A Scrutiny of Bilingualism Impact: Outcomes of a Discourse Marker Intervention for Monolinguals and Bilinguals in Iran[1]

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Abstract

Delving into the linguistic performance of EFL learners with varying linguistic backgrounds and potentials appears to be of huge significance, particularly in EFL classrooms. The knowledge of the potential variations between monolingual and bilingual EFL learners might help teachers better meet the needs of these learners, for instance through differentiated instruction for them. Accordingly, through a ten-session intervention on discourse markers (DMs), and providing sixty upper-intermediate Iranian monolingual and bilingual EFL learners with equal DM knowledge, the present study aimed to discover if bilingualism could lead to variations in DM usage, accuracy and recall between the two groups. Initially, to examine DM usage, the study explored the frequency of DM types and tokens, and to study DM usage accuracy, it examined the hurdles to DM employment (i.e., overuse, underuse, and misuse) in the participants' 180 paragraphs. To examine DM recall, we aimed at discovering whether the learners significantly varied in their performance on a DM multiple-choice test after attending the same ten-session intervention. With respect to DM usage, we observed minimal variation, with the monolinguals and bilinguals differing only in their use of exemplifier and conclusive markers, while indicating a similar pattern and range of DM tokens. Similarly, concerning DM usage accuracy, the groups mainly manifested a similar pattern but varied only due to the bilinguals' extreme overuse of DMs. However, the results concerning DM recall disclosed bilinguals as outperforming monolinguals significantly. The findings offer suggestions for the importance of understanding monolingual and bilingual EFL learners' linguistic performance.

Resumen

Profundizar en el desempeño lingüístico de los estudiantes de inglés como lengua extranjera con diferentes antecedentes y potenciales lingüísticos parece ser de gran importancia, particularmente en las aulas de inglés. El conocimiento de las posibles variaciones entre estudiantes monolingües y bilingües de inglés como lengua extranjera podría ayudar a los maestros a satisfacer mejor las necesidades de estos estudiantes, por ejemplo, mediante una instrucción diferenciada para ellos. En consecuencia, a través de una intervención de diez sesiones sobre marcadores del discurso (DM), y proporcionando a sesenta estudiantes monolingües y bilingües de inglés como lengua extranjera (EFL) de nivel intermedio alto de con el mismo conocimiento de DM, el presente estudio tuvo como objetivo descubrir si el bilingüismo podría conducir a variaciones en el uso de DM, y su precisión y memorización entre los dos grupos. Inicialmente, para examinar el uso de DM, el estudio exploró la frecuencia de tipos y tokens de DM, y para estudiar la precisión del uso de DM, examinó los obstáculos para el empleo de DM (es decir, uso excesivo, infrautilización y uso indebido) en los 180 párrafos de los participantes. Para examinar el la memorización de DM, nuestro objetivo fue descubrir si los estudiantes variaban significativamente en su desempeño en una prueba de opción múltiple de DM después de asistir a la misma intervención de diez sesiones. Con respecto al uso de DM, observamos una variación mínima, con los monolingües y bilingües difiriendo solo en el uso de marcadores ejemplificadores y concluyentes, pero con un patrón y rango similar de tokens DM. De igual similar, con respecto a la precisión en el uso de DM, los grupos manifestaron principalmente un patrón similar, pero variaron solo debido al uso excesivo extremo de DM por parte de los bilingües. Sin embargo, los resultados relacionados con la memorización de DM revelaron que los bilingües superaron significativamente a los monolingües. Los hallazgos ofrecen sugerencias sobre la importancia de comprender el desempeño lingüístico de los estudiantes monolingües y bilingües de inglés como lengua extranjera.

Introduction

Despite a host of studies, certain gaps appear in the literature on both discourse markers (DMs), and monolinguals and bilinguals' linguistic performance in general. In spite of numerous research attempts (e.g., Lahuerta Martínez, 2004; Rahimi, 2011) at DMs in second or foreign language learning contexts, the research on DM usage, accuracy or recall, specifically in written paragraphs by monolinguals and bilinguals appears to be rare. Likewise, there have been a plethora of studies exploring monolinguals and bilinguals' performance (e.g., Farhadian, et al., 2010; Grady et al., 2015; Keshavarz & Astaneh, 2004). However, to the researchers' best knowledge, except for one study in a non-Iranian setting (Lee, 2011), no study has sought to probe into monolinguals and bilinguals' use of DMs to bring about cohesion and coherence in their written products (particularly after receiving the same DM intervention). Nor has any study investigated how monolinguals or bilinguals might recall DMs differently under the same conditions. Further, the current research explores adult bilinguals with no literacy skills and formal training in their first language (L1) in a

formal context unlike Lee's (2011) research which focused on 6- to 11-year-old bilingual children in an informal and talk-in-interaction setting. That is, the bilinguals in this study did not receive any training in reading or writing in their mother tongue.

In fact, since monolingual and bilingual learners have different L1 systems, their English DM usage, accuracy and recall may require an in-depth scrutiny. In this study, the authors hold two assumptions. First, it is assumed that since monolingual and bilingual learners possess varying linguistic backgrounds, it might impact their DM usage and accuracy in written paragraph tasks as well as their DM recall (as tested in a multiple-choice test), and thus result in monolingual and bilingual English as a Foreign Language (EFL) learners' linguistic performance variation. Second, in case of monolingual and bilingual learners' possible performance variation in terms of DM usage patterns, accuracy, and recall, the assumption is that it can be rooted mainly in bilinguals' reported superiority (e.g., Grady, et al., 2015; Maluch & Kempert, 2017); Poarch & Bialystok, 2015)

In this study, the researchers aimed to explore DM usage, accuracy and recall among Iranian monolingual and bilingual learners following a ten-session intervention where they instructed all the participants how to write three types of paragraphs and how to use DMs, based on Fraser's (1999) DM taxonomy. The researchers formulated the following research questions for the purpose of the current research:

1. How frequently do students with different linguistic backgrounds (monolinguals and bilinguals) employ DM types and tokens as a tool to create cohesion and coherence in their paragraphs?
2. How do students with different linguistic backgrounds (monolinguals and bilinguals) tackle the accuracy problems of overuse, underuse and misuse in their paragraphs? Are bilinguals more accurate in DM usage than monolinguals?
3. Is there a significant variation in DM recall by the monolingual and bilingual participants after receiving the same intervention on DMs?

Initially, to examine participants' DM usage, the researchers scrutinized the frequency of DM types and tokens in their paragraphs. Moreover, they also examined accuracy, problematic features (overuse, underuse and misuse) in DM usage in paragraphs produced by Iranian monolingual and bilingual EFL students. Additionally, to examine DM recall, the researchers attempted to ascertain whether the two groups varied significantly in their performance on a DM multiple-choice test after receiving the same intervention. Thus, the first and the second research questions address participants' DM usage and accuracy and the third one probes their DM recall.

Equally important in this research are the methodological issues concerning DMs as well as monoligualism and bilingualism. Contrary to the huge DM literature, this research used an intervention to study monolingual and bilingual EFL learners' DM usage, accuracy and recall. Through intervention providing background knowledge for both monolinguals and bilinguals on a certain topic to the same degree and putting them on a level playing field, a comparison of the two groups' performance can be easier and more reliable. Accordingly, the current study used a DM program, through which equal conditions (or DM knowledge) were provided to the monolingual and bilingual EFL learners, hence the possibility for more reliable comparisons of their DM usage, accuracy and recall.

The article comprises four sections, i.e. a review on different issues concerning DMs and monolingual/bilingual variations, the presentation of the methodology adopted for the study, the presentation of the outcomes of the research on Iranian monolingual and bilingual EFL learners' DM usage, accuracy and recall, and the discussion of the findings.

Literature Review

In this section, the researchers generally dealt with two issues, DMs and monolingual and bilingual variations. First, they presented different issues on DMs such as DM designations and definitions, DM token/type definition, and DM role in written discourse and its general importance. Next, in the theoretical framework, the researchers elaborated on the major DM taxonomies, and some previous studies on DMs. Finally, the researchers discussed the monolingual and bilingual variations, while elaborating on some of the more pertinent previous studies.

<u>What are DMs?</u>

Over years, many researchers (e.g., Gao, 2016; Lei, 2012; Liu, 2008) have pointed out to a wide array of terms utilized in the literature referring to cohesive devices, with the term 'discourse markers' being more

common in the literature (Liao, 2009). Different scholars have used various definitions to describe DMs. For instance, Fraser (1998) called DMs "a growth market in linguistics" (p. 301). More specifically, the author defined a DM as a lexical expression which indicates the relation of either contrast or elaboration between the interpretation of two segments (segment 2 and segment 1) of a sentence. Another definition here is that of Redeker (1991), calling DMs 'discourse operators' and defining them as words or phrases, conjunctions, adverbials, comment clauses, and interjections which, when uttered, primarily help the listener to notice the upcoming utterance with the immediate discourse context. Schiffrin (1987) also provided a definition, at a more theoretical level. To this author, DMs are members of a functional class of verbal and nonverbal devices which provide ongoing talk with contextual coordinates. She further went on to say that DMs are "sequentially dependent elements which bracket units of talk" (p. 31). Notwithstanding the fact that many scholars are in a quandary over how to define them, in all the definitions given by different authors, a salient feature of DMs is observable, i.e. their role in giving coherence to a piece of text.

Since this study focuses on DM types and tokens, a definition of these terms appears necessary. DM types in this study refer to the six subcategories of DMs: elaborative, contrastive, inferential, conclusive, reason and exemplification markers (Lahuerta Martínez, 2004). Moreover, DM tokens refer to each of the variants of every one of the DM types (Prommas & Sinwongsuwat, 2011). For instance, the DM "however" is a token of contrastive markers while "therefore" is a token of inferential markers. DMs, along with their types and tokens, have been investigated in a variety of languages as well as genres in the last three decades or so (e.g., Buysse, 2012; Djigunović & Vikov, 2011; Gao, 2016; Lee, 2011; Zhang, 2000).

Written Discourse and DMs

Unlike spoken discourse, which is transitory, written discourse is believed to be permanent (Brown & Yule, 1983). As Lenk (1998) pointed out, written discourse enjoys the benefit of time. That is, unlike speakers, writers have sufficient time to address the proper indexing of the next idea and its relevance to the general scheme of writing. For this reason, written products can enjoy an almost smooth topic development as well as clear discourse organization. One group of valuable devices believed to bring about robust discourse structure in texts and written discourse is DMs, the use of which can increase written product quality (Lahuerta Martínez, 2004).

When the ideas of text or written product coherence and cohesion are discussed, generally DMs come into mind. Concerning their importance, Taboada (2006) argued that DMs are essential to coherence since they help the receiver of the text/written product with the recognition of coherence relations that bind different parts of the discourse, which are to some extent responsible for the perceived coherence of a text/written product. In fact, the benefits of DMs sometimes go even beyond texts or written products. DMs are generally believed to be significant tools used to structure and organize thoughts (Gánem-Gutiérrez & Roehr, 2011). They can be significant from a relevance perspective, as well. As Blakemore (1987) argued, DMs can also act as guides for a speaker by directing the audience's interpretation process and diminishing the effort needed for processing to a substantial extent. DM application thus assists the hearer in gaining an awareness of more relevance of an utterance in a particular context.

Major DM Models

In general, researchers have drawn upon two major models for the study of DMs, namely, Schiffrin's (1987) and Fraser's (1999). The two models vary according to their focus. Whereas Fraser's (1999) model for studying DMs is a grammatical-pragmatic one, Schiffrin's (1987) is a sociolinguistic model. Each model has its own focus. For instance, whereas Fraser's (1999) model addresses the relationships on the message level of discourse, Schifrin's (1987) model takes into account the different aspects of the communicative situation. On the other hand, Fraser's model (1999) enjoys a major advantage in terms of DM identification unlike Schifrin's (1987) model, which suffers from ambiguous definition and characterization of DMs, and thus brings about major problems in its application. In fact, in the present study, the ease of application and DM identification associated with Fraser's (1999) model was one of the main reasons why the researchers chose this model. In general, Fraser's (1999) model classifies DMs into two groups; the initial group of DMs relates the plain interpretation conveyed by S2 (which is the second discourse segment) with another aspect linked with the segment S l (which is the first discourse segment); and the second group relate S2 topic to that of S1. These relations between segments are illustrated by Fraser (1999) in four canonical forms given in Figure 1. The researchers explain DM categories belonging to the model in more details in the methodology section and in the explanation of the DM intervention.

1. <S 1. DM+S2>,

2. <S1. DM+S2>, or <S1, DM+S2>,

3. <S1. DM+S2>,

4. <S 1, DM+S2> and <DM+S2, SI>.

Figure 1. Four canonical forms introduced by Fraser (1999)

<u>Previous Studies on DMs</u>

Researchers have investigated DMs, along with their types and tokens, in a wealth of studies in a variety of settings and from various facets. Some of these studies have examined DM usage across varying genres and disciplines (e.g., Gao, 2016), as well as varying proficiency levels (Yang & Sun, 2012). Some have explored their usage between natives and non-natives (Gao, 2016), and students and professional writers (Lei, 2012). Others have probed into their use in spoken discourse (Buysse, 2012), expository or argumentative writing (Lahuerta Martínez, 2004; Rahimi, 2011; Yang & Sun, 2012; Zhang, 2000), and academic presentations (Zareva, 2011).

Among the more pertinent studies exploring DMs in written discourse in an Iranian context, for instance, Rahimi (2011) investigated DM type and frequency in the argumentative and expository writings of Iranian EFL learners and the variations observed in DM usage in the two essay genres. Additionally, Rahimi (2011) examined the impact of DM usage on participants' writing quality. The researcher reported a hierarchy of DM type and token usage in both essay types, with elaborative markers (mainly, with the DM token 'and') being the most frequent connectors used in both essay types. Based on the findings, the observed variations included the significantly higher mean of DM usage in argumentative essays than in expository essays. Furthermore, contrastive and conclusive marker types appeared more frequently in argumentative than in expository essays. The results, nonetheless, did not lend support to DM usage as a significant predictor of writing quality. Likewise, among the more pertinent studies in non-Iranian contexts, drawing on Fraser's (1999) DM taxonomy, Lahuerta Martínez (2004) investigated DM usage in Spanish undergraduates' expository compositions. The researcher reported a hierarchical usage of various DM types, among which elaborative markers were the most frequent, followed by contrastive markers. Even more importantly, Lahuerta Martínez (2004) observed a significant link between composition scores and DM frequency, indicating that higher DM usage meant higher composition score.

Generally, various DM studies have reported an almost similar pattern of DM type and token frequency indicating certain DM types or tokens to be more frequent than others. Concerning DM types, one of the most frequent has been elaborative markers. Many researchers in different contexts (e.g., Djigunović & Vikov, 2011; Dumlao & Wilang, 2019; Lahuerta Martínez, 2004; Rahimi, 2011; Zhang, 2000) have reported these DM types to be of the highest frequency compared to other DM types. Other frequent DM types in written products have been contrastive (Rahimi, 2011), inferential (Dumlao & Wilang, 2019) and reason markers (Djigunović & Vikov, 2011; Rahimi, 2011). Among DM tokens, similarly, certain tokens appear to be more common in written production than others. For instance, in their studies, Djigunović and Vikov (2011) and Lahuerta Martínez (2004) found tokens like 'and' as well as 'also' to be more frequent than others. Among other most frequent DM tokens, 'but' (Djigunović & Vikov, 2011; Dumlao & Wilang, 2019; Rahimi, 2011), 'because' (Djigunović & Vikov, 2011) and 'so' (Djigunović & Vikov, 2011; Rahimi, 2011) can be cited.

In the literature on DMs, similarly, several studies addressing accuracy in DM usage can be observed. A host of researchers have reported ESL and EFL students to be underusers, overusers and misusers of DMs (Crewe, 1990; Gao, 2016; Lahuerta Martínez, 2004; Lei, 2012; Zhang, 2000). For instance, exploring DM usage in Chinese undergraduates' expository compositions, Zhang (2000) found that the Chinese undergraduates were overusers and misusers of DMs in their compositions. In another comparative study of English and Chinese native speakers' DM usage in written discourse, Gao (2016) examined research articles from four different fields. The researcher reported that Chinese native speakers almost underused additive and adversative markers in their academic writings. Despite a host of such studies dealing with different issues concerning DMs, to the best of the researchers' knowledge, only one study in a non-Iranian context (Lee, 2011) has investigated DM development in monolingual and bilingual learners. However, the

present study has a broader and different focus and takes into account DM usage, accuracy and recall by monolingual and bilingual EFL learners following a DM intervention.

<u>Monolingual and Bilingual Variations</u>

Bilinguals' linguistic as well as cognitive abilities have long been a focus of research, with conflicting findings reported, particularly in western context. Nevertheless, many, if not all, existing research studies have disclosed these abilities, as indicators of bilinguals' advantages and superiority, especially relative to monolinguals (Grady, et al., 2015; Maluch & Kempert, 2017; Poarch & Bialystok, 2015). For instance, in their study, Maluch and Kempert (2017)investigated the impact of bilingualism on learning English as a third language (L3), and sought to see if bilingual language minority students could receive any advantages in L3 learning due to some facets of bilingualism. Based on their findings, bilinguals with formal training in their minority language could enjoy higher L3 listening as well as reading outcomes in comparison to their monolingual counterparts.

Researchers have primarily ascribed the bilingual advantages to bilingual learners' higher metalinguistic awareness (e.g., Huang, 2016) and cognitive abilities (e.g., Marian, Shook, & Schroeder, 2013). A particular scene for bilinguals to manifest these advantages has been foreign language and specifically L3 learning (e.g., Grenfell & Harris, 2015; Maluch & Kempert, 2017). On the grounds of their rich language learning experiences and the subsequent metalinguistic as well as cognitive blessings, bilingual learners are well-equipped with a richer set of linguistic tools (Bialystok et al., 2010) and strategies (Cenoz, 2003) in learning another language in contrast to monolinguals.

It might, however, be noteworthy that some studies (e.g., Cummins, 1991; Swain, et al., 1990) have documented the bilingual advantages for particular types of bilinguals, those with literacy skills and formal training in two languages, often leaving the other bilingual groups on a level playing field with monolinguals. For instance, in their study, Maluch and Kempert (2017)found that bilinguals with formal training in their minority language outperformed those bilinguals with no training in their minority language in terms of higher L3 listening as well as reading outcomes.

At the other end of the continuum, however, there have been studies yielding contradictory findings, for example, in language and even literacy skills development (Au-Yeung et al., 2015), reading comprehension (van Gelderen et al., 2003), and learning strategies (Shabani & Najafi-Sarem, 2009), and thus rejecting bilingual learners' language-related superiority. A pertinent study rejecting monolingual and bilingual learners' significant variations in language learning is that of Shabani and Najafi-Sarem (2009). The researchers examined the linkage between Iranian monolingual and bilingual students' learning strategies; however, they observed no significant variation between the two groups in their strategy implementation. A glance at the literature indicates that the studies on monolingual and bilingual comparisons, particularly the major ones, have been conducted in western context particularly with bilinguals who have formal training in their L1, highlighting the need to shed more light on non-western settings and particularly bilinguals with no literacy in their L1, which is the case with the present study.

Research Methodology

<u>Participants and Setting</u>

The participants of the study were 30 Persian monolingual and thirty adult Turkish-Persian bilingual EFL upper-intermediate learners, as determined by Oxford Placement Test, (OPT) ranging in age from 20 to 25. The researchers selected monolingual students from a language institute in Tehran, the capital largely with Persian monolingual population, while the Turkish-Persian bilingual students were selected from another language institute in Tabriz, another large city with mainly Turkish-Persian bilingual population. The Persian monolingual learners' L1 was Farsi (for which they had received formal training and literacy skills at school since the age of seven), and they were learning English as a foreign language. On the other hand, the bilingual learners' L1 was Turkish, for which they had not received any formal training or literacy skills at school, unlike Persian monolinguals. Farsi, the national language in Iran, was their L2 for which they had received formal training and literacy skills at school since the age of seven. Therefore, English was the L3 (the foreign language) that they were learning. The researchers selected sixty monolingual and bilingual participants purposively and on the basis of a background questionnaire and the OPT. The procedure for the selection of the final participants is explained in the data collection procedure in more detail.

Materials and Instruments

Background Questionnaire

The researchers employed a 16-item survey questionnaire originally designed by Safont-Jorda (2003) and later adopted and employed by Dibaj (2011) in the Iranian EFL context to ascertain the participants' related background information prior to the intervention.

DMs Taught in Intervention

To teach DMs to the monolinguals and bilinguals, the researchers capitalized on an adapted version of Fraser's (1999) taxonomy of DMs, the most frequently used and the most comprehensive one for the classification of written discourse (Rahimi, 2011). The researchers' rationale for drawing on Fraser's (1999) taxonomy is that they are in accord with the way Fraser (1999) characterizes DMs and illustrates their role in discourse. That is, according to Fraser (1999) DMs are a pragmatic class, lexical terms which are derived mostly from the syntactic classes of conjunctions, adverbials, as well as prepositional expressions. Moreover, as stated earlier in the literature review, Fraser's (1999) taxonomy allows for the easy and clear identification of DMs, and thus unlike Schiffrin's (1987), is easy to implement in research studies. Yet, our preliminary analysis of the DMs in Fraser's (1999) taxonomy convinced us that some DMs were missing, and the taxonomy could be adapted for the purpose of the present study. Thus, to have a more comprehensive set of DM types, and following what Lahuerta Martínez (2004) did in this regard, the researchers added to Fraser's (1999) classification DMs which indicate a conclusion between the content of segment 2 and segment 1 (*in short*, *in conclusion*, etc.), and DMs that demonstrate that the content of segment 2 could be viewed as an example of a previous generalization (*for example*, etc.). Furthermore, the researchers agree with Lahuerta Martínez (2004) that topic relating markers serve a quite personal function and primarily qualify for oral discourse, and for this reason, they decided to exclude them. Thus, the six types of DMs selected for the study are as follows:

1. Conclusive: In sum, in conclusion, to sum up, etc.
2. Reason: Because, since, due to, etc.
3. Elaborative: And, also, moreover, in addition, etc.
4. Contrastive: But, however, although, etc.
5. Inferential: Thus, hence, so, therefore, etc.
6. Exemplifiers: For example, such as, for instance, etc.

Oxford Placement Test

To ensure the participants' homogeneity in terms of general English knowledge and in order to make a more reliable comparison, the researchers administered the 100-item grammar section of the OPT (Allan, 2004) with an estimated time of 55-60 minutes for completion. The researchers selected the grammar section since grammatical knowledge has been linked in some studies to writing skill with some researchers providing evidence indicating that there is a link between students' knowledge of grammar and their writing (Jones, et al., 2013).

Three Types of Paragraphs

During the ten-session intervention the researchers taught the sixty monolingual and bilingual EFL learners and also asked them to write three types of paragraphs (persuasive, cause and effect, compare/contrast) where the researchers could study variations in the participants' DM usage (DM type and token frequency) and DM usage accuracy. The selection of the paragraph types was justified since the researchers found these paragraphs to be common in DM studies (e.g., Appel & Szeib, 2018; Rahimi, 2011). Overall, the paragraphs written by each group (monolingual and bilingual) were 90, amounting to 180 paragraphs for all the participants of the study. The researchers allocated a time limit of 40 minutes and a word limit of around 160 words to each paragraph. The topics were as following:

a. Should boys and girls be in separate classes? Give your reasons.
b. What are the causes and effects of air pollution?
c. Compare and contrast a teenager's life to that of a child.

DM Intervention

To make a reliable comparison of the monolinguals and bilinguals' DM usage, accuracy and recall and to diminish the impact of external factors like participants' previous DM knowledge on the results, the researchers needed to establish equal conditions for participants prior to the study of the variations in their

linguistic performance. Thus, the researchers held the DM intervention which included teaching a categorized list of the six DM types and their 64 DM tokens (Appendix 1), and the three paragraph types. The summary of the DMs compiled and prepared by the researchers, and shared with a colleague, encompassed definitions of the six DM types and their 64 tokens with illustrations of their meaning as well as the punctuation required for their implementation. The researchers taught the definition of DMs along with their examples and punctuations mainly to facilitate the monolinguals and bilinguals' DM recall. Every session, once the students were taught the DM types and tokens in class, the researchers asked them to write their own examples of the DMs taught in that session, which provided the participants with an opportunity for DM usage. To work on DM usage accuracy, one of the researchers, in charge of teaching the course, corrected the students' mistakes with feedback in class on the accurate usage of those DMs. Since DM usage required every participant to know paragraph writing, the intervention further involved notes on paragraph types which comprised two samples of each type of paragraph. Each session after teaching a paragraph type, the researcher asked the learners to write in class a paragraph of around 160 words in a time limit of 40 minutes on the related topic. In general, to teach the DMs (including the types and tokens) and the paragraph types, the researchers and the colleague drew on a deductive approach, i.e., the PPP (Presentation, Practice, Production) method. For example, to teach DMs, the teaching researcher and his colleague presented DMs along with their meanings and examples. Next, they helped students to practice using DMs. In a final stage, they asked the students to produce their own sentences with DMs.

DMs Multiple Choice Test

To test monolinguals and bilinguals' DM recall after the intervention, the researchers administered a 40-item researcher-developed multiple-choice test on different tokens of DMs as a pre-test and another version of the same test with re-ordered items as a post-test. The test required the students to answer the questions within 30 minutes. Furthermore, the test included two sections. The researchers constructed the first 21-itemed section mainly on the basis of the two versions of *Cambridge Preparation for the TOEFL Test* (Gear, 1993; Gear & Gear, 2006). In this section, they asked the participants to read the stem with a blank and select the correct DM from among four options. This section included DM tokens from different DM categories/types (contrastive, elaborative, conclusive, etc.). The second section involved four cloze tests adopted from the internet and modified for the purpose of the study. In this section, the test takers read the cloze tests and completed the gaps with one of the four given choices. Similar to the first section, this section involved DM tokens from different DM categories/types. To ensure the validity of the developed test, the researchers consulted TEFL experts' opinions and to ensure reliability, they carried out piloting, with Cronbach's alpha coefficient being 0.83. In terms of subscales, the first part of the test was found to be reliable with an alpha of 0.77, with the second part being reliable with 0.81.

Data Collection Procedure

The data collection procedure involved four steps. Initially, through convenience sampling, the researchers selected 105 students; the students were studying at the workplace of one of the researchers in Tehran and a colleague of his in the language institute in Tabriz. Later, the researchers selected 95 out of 105 students who had answered the background questionnaire through purposive sampling as monolingual and bilingual learners. Next, following the OPT, out of 95 participants, 30 trilingual and 33 bilingual participants (n= 63) were ranked as upper-intermediate based on their scores with one standard deviation above and below the mean (±1 SD). However, so as to have an equal number of participants for both groups, the researchers decided to ask 30 trilingual and 30 bilingual participants (n=60) to attend the DM intervention. Subsequently, they held a free extracurricular DM intervention comprising 10 consecutive 90-minute sessions to teach the students the three paragraph types and the six DM types and to administer both the pre-test and post-test. The course was held for monolingual and bilingual students in Tehran and Tabriz by one of the researchers and his former colleague, an M.A holder in TEFL, respectively. It should also be added that, in order to minimize any negative impact of having two different teachers for monolinguals and bilinguals on the outcomes of the study, the researchers provided the colleague with thorough briefings on how to teach DMs and paragraph types, particularly by sharing the DM and paragraph instruction notes. This way, the researchers could ensure that the monolingual and bilingual participants would receive similar instructions. The researchers have summarized the data collection procedure during the intervention in Figure 2.

Week	Activity
1	Pretest
2	Teaching elaborative markers
3	Teaching contrastive markers
4	Teaching inferential markers
5	Teaching conclusive, reason and exemplification markers
6	Teaching persuasive paragraphs
7	Teaching compare-and-contrast paragraphs
8	Teaching cause-and-effect paragraphs
9	Posttest
10	Answering students' questions about DMs and paragraphs

Figure 2: Weekly plan for the study

Further, concerning data collection and analysis, every session, students' paragraphs were collected, reviewed and analyzed by the researchers and a colleague-rater to find the frequency of DM types and tokens. Moreover, the teaching researcher and his colleague provided students with feedback on the grammar and lexicon as well as DM usage. It is worth pointing out that for ethical issues and to appreciate the students' participation, the researchers dedicated the last session to questions and answers posed by the participants about paragraph writing and DMs.

Data Analysis

To examine the first research questions on DM usage and accuracy, the researchers initially identified and labeled DM types and tokens. In identifying and labeling the DM types and tokens, they drew on the adapted version of Fraser's (1999) taxonomy of DM types and tokens (See Appendix 1). Following DM type and token identification, the researchers counted the frequencies of DM types and tokens deployed in each paragraph type and turned them into percentages. To answer the second research question and check DM usage accuracy, similarly, the researchers and a colleague-rater read and checked the paragraphs written by the monolingual and bilingual students to identify and label the overuse, underuse and misuse cases, and next they reported frequencies and percentages. In the post-test, the researchers ran two independent samples t-tests to compare the mean scores of the two groups on DM recall.

Before moving to the results, in what follows, some explanation appears necessary on how the researchers identified overuse, underuse and misuse problems in the paragraphs. One of the accuracy problems identified was overuse. To identify the overuse problem, the researchers considered the linguistic context of the DM used. In some cases, where there were too many attempts at DM usage in a rather short linguistic context and as a result, DM usage appeared unnecessary or unnatural, the researchers considered the utilized DMs as cases of overuse. This problem is elaborated on through a telling illustration from a bilingual learner's paragraph:

> I should say that, teenagers' life is more fun than children's life. **Because** they are kids **and** they enjoy their life without any stress. **And** they don't have to study **but** teenagers have stress about their field of study **because** that decision makes their future life.

In the excerpt above, there appears to be an overuse of DMs which has rendered the text difficult to understand. Whereas DMs are valuable tools for the creation of cohesion and coherence, simply forcing them in every possible sentence can lead to overuse rendering the text unnatural. The five DMs in just three lines seem to be a bit forced in; and it is often not what a competent writer does to convey ideas in a coherent manner. For instance, the following sentences can be a rephrased form of the excerpt above

> Considering the fact that children are not usually stressed, their lives can be more fun than teenagers'. Another reason can be related to the study concerns, which might be more important to teenagers than kids.

Another DM accuracy problem identified in the paragraphs was underuse. To pinpoint and label underuse cases, the researchers considered the linguistic context. When a DM appeared necessary between two sentences/segments and its absence could distort the intended meaning relation between the sentences/segments or make the sentences/segments vague, the researchers identified the case as one of underuse. The two examples below, extracted from monolingual and bilingual learners' paragraphs can indicate the underuse problem more clearly:

> Teenagers have a lot of stress. They don't get good marks at exams (Bilingual).

> Teenagers like many things. They watch films and listen to music (Monolingual).

The first example from a bilingual learner's paragraph appears to lack an inferential marker between the first and the second sentence/segment. It would have been more coherent and easier to understand had it been 'Teenagers have a lot of stress. **As a result,** they don't get good marks at exams.' Without this DM, the writer does not appear to easily convey the inferential relation between the two sentences/segments to the reader. The example identified in the monolingual learner's paragraph appears to need a DM, in this case, an exemplification marker. The second sentence/segment from the monolingual learner's paragraph appears to be an example for the first sentence/segment. However, due to a lack of an exemplification DM usage, the writer does not seem to easily convey the relation, and this may confuse the reader. Thus, it would have sounded more accurate had it been 'Teenagers like many things. **For instance,** they watch films and listen to music'.

The third DM accuracy problem identified in the monolingual and bilingual writers' paragraphs was misuse. To identify and label DM misuse cases, the researchers again relied on the linguistic context where a DM was used and likewise tried to see whether the utilized DM could convey the intended meaning or function between two or more sentences/segments. The two following examples from monolingual and bilingual writers' paragraphs may illustrate the misuse problem more vividly:

> *Air pollution causes headache, coughing, and sore throat. **Also**, it's dangerous (Bilingual).*

> *Some boys and girls have their own behavior. So it's kind of hard for others to handle them. **On the other hand**, some of them may be shy or scare from others. And some of them may be rude (Monolingual).*

In the first example from a bilingual learner's paragraph, it appears that the learner has wrongly used an elaborative marker to convey a relation between the two sentences/segments which could be an inferential one. That is, here what the learner might need most appears to be an inferential marker. For instance, the inferential marker 'therefore' can be a good choice. As for the example from the monolingual learner's paragraph, it can be said that 'on the other hand' is a token of contrastive markers which, according to Fraser (1999), shows that the explicit interpretation of the second segment contrasts with an interpretation of the first segment. Nevertheless, here in this example, it seems that an exemplification marker such as 'for instance' would do right; this is because the second sentence/segment appears to be an example of the first sentence/segment which is broad and more like a topic sentence.

Results

In what follows, the researchers present the results of the analyses in the current study with respect to DM usage (DM types and tokens), accuracy (overuse, underuse and misuse) and recall.

DM usage

In the first research question, we sought to discover DM usage through the frequency of DM types and tokens in Iranian monolingual and/ or bilingual EFL learners' paragraphs. As Table 1 illustrates, in the monolinguals' paragraphs, elaborative (25.35%) and contrastive (25%) markers formed the largest percentage of usage, followed by reason (19.10%), and inferential (17.67%) markers. Conclusive (12.5%) and exemplification (00.35%) markers had the least occurrences, respectively. On the other hand, in the bilinguals' paragraphs, elaborative (36.56%), reason (20.49%), and contrastive (20.05%) markers were the most frequent followed by inferential markers (14.22%), whereas exemplification (.8%) and conclusive (.03%) markers were the least frequent, respectively.

DM types	In monolinguals' paragraphs		In bilinguals' paragraphs	
	Frequency	Percentage	Frequency	Percentage
Elaborative	142	25.35	370	36.56
Contrastive	140	25	203	20.05
Reason	107	19.10	212	20.49
Inferential	99	17.67	144	14.22
Exemplification	2	00.35	80	8
Conclusive	70	12.5	3	.03

Table 1: DM types frequency and percentage in monolinguals' and bilinguals' paragraphs

Overall, as Table 1 displays, the DM type hierarchy mainly followed a similar trend in both groups' paragraphs. That is, bilingualism did not seem to affect the DM type usage much. More precisely, for both monolinguals and bilinguals, elaborative, reason and contrastive markers are the most common, with

inferential as the fourth markers. Nonetheless, a minor difference is observable in the two groups' DM type usage. Throughout their paragraphs, bilinguals employed more exemplification markers than their monolingual counterparts whereas monolingual learners employed more conclusive DMs than bilinguals.

The researchers likewise analyzed DM tokens to examine the participants' DM usage. Tables 2 and 3 provide a comparative analysis of the frequency of the DM tokens employed by monolinguals and bilinguals. Analysis of both monolingual and bilingual students' paragraphs indicated that these students overall drew on 31 out of the 64 DM tokens taught during the intervention. A complete list of all 64 tokens appears in Appendix 1.

DM types	DM tokens	Frequency	Percentage
Elaborative markers	And	57	10.17
	Also	42	7.5
	In addition	11	1.96
	I mean	7	1.25
	Well	7	1.25
	Besides	6	1.07
	Similarly	6	1.07
	Moreover	6	1.07
Contrastive markers	But	72	12.85
	(Al)though	37	6.60
	However	13	2.32
	On the other hand	5	.09
	Whereas	5	.09
	On the contrary	3	.05
	In contrast	3	.05
	Despite this/that	2	.04
Inferential markers	So	41	7.32
	Because of this/that	24	4.28
	As a result	20	3.57
	Of course	8	1.42
	Therefore	5	.09
	As a consequence	1	.02
Conclusive markers	In conclusion	66	11.78
	In sum	4	.07
Reason markers	Because	96	17.14
	For this/that reason	6	1.07
	Since	5	.09
Exemplification markers	For example	1	.02
	Such as	1	.02

Table 2: DM tokens frequency and percentage in monolingual learners' paragraphs

DM types	DM tokens	Frequency	Percentage
Elaborative markers	And	132	13
	Also	91	8
	In addition	65	6.42
	Well	27	2.66
	I mean	18	1.77
	Besides	16	1.58
	Similarly	9	.08
	What's more	8	.07
	Moreover	4	.04
Contrastive markers	But	115	11.36
	(Al)though	40	3.95
	However	22	2.17
	On the other hand	11	1.08
	On the contrary	6	.05
	Whereas	4	.04
	In contrast	4	.04
	Despite this/that	1	.01

Inferential markers	So	58	5.73
	As a result	31	3.06
	Because of this/that	29	2.86
	Of course	14	1.38
	As a consequence	7	.06
	Therefore	5	.05
Conclusive markers	In conclusion	3	.03
Reason markers	Because	108	10.67
	For this/ that reason	73	7.21
	Since	31	3.06
Exemplification markers	For example	45	4.44
	Like	27	2.66
	Such as	8	.08

Table 3: DM tokens frequency and percentage in bilingual learners' paragraphs

Results from DM token analysis indicated that generally there was no particular variation manifested in the monolingual and bilingual writers' DM token usage patterns. That is, bilingualism did not lead to any particular variation between the monolingual and bilingual EFL learners' DM token usage. Yet, as Tables 2 and 3 illustrate, some resemblances between monolinguals and bilinguals such as avoiding formal and more demanding DM tokens like 'as a consequence' and relying on easier tokens like 'so' as well as 'and' are observable.

DM Usage Accuracy

In the second research question, the researchers explored the monolingual and bilingual participants' DM usage accuracy. More specifically, they sought to find out how the participants tackled problems of overuse, underuse and misuse in their paragraphs, and whether bilinguals were more accurate in their DM usage. Table 4 indicates the number of paragraphs inflicted with the accuracy problems (overuse, underuse and misuse).

DM usage problem	Monolinguals' 90 paragraphs		Bilinguals' 90 paragraphs		Total
	Frequency	Percentage	Frequency	Percentage	
Overuse	23	25.55	61	67.77	84
Underuse	16	17.77	9	10	25
Misuse	12	13.33	15	16.66	27

Table 4: Overuse, underuse and misuse problems in monolinguals and bilinguals' paragraphs

The most outstanding DM usage accuracy variation between monolinguals and bilinguals appears in overuse. Whereas overuse does not seem to be a serious issue in monolinguals' paragraphs (25.55%), it is certainly a sizeable issue in bilinguals' paragraphs (67.77). However, underuse does not seem to vary drastically between the groups. Out of monolinguals' 90 paragraphs, almost 17% seem to suffer from underuse while DMs are underused only in 10% of bilinguals' paragraphs. Similarly, misuse does not vary in a marked manner in monolinguals' (13.33%) and bilinguals' (16.66) paragraphs. In sum, it appears that the variations between monolinguals and bilinguals were almost non-existent or minimal in terms of DM usage. Concerning DM types, minor variations were observable whereas the distribution of DM tokens was rather similar in both groups' paragraphs. Perhaps, the difference regarding overuse can be the most noticeable variation in terms of DM usage.

DM Recall

The third research question focused on possible variations between monolinguals and bilinguals in DM recall after their intervention. The data obtained from the independent samples t-test on monolingual and bilingual participants' pretest stressed the groups' homogeneity with respect to their prior DM knowledge. Whilst the mean score of the 30 monolingual test takers in the pretest was 16.13, the 30 bilingual test takers' mean was 17. To guarantee the test takers' homogeneity prior to the study, the researchers computed an independent samples t-test, the results of which are given in Table 5.

	Levene's Test for Equality of Variances		T-test for Equality of Means			
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference
Pretest	1.098	.229	.488	58	.627	.867

Table 5: Independent T-test results for monolingual and bilingual groups' homogeneity

The independent samples t-test results confirmed their homogeneity preceding the intervention with respect to their DM knowledge. Monolingual (M=16. 13, SD= 6.43), and bilingual test takers (M=17.00, SD= 7.29), t (58) = .488, p = 0.627) did not vary significantly in terms of their DM knowledge prior to the DM instruction. That is, the *p* value (*p* = 0.627) was greater than 0.05, and for this reason, the variation in the DM knowledge between the two groups could be considered insignificant. Next, the researchers compared the post-tests of the two groups to see their DM recall after the intervention. The mean scores of the monolingual (21.87) and bilingual test takers (26.10) in the posttest implied some variation in favor of bilinguals. Nevertheless, to ensure any (in) significant variation there was a need for an independent samples t-test. Table 6 indicates the monolinguals and bilinguals' varying linguistic performances.

	Levene's Test for Equality of Variances		T-test for Equality of Means			
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference
Post-test	.637	.428	2.245	58	.029	4.233

Table 6: Independent T-test results for monolingual and bilingual groups' variations

As given in Table 6, the evidence from the independent samples test on the post-tests of the two groups unearthed a significant variation in the performance of monolingual test takers in the post-test on the multiple-choice DM test (M=21.87, SD= 7.763) and their bilingual counterparts (M=26.10, SD= 6.815), t (58) = 2.245, p= .029), with bilinguals outperforming their monolingual counterparts. Thus, the variation in DM recall could be considered significant since the *p* value (*p*= .029) was less than 0.05. Moreover, the effect size was calculated to be 0.62, which is large. Thus, the outcomes might suggest the impact of bilingualism on Iranian monolingual and bilingual EFL learners' linguistic performance on DM recall after the intervention.

Discussion

In the current study, the researchers drew on a DM intervention to examine the possible variations in Iranian monolingual and bilingual EFL learners' DM usage, accuracy and recall. Concerning the first research question and monolinguals and bilinguals' DM type and token usage, in general, the outcomes indicated an almost minimal impact of bilingualism on DM usage. More specifically, regarding DM types, minor variations, only in two DM types, were observable while this impact was non-existent in DM tokens. The results chiefly highlight the impact of other factors rather than varying linguistic backgrounds or bilingualism on the participants' DM type usage. For instance, the similar pattern of the first four incidences of DM types can be, as stated by Werlich (1982) and later confirmed by other researchers (Buysse, 2012; Rahimi, 2011), traced back to different text types (i.e., persuasive, compare-and-contrast and cause-and-effect paragraphs) and even the nature of the task (Basturkmen & Randow, 2014).)

Nevertheless, bilingualism still seems to have some, though minor, impact on the two groups' variation in their conclusive and exemplification markers usage. The divergence seems to stem principally from the bilinguals' habit of resorting to their L1 in L3 learning (Angelovska, 2018; Antonova-Ünlü & Sağın-Şimşek, 2015). Hence, the Turkish-Persian bilingual writers employed more exemplification markers in the same way they often employ exemplification markers such as 'masalan' (/mæsˈælæn/, مثلا, for example in English) in their Turkish speech not solely to give examples yet to elaborate more on an idea, as well. The literature (Buysse, 2012; Zareva, 2011) has corroborated such DM usage to convey a relation other than its usual one.

Concerning the second research question and monolinguals and bilinguals' accuracy problems of overuse, underuse and misuse, results indicated that bilinguals were not more accurate than their monolingual counterparts. Like monolinguals, bilinguals tended to be underusers and misusers of DMs. The only marked variation in terms of DM usage accuracy was that bilinguals tended to overuse DMs notably more than monolinguals. DM overuse, observed in other similar studies (e.g., Buysse, 2012; Xuemei 2007; Zhang, 2000), can be accounted for from two aspects. At first glance, bilingualism appears to have an impact. In all probability, the bilingual learners deployed more DMs as their strategy to lend coherence to their written productions. This assumption supports previous studies (Kostić-Bobanović & Bobanović, 2010; Grenfell & Harris, 2015) reporting that bilinguals draw on more strategies than monolinguals in learning a third language. Hence, bilinguals may resort to overusing DMs supposedly as their best recourse, albeit at times to no avail, to create more coherence in their paragraphs. This intentional greater implementation of strategies by bilinguals in the target language also seems to be consistent with Kostić-Bobanović and Bobanović's (2010) finding that bilingual learners plan for their success. That is, it might be the case that

the bilingual learners intentionally and probably consciously planned to capitalize on as many DMs as possible so as to render a coherent text. Second, and in a similar fashion, as Xuemei (2007) believed, overuse in EFL learners' written productions has to do with some insecurity among these learners as to the effectiveness of their own writing. Being cognizant of the limitations of their linguistic repertoire, perceiving DMs as an easy medium for text organization and seeking to make an impression (Crewe, 1990), learners may feel a greater need to emphasize the relevance of what they have to say through DM usage.

Concerning the third research question and the possible variations in DM recall, the independent samples t-test run on the participants' post-test demonstrated a marked variation in DM recall favoring bilingual learners. The finding, in the first place, might seem to support the ones reported in the literature related to the Iranian context (e.g., Farhadian, et al., 2010; Keshavarz & Astaneh, 2004, among others) as well as contexts beyond that (Grady, et al., 2015; Poarch & Bialystok, 2015). As they concluded, bilingual learners outperformed their monolingual counterparts. Unlike the findings concerning DM usage and accuracy, which revealed no advantages for bilinguals in linguistic production, the finding on DM recall seems to indicate some of bilinguals' purported linguistic superiority, which of course might be limited to DM recall only.

These contradictory findings, in DM usage and recall, might also be related to the nature of the tasks and their cognitive requirements. In DM usage and accuracy, which are related to language production, there might be too high a cognitive workload for both monolingual and bilingual learners, thus diminishing the positive impact of bilingualism for bilinguals and leaving both groups on a level playing field. However, on a multiple-choice test targeting recall, lower cognitive workload might be required, which may help bilinguals perform better linguistically. Another reason might be related to an external factor, i.e., test taking skills. It might be that the bilinguals were better test takers than monolinguals, which indicates the need for further research considering such issues.

Conclusion

Overall, the available evidence in this study confirms the inconclusive outcomes reported by other researchers. The literature on monolinguals and bilinguals' variations comprises two groups of studies in general, with one group supporting bilinguals' advantage over monolinguals (e.g., Grady, et al., 2015; Maluch & Kempert, 2017; Poarch & Bialystok, 2015), and another group rejecting any such advantages and superiority (e.g., Au-Yeung et al., 2015, Shabani & Najafi-Sarem, 2009, van Gelderen et al., 2003). In fact, our inconclusive results indicate that bilingualism might be linked to a variation in a certain aspect of linguistic performance on a foreign language, and at times probably present an advantage for bilinguals. However, bilingualism might not be present in all aspects of learners' linguistic performance and thus fail to give them an edge in other facets of linguistic performance. Particularly, considering that bilinguals in this study had received no formal training in their L1, we might agree with other researchers (e.g., Cummins, 1991; Grenfell & Harris, 2015; Maluch & Kempert, 2017) that the bilingualism advantages might not be very conspicuous for bilinguals with no literacy in their L1. In our study, the probable bilingualism advantages seemed to be limited to DM recall, and from the linguistic production perspective (i.e. DM usage and accuracy), we observed no conspicuous advantages.

Limitations of the study include the focus on only Turkish-Persian bilinguals among other Iranian bilingual students (Kurdish, Baluch, etc.), a lack of an in-depth study of the impact of negative transfer from L1 and different text types on DM usage, and a lack of an introspective study through individual interviews or think-aloud protocols to learn precisely what caused the L3 learners to outperform the L2 learners. Due to these limitations, the findings may not be generalizable to all bilingual educational settings, particularly bilinguals with L1 literacy.

Despite the limitations, the findings of this study offer some implications. Overall, the outcomes of this study can provide EFL teachers and syllabus designers in bilingual contexts with insight into students' linguistic potentials with reference to their varying linguistic backgrounds and experiences so that a substantial framework can be prepared for an appropriate teaching and provision of DMs and cohesive writing to such learners. Similarly, the findings may add more clarity to the existing literature on monolinguals and bilinguals' variations or resemblances in terms of language production or recall. More specifically, EFL teachers and syllabus designers alike should be cognizant of the differences between learners in monolingual and bilingual contexts so that they can find better solutions to solve some distinctive instructional problems in such environments. Given Iranian monolingual and bilingual EFL learners' avoidance of formal and more demanding DM tokens and reliance on easier tokens in their written products, it might be important for EFL teachers to raise their consciousness of the higher significance of more formal DMs in written productions

compared to the easier and usually informal DMs. In this regard, rewriting exercises could also be offered to students, with the instructions requiring them to rewrite a short paragraph in a more-academic-like way. Additionally, considering the problems related to accuracy in DM usage it is important to raise students' awareness of how cohesive writing can be achieved without resort to DM overuse.

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Appendix 1

List of DM Tokens

Elaborative Markers	and, also, moreover, furthermore, in addition, besides, what's more, more to the point, better yet, i mean, otherwise, namely, but equally, correspondingly, in particular, above all, likewise, similarly, well, on top of it all
Contrastive Markers	but, whereas, however, instead, in contrast, on the contrary, contrary to this, conversely, on the other hand, rather, although, though, in spite of this, despite this, nevertheless, nonetheless, in comparison,
Inferential Markers	so, as a result, therefore, thus, as a consequence, consequently, hence, accordingly, all things considered, of course, because of that, under these conditions, then, as a logical conclusion, in that case,
Conclusive Markers	in conclusion, in sum, to sum up,
Reason/Causative Markers	since, after all, due to the fact that for this reason, because
Exemplification Markers	for example, for instance, such as like