümleyicilerini (%11,11) ve çerçeve belirleyicilerini (%9,87) kullandılar. Ayrıca bağlayıcılar içerisinde en çok sebep-sonuç ilişkisi gösteren bağlayıcıları (%38,27), ek yapan bağlayıcıları (%22,22) ve karşılaştırmalı bağlayıcıları (%18,51) kullandılar.

3. Eğitim öncesi tartışmacı paragraflarını etkileşimli üst söylem araçları kullanımı açısından analiz ettikten sonra, birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin aşağıdaki alanlarda yardıma ihtiyaçları olduğu keşfedildi:

- a. Bağlayıcılar açısından birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin bu araçları sıklıkla kullanmada sorun yaşamadıkları tespit edildi. Ancak, TOEFL-High derlemi ile karşılaştırıldığında en sık kullanılan formlar '*and*' (%21,87), '*but*' (%10,93) ve '*because*' (%9,36) olduğundan daha çeşitli bağlayıcılar kullanmaları gerektiğine kanaat getirildi. Öğrencilere bu durumun nedenleri sorulduğunda, çoğunlukla başka yapılarla aşına olmadıklarını veya bunları kullanma konusunda yeterli deneyime sahip olmadıklarını belirttiler. Bunun yanı sıra, öğrencilerin eksik kullanım, dilbilgisi ve bağlam açısından yanlış kullanım ve aşırı kullanım sorunlarının üstesinden gelmek için de yardıma ihtiyaçları vardı.
- b. Katılımcıların yarısından fazlasının çerçeve belirleyicilerini kullanılmadığı keşfedildi. Bu nedenle, birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin farkındalık kazanmaları ve paragraflarında bu belirteçlerin sıklığını artırmaları için bu araçların işlevleri ve önemi açısından yetiştirilmeleri gerektiğine karar verildi. Ayrıca, yine bu belirteçlerin de en sık kullanılan biçimlerinin tanıtılması ve doğru kullanımlarının edinilmesinin gerekliliği fark edildi.
- c. İki katılımcının hiç kod çözümleyici kullanmadığı görüldü. Bu sebeple, tartışmacı paragraflarda bunların önemi konusunda farkındalık yaratmak ve birinci sınıf İngilizce öğretmenliği bölümü öğrencilerini bu yapıları daha fazla kullanmaya teşvik etmek gerekti. Ayrıca form çeşitliliğinin artırılması

ve bu yapıların doğru kullanımının artırılmasına yönelik eğitimler de önemliydi.

4. Katılımcıların etkileşimli üst söylem araçları açısından karşılaştıkları sorunlar belirlenerek, derlem destekli materyaller aracılığıyla ihtiyaçlarına özel olarak tasarlanmış bir eğitim modeli oluşturuldu. Veri yönetimli bu eğitim 5 hafta sürdü ve kısa vadeli etkisi, katılımcıların eğitim sırasında yazdıkları tartışmacı paragraflar aracılığıyla analiz edildi.

- a. İlk hafta ek yapan bağlayıcılara odaklandı. Birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin aldıkları eğitim sonrasında bu yapıları daha sık kullanmaya başladıkları tespit edildi. Öğrenciler aynı zamanda bu kategoride daha çeşitli yapılar kullandılar. Ayrıca, bu belirteçleri doğru kullanım açısından da daha uygun kullandıkları görüldü.
- b. İkinci hafta karşılaştırmalı bağlayıcılar hedeflendi. İlk haftaya benzer şekilde, katılımcılar bu kategorideki yapıları da daha sık ve daha çeşitli olarak kullandılar. Nitekim, yakın zamanda edinilen bazı yapıları yanlış kullanma eğiliminde oldukları gözlemlendi.
- c. Üçüncü hafta, sebep-sonuç belirten bağlayıcılar üzerine çalışıldı. İlk iki haftadan farklı olarak, birinci sınıf İngilizce öğretmenliği bölümü öğrencileri, eğitim öncesi tartışmacı paragraflarına kıyasla bu belirteçleri daha az kullandılar. Ancak bu azalma istatistiksel olarak anlamlı değildi. Buna rağmen, eğitimden sonra daha çeşitli yapılar kullandıkları görüldü. Ayrıca, bu yapıları daha doğru kullandıkları da gözlemlendi.
- d. İlk gelişim anketi, eğitim ortasında eğitimin etkili olup olmadığını görmek sorunlu yapılar hakkında zamanında harekete geçmek için yapıldı. Birinci sınıf İngilizce öğretmenliği bölümü öğrencileri eğitimlerin metodolojisi ve içeriğinden memnun olduklarını belirttiler. Bununla birlikte, bazı bağlayıcıların hala sorunlu olduğu tespit edildi. Bu sebeple, TOEFL-High derleminden bu sorunlu yapıları içeren üç örnek paragraf seti, telafi eğitimi için katılımcılara sunuldu.
- e. Eğitimlerin dördüncü haftasında çerçeve belirleyiciler hedeflendi. Eğitimlerden hemen sonra öğrencilerin bu yapıları çok daha sık ve çok daha fazla çeşitte kullandıkları tespit edildi. Ayrıca, bir adet eksik kullanım sorunu dışında tüm çerçeve belirleyiciler doğru bir şekilde kullanıldı.

- f. Eğitimin son haftasında kod çözümleyicilere odaklanıldı. Sonuçlar öğrencilerin eğitimden sonra bu yapıları daha sık kullandıklarını ortaya koydu. Ayrıca, bu yapıların doğru kullanımındaki gelişmelerin yanı sıra formlarında da daha fazla çeşitlilik olduğu görüldü.
- g. İkinci ilerleme anketi, yine sorunlu yapıların olup olmadığını bulmak ve katılımcıların eğitime ve etkileşimli üst söylem araçlarına yönelik tutumunu belirlemek için yapıldı. Sonuçlar, öğrencilerin bu yapılar konusunda farkındalık oluşturduklarını ve genel olarak eğitimlerden memnun kaldıklarını gösterdi. Bununla birlikte, bazı yapılar hala sorunlu olduğundan, bir başka üç örnek paragraf seti öğrencilerin erişimine sunuldu. Buna ek olarak katılımcılar, sorunlu yapıların açıklığa kavuşturulduğu bir revizyon oturumuna davet edildi.

5. Öğrenciye özel derlem destekli etkileşimli üst söylem araçları eğitimlerinin uzun vadeli etkisini test etmek için, eğitim bittikten üç hafta sonra katılımcılar eğitim sonrası tartışmacı paragraflarını yazdılar. Analiz şu bulguları ortaya koydu:

- a. Birinci sınıf İngilizce öğretmenliği bölümü öğrencilerinin eğitim sonrası tartışmacı paragraflarında etkileşimli üst söylem araçlarını eğitim öncesi tartışmacı paragraflarından (%5,31) daha az kullandılar (%4,94). Ancak bu azalma istatistiksel olarak anlamsızdı.
- b. Öğrenciler, eğitim sonrası tartışmacı paragraflarında yine en sık olarak bağlayıcıları kullandılar (%65,81). Ancak, eğitim öncesi tartışmacı paragraflarından farklı olarak, çerçeve belirleyicilerini (%21,51) kod çözümleyicilerden (%12,68) daha sık kullandılar. Bu noktada eğitim öncesi tartışmacı paragraflarındaki bağlayıcıların yüksek sıklığının daha fazla çerçeve belirleyici ve kod çözümleyici kullanımı sayesinde azaldığını belirlemek önemlidir. Bu bulgunun ışığında eğitimlerin bu yapıların kullanımı konusunda katılımcıları bilinçlendirme açısından işe yaradığı söylenebilir. Ayrıca, ön-testten farklı olarak öğrenciler bağlayıcılar kategorisinde çoğunlukla ek yapan bağlayıcılar (%26,58), ardından sebep sonuç ilişkisi gösteren bağlayıcılar (%20,25) ve karşılaştırmalı bağlayıcılar (%18,98) kullandılar. Bu durum, katılımcıların yazma stratejilerini de değiştirdiklerini gösterdi. Yani,

- eđitimlerden sonra argümanlarının nedenlerini ve sonuçlarını açıklamak yerine, tezlerini desteklemek için daha fazla argüman eklemeyi tercih ettiler. Ayrıca karşılaştırmalı bağlayıcıların en az tercih edilen bağlayıcılar kategorisi olması, katılımcıların türe özgü üst söylem belirteçlerinin kullanımına ilişkin farkındalıklarını gösterdi (Adel, 2006).
- c. Çeşitlilik açısından, birinci sınıf İngilizce öğretmenliği bölümü öğrencileri, eğitim sonrası yazdıkları tartışmacı paragraflarında ön testlerine göre daha çeşitli bağlayıcı, çerçeve belirleyicileri ve kod çözümleyicileri kullandıklarından, eğitimlerin uzun vadede etkili olduğu tespit edildi. Ancak eğitim süresinde yazılan paragraflar da dikkate alındığında eğitimin daha çeşitli formlarda etkileşimli üst söylem yapılarını kullanma konusunda kısa vadede daha etkili olduğu söylenebilir.
- d. Doğru kullanım açısından, birinci sınıf İngilizce öğretmenliği bölümü öğrencileri eğitim sonrası tartışmacı paragraflarında eğitim öncesi paragraflarına göre daha az dilbilgisi ve içerik hatası yaptıkları için eğitimlerin uzun vadede başarılı olduğu görülmüştür. Bununla birlikte, aşırı kullanım konusu aynı kalırken, eğitim sonrası paragraflarında etkileşimli üst söylem yapılarını daha fazla ekiskullanma eğiliminde oldukları keşfedildi. Fakat, uyarılmış hatırlama seansları ve sonrasında yapılan görüşmeler sonucunda her iki sorunun da aslında katılımcıların bilgi veya farkındalık eksikliğinden kaynaklanmadığı anlaşıldı. Bu durumun asıl sebebi öğrencilerin paragraflarını teslim etmeden önce gözden geçirmemeleriydi.
- e. Eğitim sonrası yapılan anket, eğitimlerin etkinliğini ve katılımcıların eğitime ve etkileşimli üst söylem yapılarına yönelik algıları üzerine derinlemesine bilgi elde etmek için yapıldı. Bulgular, eğitimlerde yer alan her bir unsurun amacına uygun ve etkili olduğunu gösterdi. Ayrıca birinci sınıf İngilizce öğretmenliği öğrencileri bu eğitimin her adımının kendilerine uygun ve faydalı olduğunu bildirdi. Ayrıca geri bildirim alma, derlem kullanma ve eğitimin kendi ihtiyaçlarına özel olmasının bu eğitimin en önemli üç avantajı olduğunu belirttiler. Son olarak, örnek paragraflar ve revizyon oturumu sayesinde ilerleme anketlerinde

kendileri için sorunlu buldukları bazı belirteçlere artık aşına oldukları da görülmüştür.

Araştırmanın bulguları ışığında birkaç çıkarım ve öneri yapılabilir. İlk olarak, bu araştırma etkileşimli üst söylem yapıları eğitiminin bu yapıların kullanımı konusunda farkındalık yaratma, daha çeşitli yapılar kullanma ve bu yapıları daha doğru bir şekilde kullanma konularında etkili olduğunu ortaya koymuştur. Bu sebeple, bu tarz bir eğitimin müfredata girmesi önemlidir. Fakat, genel bir eğitimden ziyade eğitimin öğrencilerin amaç ve ihtiyaçları doğrultusunda şekillendirilmesi önem arz etmektedir. Ayrıca, öğrencileri özgün örneklere maruz bırakmak ve bu yapıları yazı içinde görüp nasıl kullanıldıkları keşfedebilmeleri adına bu eğitimin derlem destekli olması tavsiye edilebilir. Bu bağlamda, kullanılan derlemin uygunluğu çok önemli olduğundan hem hizmet öncesi hem de hizmet içi eğitimlerle, İngilizce öğretmenleri derlem kullanımı konusunda bilgilendirilmelilerdir.

İkinci olarak, bu çalışmanın katılımcıları çeşitli etkileşimli üst söylem yapılarını kullanma konusunda problem yaşamaktalardı. Bu durum öğrencilerin yazdıkları yazıların tekdüze olmasına sebep olabildiği için, öğretmenler bu konu üzerinde eğitim yaparken öğrencilerinin çeşitli yapılarla maruz kaldıklarından ve öğrencilerine için yeterli pratik yapma fırsatını verdiklerinden emin olmalıdırlar. Üçüncü olarak bu çalışma öğrencilerin yazı yazmanın bir süreç olduğunu bilmeme ve yazılarının üstünden geçmeden teslim etme durumunu ortaya koydu. Dolayısıyla yazdıkları tartışmacı paragraflarda aslında bildikleri konularda hata yaptılar. Bu bağlamda, revize etme ve düzeltme aşamaları konularında öğrencilere farkındalık eğitimleri verilmelidir. Aynı zamanda geri dönüt almak da öğrencilerin bu yapıları dilbilgisi ve bağlam açısından daha doğru kullanmaya ittiği için, öğretmenlerin öğrencilerine etkili bir şekilde geri dönüt vermeleri oldukça önemlidir. Son olarak, bu çalışmada uygulanan veri çeşitlemesi yöntemi sayesinde öğrencilerin etkileşimli üst söylem yapılarını kullanımlarının veya kullanmaktan çekinmelerinin altında yatan sebepleri bulma ve hataları üzerine konuşma fırsatı yakalanmıştır. Bir başka deyişle

nicel veri nitel veriyi çok daha anlamlı kılmıştır. Bu sebeple, ilerde bu alanda yapılacak çalışmalar için de bu yöntem tavsiye edilebilir.

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TEZİN ADI / TITLE OF THE THESIS (İngilizce / English): DATA DRIVEN LEARNING AND THE USE OF INTERACTIVE METADISCOURSE MARKERS (TRANSITIONS, FRAME MARKERS AND CODE-GLOSSES) IN ARGUMENTATIVE PARAGRAPHS WRITTEN BY FRESHMEN PRE-SERVICE ENGLISH LANGUAGE TEACHERS

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