

The Effect of Explicit Instruction of Textual Discourse Markers on Saudi EFL Learners' Reading Comprehension

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Abstract

Discourse markers (DMs) instruction is currently receiving an increasing amount of attention in the literature on second language learning. As noted by Al-Yaari, Al Hammadi, Alyami, and Almaflehi (2013), and Algouzi (2014), the use of DMs is insufficient to support the development of the language skills, especially reading, of Saudi English as a Foreign Language (EFL) learners'. Recurrent reports (e.g., Al Abik, 2014; Al-Mansour & Al-Shorman, 2011) have shown that Saudi EFL learners perform poorly on reading comprehension tasks. Since these studies were generally descriptive, the current study attempted to fill the gap by providing empirical data, particular to low-proficiency learners in the Saudi EFL context, based on an eight-session intervention programme to familiarise learners with DMs. This study hypothesised that explicit DM instruction could improve learners' reading comprehension and that there would be a significant positive relationship between Saudi EFL learners' knowledge of DMs and their reading performance. To test these hypotheses, two classes with a total of 70 Saudi male third-grade secondary students were assigned as control and experimental groups. The experimental group was introduced to the intervention programme, whereas the control group was only taught the prescribed reading lessons. Two forms of tests in both DMs and reading comprehension were administered to the two groups before and after the intervention. A correlation analysis was also run to determine the relationship between learners' knowledge of DMs and their reading performance. Results confirmed, with a large effect size, that explicit instruction in DMs improved low-proficiency EFL learners' reading comprehension. The finding also suggested that knowledge of DMs correlated highly with reading comprehension. In other words, learners who were good at recognising DMs performed better in reading comprehension tasks, whereas those who were poor at recognising DMs performed poorly. Practical suggestions for pedagogy and future research were also identified.

Keywords: discourse marker, EFL learner, reading comprehension

1. Introduction

When a written text is understood, reading can be a fascinating and inspiring experience. Reading also offers us different perspectives on life and enhances our creativity. Reading can inform our knowledge and develop our vocabulary. However, when a message is not understood, the reading experience can have negative and far-reaching consequences for students' learning and overall development.

Reading comprehension is a process that triggers highly sophisticated operations irrespective of the text's language. Some aspects of reading comprehension might include the gradual building up of understanding as we read, the confirmation of predictions by later information, the facilitation of guessing the meanings of new vocabulary words, the making of connections between different parts of a text to support interpretation, the support of comprehension by scanning and cues from sentence structure and punctuation, and many more skills (Clarke, Truelove, Hulme, & Snowling, 2014). However, when it comes to interpreting text, readers differ from each other as they interact with the text in different ways.

There have been many attempts to explain reading comprehension. Two of the most well-known models for reading comprehension are the simple view of reading (Gough & Tunmer, 1986) and the construction-integration model (Kintsch & Rawson, 2005). According to the simple view of reading, successful comprehension occurs

when the reader is able to recognise words (decoding) and understand spoken language (listening comprehension). In this model, poor readers experience difficulties with decoding, listening comprehension, or both skills. The construction-integration model proposes that readers construct personal representations of the texts they read based on the interaction between the information in the text and the reader's background knowledge about the topic of the passage and its vocabulary. Kintsch and Rawson (2005) argue that comprehension occurs on three levels: linguistic (processing individual words), microstructure (processing large chunks of text), and macrostructure (processing themes and genre information about the text). Because of the complexity of this process, learners often struggle to become proficient readers.

Poor comprehension can be the result of multiple factors. These include weaknesses in language skills such as phonology, semantics, grammar, and pragmatics. Other related difficulties can be observed in learners' attempts to understand the meaning of words and identify the structure and organisation of words, sentences, and connected text. Working memory is another factor that influences reading comprehension because it is needed to hold information while processing a text. With regard to text-level skills, poor reading comprehension is visible in skills such as inferencing and monitoring understanding (Clarke et al., 2014). Motivation is influential with respect to reading comprehension, as motivated readers are more active and engaged with reading activities; hence, the "Matthew Effect", which refers to the positive result of enjoying reading at school that extends to pleasure reading at home, is observed (Stanovich, 1986). This means that some comprehension difficulties can be overcome by sustaining a reader's motivation, encouraging enjoyment of reading and reading at home, and exposure to interesting reading materials.

Reading becomes even more complex and multidimensional when it is in a foreign language, as is the case when Saudi Arabian students read texts in English. Indeed, as Garcia (2003, p. 31) convincingly puts it: "reading comprehension performance of English language learners is a complex endeavor because of the multiple program, instructional, language, cultural, and affective factors that may intersect and affect their reading development". Some of the domains that affect reading comprehension of EFL learners are cognitive, linguistic, sociocultural, and developmental (Kucer & Silva, 2006). Similarly, according to Birch (2007), effective reading comprehension in an EFL situation can be influenced by linguistic knowledge, interference of the first language (L1), and the availability of processing strategies.

EFL learners may lack the necessary knowledge of English language sounds, vocabulary, grammar, or culture, which can obstruct their ability to comprehend. Another influential factor is L1 interference, since readers draw on their L1 knowledge base to process English texts. L1 influence can actually facilitate second language (L2) reading comprehension, but it can also be harmful. Besides linguistic knowledge and L1 interference, missing low-level processing strategies can significantly impede an EFL reader's progress. These problems may require EFL teachers to provide their students with direct instruction and remediation.

In Saudi EFL classrooms, reading is a problematic skill for teachers and learners. According to Al-Mansour and Al-Shorman (2011), Saudi EFL students of different educational levels are unable to read efficiently or comprehend what they read. In fact, TOEFL (Test of English as a Foreign Language) reports for the past ten years shows that Saudi students' performance is the worst among Middle Eastern students, particularly in reading (Al Abik, 2014). Even worse, Al Abik (2014) points out that Saudi TOEFL candidates' average mean score in reading ($X=12$) is far below the average mean score worldwide ($X=20$). This result was supported by his own study of Saudi English-major undergraduates, in which he concluded that the majority of students (almost 70 percent) who were majoring in English and translation could not score more than 10 in the reading comprehension test. He emphasised that reading comprehension instruction in Saudi Arabia is not given proper attention and that there is an urgent need to change classroom practices in order to develop students' reading skills. Alsamadani (2011) affirms that reading instruction in Saudi schools is generally made up of oral repetition of passages and a literal level of comprehension.

An integral part of reading comprehension is the learner's knowledge of discourse markers (DMs). Swan (2005, p. 13) defines a discourse marker as "a word or expression which shows the connection between what is being said and the wider context". DMs are linguistic expressions that connect sentences, show the attitudes of the speaker, and facilitate understanding of texts (Ismail, 2012). DMs can have various classifications, but one of the most comprehensive is presented in Hyland and Tse (2004) who classified DMs into interactive and interactional markers.

Interactive or textual markers guide the reader through the text. They are made up of conjunct, adverbial, and paraphrasing expressions that can be divided into five categories: transitions, frame markers, endophoric markers, evidentials, and code glosses (Hyland & Tse, 2004). Transitions express the semantic relationship between

sentences and main clauses (e.g., in addition, moreover, but, thus, and), whereas frame markers indicate text acts, stages or sequence (e.g., first, to conclude, finally). Endophoric markers refer the reader to the location of information in other parts of the text (e.g., see Figure X, noted above), while evidentials refer readers to other texts (e.g., X states, according to Y). Code glosses support the reader's understanding of the functional value of ideas in the text (e.g., in other words, namely, such as).

Interactional markers aim at engaging readers in the argument proposed by the text. They are subdivided into hedges, boosters, attitude markers, engagement markers, and self-mentions. Hedges are expressions that show that the author is not fully committed to a proposition (e.g., might, perhaps, possibly). Contrary to hedges, boosters indicate the writer's certainty and commitment to the proposition in the text (e.g., indeed, in fact, definitely). Attitude markers convey the author's attitudes towards the information in the text, which could include showing agreement, importance, or preference (e.g., I agree, sadly, fortunately). Engagement markers are expressions that attempt to immerse readers in the text by capturing their attention or inducing them to build a relationship between them and the text (e.g., think of, you can see, note that). Finally, self-mention markers show the writer's presence in the text through the existence of first-person pronouns or possessives (e.g., I, we, our) (Hyland & Tse, 2004).

An EFL reader's knowledge of DMs is crucial to his/her reading ability. It is not possible to understand a text without identifying the elements that contribute to the creation of meaning such as DMs (Aidinlou & Shahrokhi, 2012). It is believed that DMs correlate highly with reading comprehension and that they facilitate the EFL reader's understanding by improving his/her reading speed and recall (Khatib & Safari, 2011; Martinez, 2009). Although very few studies indicated that DMs have little or no effect on reading comprehension (e.g., Degand et al., 1998), the majority of the literature on DMs shows a significant positive effect (Khatib & Safari, 2011).

The findings of Bahrami's (1992) experimental study show that introducing more DMs in reading passages significantly improves students' reading comprehension abilities. Conversely, Akbarian (1998) and Degand et al. (1999) concluded that omitting DMs from passages negatively influenced students' comprehension. Innajih (2007) found that explicit instruction of DM types and functions seemed to enhance EFL learners' performance in reading comprehension tests. Therefore, it can be inferred that DMs play a vital role in the development of reading skills, particularly in EFL contexts.

Given the importance of DMs in facilitating reading comprehension for EFL readers and the poor performance of Saudi students on standardized tests, it is safe to say that this issue has not been given proper attention in the Saudi EFL teaching context. Although there have been very few studies investigating the topic of DMs and Saudi performance, both the studies of Al-Yaari et al. (2013) and Algouzi (2014) compared the use of English discourse markers by Saudi learners with that of native speakers and other EFL learners. They attempted to identify the most frequent DMs used by Saudi learners in EFL classrooms and how and why Saudi EFL learners use DMs the way they do. These studies, although descriptive in nature, concluded that "and", "but", and "also" are the most frequent DMs used by Saudi EFL learners and that they used DMs less than native speakers and other EFL learners. They believed that the inability of Saudi EFL learners to use the correct or the most appropriate DMs could be due to lack of explicit training and L1 interference.

The interest in conducting this study was based on the unsatisfactory state of reading instruction in Saudi Arabia and the lack of sufficient empirical literature on the topic of DM instruction to low-proficiency EFL learners. The effect of DM instruction on secondary-stage EFL learners' reading comprehension has been largely ignored in previous studies compared to studies of tertiary-level EFL learners. The current study attempted to investigate the effect of explicit instruction in DMs for Saudi EFL learners on their reading comprehension abilities and determine whether a learner's level of knowledge of DMs is related to his/her reading comprehension performance. To this end, the following research questions were developed:

- 1) Will explicit instruction in DMs positively influence EFL learners' reading comprehension?
- 2) Is there a significant relationship between the EFL learners' recognition of discourse markers and their reading comprehension?

This study contributes to an understanding of the role played by explicit instruction in DMs in reading classes of low-proficiency EFL learners, through an exploration of the effect of DMs on the development of their reading comprehension. It also attempts to identify the relationship between EFL learners' recognition level of DMs and their reading comprehension performance. The results of this study may therefore be of benefit in second-language reading instruction if they convince course designers and EFL instructors of the importance of DMs in the L2 classroom.

Following this introduction, the methodological approach adopted in this study will be presented. The major research instruments (the language proficiency test, the reading comprehension test, and the DM test) are identified and the procedures followed in collecting and analysing data are stated. Key results from an analysis of the research data are presented and discussed along with implications and recommendations for future research.

2. Methods

2.1 Participants

The participants of the present study included 70 Saudi male third-grade secondary students between the ages of 16 and 17 from the Taif Directorate of Education who had been studying English language for the past six years in public schools. To ensure the homogeneity of the participants, the TOEFL Junior Standard Test was administered, and the students participating in the study were randomly assigned into a control and an experimental group. Both groups were taught by the same teacher.

2.2 Instruments and Materials

2.2.1 Language Proficiency Test

The TOEFL Junior Standard Test was used in this study to identify the Common European Framework of Reference for Languages (CEFR) level of the students to make sure that both groups were homogenous and that no significant differences existed between them with regard to their language proficiency prior to the planned intervention. The scores were also mapped to CEFR levels to help in understanding students' English proficiency levels. The TOEFL Junior Standard Test is intended for students ages 11+ and is often used for classroom placement purposes. The two-hour test consists of 126 items testing three areas: listening comprehension (42 items), reading comprehension (42 items), and language form and meaning (42 items). This test was administered at the beginning of the term; results showed that the students' proficiency levels were between levels A1 and A2 on the CEFR. The scores did not show any significant differences between the two groups.

2.2.2 Reading Comprehension Test

The reading comprehension sections of two TELC (The European Language Certificates) test forms were used to assess students' general reading comprehension abilities before and after the intervention. The TELC test was used because it offers language tests that are especially designed for the A1 and A2 levels of foreign language learners. It was used to examine whether the DM instructional treatment had any effect on general reading comprehension ability.

Each test form had a total of 12 matching items based on three reading passages. The answers were scored as either correct or incorrect with a total achievable score of 24. The internal consistency reliability coefficients (Cronbach's alpha) for Forms A and B based on students' performances on the pretest were found to be 0.80 and 0.83 respectively.

2.2.3 DMs Test

Two forms of DM tests based on Hyland and Tse's (2004) model were administered: the first one as pre-test to evaluate the homogeneity of the two participating groups and the second as post-test in order to compare the two groups after the intervention. The DMs used in the DMs tests are:

in addition, furthermore, however, yet, but, and, thus, firstly, secondly, then, after that, finally, to conclude, my purpose is to, because, so, consequently, noted above, see figure, in part 2, according to, X states, namely, e.g., such as, for example, in other words, might, perhaps, possible, about, in fact, definitely, clearly, unfortunately, I agree, surprisingly, consider, note that, you can see, I, we, my, and our.

Fifty multiple-choice items were developed for these DMs. Fifty sentences from authentic texts of the appropriate level of difficulty were selected. Each sentence had one DM removed and four choices of DMs provided to students to fill in the gap. These items were piloted at another secondary school and an item analysis was performed. Henning's (1987) facility and discriminability indices were used to verify the appropriacy of each item. According to these indices, items with an item facility ranging from 0.33 to 0.67 and an item discrimination of 0.67 and above were considered appropriate. Thirty of the items had the appropriate item facility and item discrimination and five of the remaining items had some minor problems that were addressed. These thirty-five items made up the final form of the DMs test.

2.2.4 Classroom Materials

Students in the experimental group were given training sessions on DMs, which involved hand-outs and an

exercise book to develop students' awareness and appropriate use of different categories of DMs in selected samples of reading passages. In an attempt to deal with the "Hawthorne Effect" (The claim that participants change their behaviour whenever they are being observed or included in a study), a few of these handouts were also given to the control group.

2.3 Procedure

Initially, the TOEFL Junior Standard Test was administered to determine the language proficiency level of the participating classes. This was followed by assigning the participating students to control and experimental groups. Before the intervention programme, the pretests for reading comprehension and DMs were administered to both the experimental and control groups. The learners in the experimental group were introduced to the treatment programme, which involved eight sessions of DM instruction. In each session, they were familiarised with some types of DMs, which were explicitly taught through specially designed activities and training exercises.

No explicit DM instruction was introduced to the control group participants. They were only given a few of the designed activities as they worked through their usual reading classes. After the intervention, in order to see the effect of the DM instruction on students' reading comprehension, participants in both groups were given post-tests in reading comprehension and DMs. By comparing the results obtained from the two groups, the researcher intended to investigate whether any significant difference existed between the performance of the experimental group and the control group after receiving DM instruction.

3. Results

In this section, a description of the statistical analyses of the data obtained in the present study is presented. First, a descriptive statistics method was used to determine the proficiency level of the participants. Then, a paired-samples t-test was performed to compare the performance of the participants in the experimental group on the pre- and post-tests. An independent-samples t-test was used to compare the pretest scores of both groups. To identify any significant difference between the experimental and control groups, an independent-samples t-test was run. Finally, to determine whether there was a relationship between learners' knowledge of DMs and their reading comprehension, a correlation analysis between their scores in the reading comprehension and DMs tests was done.

3.1 Administering the TOEFL Junior Standard Test

The TOEFL Junior Standard Test, consisting of three sections (listening comprehension, reading comprehension, and language form and meaning) was administered to two classes made up of 70 Saudi male third-grade secondary students from the Taif Directorate of Education assigned to an experimental group or a control group. The descriptive statistics of this test are shown in Table 1.

Table 1. Descriptive statistics of the TOEFL junior standard test

N	Minimum	Maximum	Mean	Std. Deviation
70	176	240	201,18	22.024

3.2 Administering the Reading Comprehension Pretest

The reading comprehension test (TELC) was also administered to the above-mentioned classes. The scores of the participants in reading comprehension in the pretest were analysed separately to ensure that the two groups were similar in terms of their reading ability before the intervention. The descriptive statistics of this test are shown in Table 2.

Table 2. Descriptive statistics of the reading comprehension (TELC) pretest

Group	N	Minimum	Maximum	Mean	Std. Deviation
Cont.	35	2	24	13.40	5.897
Exp.	35	1	24	12.80	5.944

3.3 Checking the Normality of Pretest Reading Scores and Homogeneity of the Two Groups

To assess the normality of the distribution of the pretest reading comprehension scores, a normality test (the

Kolmogorov-Smirnovtest) was carried out. The non-significant result (sig. value of .200) indicated normality.

Table 3. Normality test for reading comprehension pretest

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Reading Test	.089	70	.200*	.966	70	.053

An independent-samples t-test was run to check the homogeneity of the two groups and to compare reading comprehension scores before the intervention programme. As shown in Table 4, there was no significant difference in the scores of the control group ($M = 13.40$, $SD = 5.897$) and the experimental group ($M = 12.80$, $SD = 5.944$; $t(86) = .081$, $p = .936$, two-tailed). The magnitude of the differences in the means (mean difference = .114, 95% *CI*: -2.71 to 2.93) was very small (eta squared = .006).

Table 4. Independent-samples t-test of the means of the two groups on the reading pretest

	Levene's Test for Equality		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence	
								Lower	Upper
Equal variances assumed	.001	.973	.081	68	.936	.114	1.415	-2.71	2.93

3.4 Checking the Normality of DM Pretest Scores and Homogeneity of the Two Groups

To assess the normality of the distribution of the DM pretest scores, a normality test (the Kolmogorov-Smirnovtest) was carried out as shown in Table 5. The non-significant result (sig. value of .187) indicated normality.

Table 5. Normality test for reading DMs pretest

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Reading Test	0.095	70	.187	.973	70	.140

An independent-samples t-test was run to compare the DM pretest scores before the intervention for the control and the experimental groups. As shown in Table 6, there was no significant difference between scores for the control group ($M = 18.54$, $SD = 6.070$) and the experimental group ($M = 17.83$, $SD = 5.943$; $t(86) = .497$, $p = .620$, two-tailed). The magnitude of the differences in the means (mean difference = .714, 95% *CI*: -2.151 to 3.580) was very small (eta squared = .003).

Table 6. Independent-samples t-test of the means of the two groups on the DM pretest

	Levene's Test for Equality		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence	
								Lower	Upper
Equal variances assumed	.043	.836	.497	68	.620	.714	1.436	-2.151	3.580

3.5 The Effect of Explicit Instruction of DMs on EFL Learners' Reading Comprehension

An independent-samples t-test comparing the mean scores for the reading comprehension post-test of the two groups was carried out after the intervention programme. Table 7 shows that the Levene sig. value was 0.00, which is more than 0.05 level of significance. This meant that the variances of the two groups could not be

assumed to be equal. The table also shows that there was a significant difference, in favour of the experimental group, between the scores for control group ($M = 16.03$, $SD = 4.90$) and the experimental group ($M = 20.83$, $SD = 2.68$; $t(40) = -7.05$, $p = .000$, two-tailed). The effect size was calculated to measure the magnitude of the differences between the two groups. Based on Cohen's (1988) guidelines, the effect size (mean difference = .866, 95% CI : -7.865 to -4.363) was very large ($\eta^2 = .422$).

Table 7. Independent-samples t-test of the means of the two groups on the reading post-test

	Levene's Test for Equality		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval	
								Lower	Upper
Equal variances not assumed	21.14	.000	-7.057	40	.000	-6.114	.866	-7.865	-4.363

Moreover, a paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores on the reading comprehension test. There was a statistically significant increase in reading comprehension test scores from Time 1 ($M = 15.5$, $SD = 3.8$) to Time 2 ($M = 20.8$, $SD = 2.6$), $t(34) = 11.73$, $p = 0.005$ (two-tailed). The mean increase in reading comprehension scores was -5.257 with a 95% confidence interval ranging from -6.167 to -4.347. The eta squared statistic (.80) indicated a large effect size. These results suggest that explicit instruction in DMs really can have a positive influence on EFL learners' reading comprehension ability.

Table 8. Paired-sample t-test for the experimental group on the reading pretest and post-test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval				
				Lower	Upper			
Exp. Group	-5.257	2.650	.448	-6.167	-4.347	-11.738	34	.000

Thus, the significant and positive results of the experimental group, compared to the control group, in the reading comprehension post-test can be attributed to the explicit instruction in DMs, which was only introduced to the experimental group during the eight-session intervention programme.

3.6 The Relationship between the EFL Learners' Recognition of DMs and Their Reading Comprehension Level

A correlation analysis was run to verify whether there was a relationship between students' level of knowledge of DMs and their performance in reading comprehension. The relationship between perceived knowledge of DMs (as measured by the DM test) and perceived reading comprehension ability (as measured by the reading comprehension test) was investigated using a Pearson correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. As Table 9 indicates, there was a strong positive correlation between the two variables, $r(68) = .68$, $n = 70$, $p = .0005$, with high levels of perceived knowledge of DMs associated with higher levels of perceived reading comprehension.

Table 9. Correlation between the reading comprehension test and the DMs test

		Reading	DMs
Reading	Pearson Correlation	1	.68**
	Sig. (2-tailed)		.000
	N	70	70
DMs	Pearson Correlation	.68**	1
	Sig. (2-tailed)	.000	
	N	70	70

4. Discussion

As noted by Al-Yaari et al. (2013) and Algouzi (2014), Saudi EFL learners' knowledge and use of DMs are

insufficient to support the development of their language skills, especially reading. Recurrent reports (e.g., Al-Mansour & Al-Shorman, 2011; Al Abik, 2014; Alsamadani, 2011) have shown that Saudi EFL learners perform poorly on reading comprehension tasks, indicating the necessity for improving their reading skills. Since these studies were generally descriptive in nature, the current study attempted to fill the gap by providing empirical data, particular to the Saudi EFL context, based on an intervention programme to familiarise Saudi EFL learners with the most frequently used DMs and develop their reading comprehension skills. This study hypothesised that explicit DM instruction can have a significant positive influence on Saudi EFL learners' reading comprehension and that there is a significant positive relationship between Saudi EFL learners' knowledge of DMs and their reading comprehension skills. To test these hypotheses, two forms of tests in both DMs and reading comprehension were developed and administered to two complete classes with a total of 70 Saudi male third-grade secondary students before and after the intervention programme. A correlation analysis was carried out to determine the relationship between learners' knowledge of DMs and their reading comprehension performance.

The first question in this study investigated the effectiveness of explicit DM instruction in improving the reading comprehension of Saudi EFL students. The first independent-samples t-test prior to the intervention showed no significant differences between the mean scores of the experimental and control groups on the reading comprehension test (see Table 4), whereas the second independent-samples t-test after the intervention indicated a significant improvement in learners' reading performance for the experimental group compared to that of the control group (see Table 7). The paired-sample t-test for the experimental group on the reading comprehension pretest and post-test revealed a significant improvement in reading performance after the intervention programme (see Table 8). The effect size was calculated and the result showed that 80 percent of the difference of variance between the groups in reading comprehension performance could be explained by the intervention effect. Thus, these results confirm that explicit instruction in DMs can actually improve EFL learners' reading comprehension abilities. This result supports the conclusions of Innajih (2007), Pérez and Macia (2002), Bahrami (1992), Akbarian (1998), and Degand et al. (1999) that knowledge of DMs can enhance EFL learners' performance in reading comprehension tasks and that they play an important role in developing EFL learners' reading skills.

The second question of the current study examined the relationship between learners' knowledge of DMs and their reading comprehension proficiency. The results of the correlation analysis (see Table 9) between the pretest results in DMs and reading comprehension as well as between their post-test results indicated a significant positive relationship between EFL learners' level of knowledge of DMs and their performance in the reading comprehension test. This suggests that EFL learners who are good at recognising DMs tend to perform better in reading comprehension tasks, whereas those who are poor at recognising DMs tend to perform poorly on reading tasks. This finding agrees with Sun (2013), Martinez (2009), and Khatib and Safari (2011), who assert that knowledge of DMs correlates highly with reading comprehension and that DMs are very helpful in facilitating both listening and reading comprehension.

Knowledge of DMs can simultaneously serve several communicative functions in different dimensions. It helps readers comprehend texts by signalling new information, elaboration, suggestions, warnings, and disagreements. DMs are also needed to create and maintain successful interactions between the reader and the text. Creating texts without DMs greatly inhibits comprehension and can cause major communicative breakdown (Britonm, 1990).

This study had a number of limitations; the most obvious was the small sample size, which prevented the generation of a clear, generalised statement about the role played by direct instruction of DMs in L2 reading classes. However, several scholars consider that a sample of at least 30 participants is sufficient for correlational research and comparative and experimental procedures (Dörnyei, 2007).

This study was further limited by the duration of the research, which was relatively short. Finally, the research findings of this study were limited by the quantitative nature of the research tools. Although the research tools that were used in the current study were very well established and served their purposes, the inclusion of other qualitative instruments would produce more comprehensive data and add strength to the generated results through data triangulation.

In light of the findings of the present study regarding the effect of explicit instruction in DMs on developing the reading comprehension skills of Saudi EFL learners, there are several pedagogical implications and recommendations. First, this study has established the effectiveness of explicit instruction in DMs that introduced DMs to learners and gave them proper opportunities to learn and practice during the course of the

programme. This approach needs to be encouraged and curriculum designers working with the Saudi Ministry of Education should consider developing knowledge and use of DMs from an early stage in current and future EFL textbook projects. Second, explicit instruction in DMs should be adopted and advocated as part of the agenda for pre-service and in-service teacher training in Saudi Arabia as a way of supporting and implementing activities that promote DM recognition, practice, and production. Third, it should be noted that the teaching of DMs is a gradual process needing time and practice, so instant success should not be expected. This is because EFL learners, especially in the Saudi EFL context, are not very familiar with DMs and how they can facilitate comprehension. There is also the issue of L1 interference, which can negatively influence the process of internalising English DMs. Much rests with EFL teachers' patience, hard work, and willingness to develop this important aspect of reading comprehension. Fourth, the high correlation between the recognition of DMs and reading comprehension on the test suggest that DMs are good indicators of EFL learners' understanding of texts. Therefore, DM activities (e.g., discourse cloze questions) can be incorporated to assess EFL learners' level of comprehension in textbooks and on reading comprehension tests.

Future research incorporating a similar design and a larger sample size would be of great value. Larger samples would make it possible to generalise the findings to an L2 population. Another area of possible research would be to examine the effect of explicit instruction in DMs at different proficiency levels. The benefit of looking across different proficiency levels would be the capturing of the reading comprehension progress rate and areas of development that might not be detected at one level of proficiency during a relatively short study span.

Future studies could be carried out to identify the reading skills most affected by DM instruction and to examine the relationship between DMs and the reading construct. Additional research that combines quantitative and qualitative methods is also needed. This would provide even richer data and potential for insight into the effect of DM instruction on reading comprehension.

References

- Aidinlou, N., & Shahrokhi, H. (2012). The effect of discourse markers instruction on EFL learners' writing. *World Journal of Education, 2*(2), 10-16.
- Akbarian, I. (1998). *The role of conjunctions in reading comprehension* (Unpublished MA thesis). Tehran, Iran: Allameh Tabatabai University.
- Al Abik, W. (2014). Assessment of reading comprehension of Saudi students majoring in English at Qassim University, Saudi Arabia. *Studies in Literature and Language, 9*(1), 155-162. Retrieved from <http://www.cscanada.net/index.php/sll/article/viewFile/5338/6264>
- Al-Mansour, N., & Al-Shorman, R. (2011). *The effect of teacher's storytelling aloud on the reading comprehension of Saudi elementary stage students*. Riyadh, Saudi Arabia: College of Languages and Translation, King Saud University. Retrieved from [http://faculty.ksu.edu.sa/al-mansour/Documents/Storytelling_ofelementary_students\[1\]-1.pdf](http://faculty.ksu.edu.sa/al-mansour/Documents/Storytelling_ofelementary_students[1]-1.pdf)
- Algouzi, S. (2014). *Discourse markers in native and non-native discourse: A comparative investigation into the use of English discourse markers by Saudi learners and native speakers*. 6th International Conference on Corpus Linguistics. Universidad de Las Palmas de Gran Canaria, Spain.
- Alsamadani, H. (2011). Saudi students' awareness of reading strategies and factors affecting their EFL reading comprehension. *British Journal of Arts and Social Sciences, 2*(2), 75-87. Retrieved from http://www.bjournal.co.uk/paper/BJASS_2_2/BJASS_02_02_01.pdf
- Al-Yaari, S., Al Hammadi, F., Alyami, S., & Almaflehi, N. (2013). Using English discourse markers (EDMs) by Saudi EFL learners: A descriptive approach. *International Journal of English Language Education, 1*(2), 1-26.
- Bahrami, A. (1992). *English discourse markers and their impact on the reading comprehension of Iranian students* (Unpublished MA thesis). Tehran, Iran: Allameh Tabatabai University.
- Birch, B. M. (2007). *English L2 reading: Getting to the bottom*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Britonm, L. J. (1996). *Pragmatic markers in English*. New York, NY: Mouton de Gruyter.
- Clarke, P. J., Truelove, E., Hulme, C., & Snowling, M. J. (2014). *Developing reading comprehension*. Chichester: John Wiley & Sons, Ltd.
- Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

- Degand, L., Lefèvre, N., & Bestgen, Y. (1999). *The impact of connectives and anaphoric expressions on expository discourse comprehension*. Retrieved from <http://www.springerlink.com/index/K4536732V16J6L51.pdf>
- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative and mixed methodologies*. Oxford: Oxford University Press.
- European Language Certificates. (2014). *What is telc?* Retrieved from <https://www.telc.net/en/decision-makers/what-is-telc.html>
- Garcia, G. (2003). The reading comprehension development and instruction of English language learners. In A. P. Sweet, & C. E. Snow (Eds.), *Rethinking reading comprehension* (pp. 30-38). New York, NY: Guilford Press.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7, 6-10.
- Hyland, K., & Tse, P. (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics*, 25(2), 156-177.
- Innajih, A. (2007). *The effect of conjunctive types on the English language reading comprehension of Libyan university students* (PhD thesis, Newcastle upon Tyne: Newcastle University). Retrieved from http://research.ncl.ac.uk/ARECLS/volume_4/INNAJIH.pdf
- Ismail, H. (2012). Discourse markers in political speeches: Forms and functions. *Journal of College of Education for Women*, 23(4), 1261-1278.
- Khatib, M., & Safari, M. (2011). Comprehension of discourse markers and reading comprehension. *English Language Teaching*, 4(3), 243-250.
- Kintsch, W., & Rawson, K. A. (2005). Comprehension. In M. J. S. C. Hulme (Ed.), *The science of reading: A handbook* (pp. 209-226). Malden, MA: Blackwell Publishing.
- Kucer, S. B., & Silva, C. (2006). *Teaching the dimensions of literacy*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Martínez, A. (2009). Empirical study of the effects of discourse markers on the reading comprehension of Spanish students of English as a foreign language. *International Journal of English Studies*, 9(2), 19-43.
- Pérez, M. A., & Macià, E. A. (2002). Metadiscourse in lecture comprehension: Does it really help foreign language learners? *Atlantis Journal*, 24(1), 3-21.
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21(4), 360-407.
- Sun, W. (2013). The importance of discourse markers in English learning and teaching. *Theory and Practice in Language Studies*, 3(11), 2136-2140.
- Swan, M. (2005). *Practical English usage*. Oxford: Oxford University Press.

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