

تأثير العناصر المتأخاطبية في الفهم القرائي لمتعلمي اللغة الإنجليزية كلغة أجنبية: منهج
المزج بين الطرائق

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The Impact of Metadiscourse on EFL Learners' Reading Comprehension: A Mixed Methods Approach

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المستخلص

لم تحظَ دراسةُ تأثير العناصر المتأخاطبية في الارتقاء بمستوى الفهم القرائي بما حظيت به تلك العناصر من عناية في مجالي الكتابة الأكاديمية وتحليل الخطاب؛ ومن هنا جاءت هذه الدراسة لتسليط الضوء على أثر توظيف العناصر المتأخاطبية في تنمية الفهم القرائي لدى الطلبة المشاركين طوعاً، ممن لم يخضعوا لتجربة تدخلية أو معالجة قصدية من شأنها أن ترفع مستوى وعيهم بتلك العناصر. واعتمدت الدراسة أداتين لجمع البيانات: تمثلت الأولى في إخضاع الطلبة المشاركين، البالغ عددهم (146) طالباً وطالبة، لاختبارين في الفهم القرائي، يفصل بينهما فاصلٌ زمني مدته ثلاثة أسابيع؛ وتمثلت الثانية في استطلاع آرائهم حول طبيعة النصين الواردين في الاختبارين، وذلك مباشرة عقب إكمال الاختبار الثاني، عبر تغذية راجعة كتابية. واتبعت الدراسة منهجاً مزجياً يجمع بين الطرائق الكمية والنوعية في جمع البيانات وتحليلها؛ فمن الناحية الكمية، احتُسبت درجات الطلبة في الاختبارين إحصائياً؛ ومن الناحية النوعية، خضعت الموضوعات

الرئيسية والفرعية المستخلصة من التغذية الراجعة الكتابية للتحليل والمناقشة. وأظهرت النتائج أن مجرد توظيف العناصر المتأخاطبية بالشكل الملائم في النصوص أسهم في تعزيز الفهم القرائي لدى الطلبة، إذ ارتفعت درجاتهم في اختبار النص المتضمن لعناصر المتأخاطب، فضلاً عما تضمنته التغذية الراجعة الكتابية من مواقف إيجابية إزاء أثر تلك العناصر في مقروئية النص. وختاماً، تؤكد الدراسة ضرورة إبراز دور العناصر المتأخاطبية، ولا سيما التنظيمية منها، وإيلائها ما تستحقه من عناية، وتخصيص حيز زمني ملائم لها ضمن مناهج تعليم اللغة الإنجليزية لغة أجنبية.

Abstract

Examining the effect of Metadiscourse on promoting reading comprehension has been given little attention in comparison with the abundant treatment of metadiscourse in academic writing and discourse analysis. This paper highlights the impact of metadiscourse usage on advancing the reading comprehension of the participants who did not undergo any interventional experiment and had no intentional treatment to raising their awareness of metadiscourse. The study has administered two instrumental tools for data collection. First, two reading comprehension tests were given to a number of volunteering students (no=146) within a three-week period of interval. Second, the volunteers were asked about their feedback and reflection on the nature of the two reading comprehension texts directly after sitting the second test. A mixed-methods approach has been conducted for data collection and analysis. Quantitatively, reading comprehension test scores were measured statistically. Qualitatively, major themes and sub-themes have been inferred and thematically analyzed and discussed. Findings emphasized that the proper presence of metadiscourse in texts has positively resulted in both higher scoring in reading comprehension tests and positive feedback on their text readability. In conclusion, interactive metadiscourse, in particular, should be recognized, emphasized, and given time and space, especially in EFL curriculums, for teaching and learning objectives.

1. Introduction

Research interest in metadiscourse (henceforth MD) has been upsurged since 2005, especially in written discourse, for MD has been captured as a rhetorical device in discourse, written and spoken, to achieve higher levels of interaction between writers/speakers and readers/listeners. MD has been examined in writing genres more than any other types (Alghazo et al., 2023). More interestingly, no mention whatsoever has been marked on the impact of MD on reading comprehension (henceforth RC) in the



most recent bibliometric reviews on MD research since 1979 up until now (Hyland et al., 2022; Hyland & Jiang, 2024; Li & Xu, 2024; Yanfei et al., 2025). Most of the studies on MD were revolving around the impact of MD on academic writing such as ESL/EFL undergraduate and postgraduate writing, research articles and essays, reports, book reviews and textbooks, dissertations, argumentations, rhetoric, discourse analysis, etc. (Hyland & Jiang, 2024; Li & Xu, 2024; Song et al., 2024; Yanfei et al., 2025). Hyland (2019), however, has pointed out that MD is “an increasingly important concept in research in composition, **reading**, rhetoric and text structure” (p. 5, emphasis added). In addition, Hyland et al. (2022) also emphasize MD’s rising interest in research for its importance in applied linguistics as a tool of discourse analysis, stating that MD is “a concept which has found its time” (p. 1). Interestingly, only one reference to a study on the importance of MD on RC has been mentioned by Hyland (2019) saying, “**it [MD] is said to contribute to effective comprehension**” by which he refers to a study done by Camiciottoli in 2003, cited in (Hyland, 2019, p. 5, emphasis added). Likewise, the influence of MD on promoting EFL RC though, in progress, is only recently witnessed an interest in teaching and learning pedagogy especially experimentally; it is rare to find research on the impact of MD on RC as expressed by Jalilifar and Alipour (2007, p. 38). This scarcity of studies on the correlation between MD and RC has also been noted by Chen, Krish, and Velarde (2023) who did touch upon few examples of those studies. In addition, Al-Hussein (2019) has examined a myriad of studies which mainly focused on the effect of MD on improving EFL academic writing, and noticed rather few studies on its influence on EFL learners’ RC. In this study, however, the impact of MD on the EFL learners’ RC at the tertiary level is addressed without administering any intervention course, to see how effective is the merely presence/absence of MD in texts on the EFL students’ RC scores and feedback. To perform triangulation, a mixed-methods approach has been employed for data collection and analysis to provide answers to the following two major research questions:

Q1. To what extent does interactive MD presence or absence affect the participants’ RC scoring?

Q2. How do the participants perceive the effect of interactive MD presence or absence on their RC tests even without taking any intervention course on MD?

2. Literature Review

2.1. Metadiscourse: Definitions

This paper adopts Hyland's (2005, 2019) interpersonal model and definition of MD for its comprehensiveness, as it includes, as I claim, all features of MD in other writers' definitions and the reverse is not necessarily true as will be explained across this section. Hyland (2019) defines MD as "the cover term for the self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community" (pp.43-44). The key-term in this definition is 'self-reflective expressions' which indicates that Hyland regards all ten sub-categories of MD as being subsumed in his 'interpersonal model' (Hyland, 2019, pp. 57-58; Hyland & Jiang 2024, pp.4-5). His definition and model are based on the idea that all examples of MD are interpersonal, in the sense that both major categories (interactive and interactional), at the level of text organization or writer-reader engagement, are meant to have writers interacting with readers either explicitly or implicitly. This definition precisely covers all included possible MD markers on the interactive and interactional planes of Hyland's classifications which always involve an intention of communication between writers and readers.

Even before Hyland, in a couple of decades, Crismore (1983) was clearly aware that the major function of using MD is directing readers towards content, structure and stance, i.e. the major goal of MD usage is engaging with readers about proposition. She (1983, p. 6) points out that MD refers to "the author's intrusion into the discourse, either explicitly or non-explicitly, to direct the reader rather than inform," i.e. MD assists readers to better comprehend discourse and its author. Similarly, following the Hallidayan functional approach to the three macro-functions of language, Vande Kopple (1985, p. 83) centers his definition of MD on the distinction between MD and proposition; he generally regards MD as the linguistic elements that "do not add propositional material but help our readers organize, classify, interpret, evaluate, and react to such material. MD, therefore, is discourse about discourse or communication about communication." In addition, Vande Kopple (2012, pp.37-38) also figures out that language users in general use MD "to interact with their audience, and to organize their expressions into cohesive discourses that their addressees can make coherent sense of." In other words, MD is a linguistic device used in discourse but is distinguished from the content or the information, i.e. proposition, and it is substantial in how proposition is organized and connected, and how it should be taken by readers/listeners to facilitate the process of interaction between interactants (Yanfei et al., 2025, pp. 908-909; Putri et al., 2023, p. 89).



This awareness of addressing readers by writers through MD emphasizes the ‘interpersonal’ model developed by Hyland and Tse’s paper in (2004) and more maturely in Hyland’s book in (2005, 2019). In his book, Hyland has built a well-structured model of MD with extensive background discussions, criticisms, analyses, comparisons, contrasts, classifications, and applications of his own mature and developed model.

Other writers such as Mauranen (1993, 2023), Adel (2006, 2018), and Adel and Mauranen (2010) adopt the reflexive model of MD. Mauranen (2023, p. 5), for instance, affirmingly points out that “my approach to metadiscourse is reflexive, as it has been from the start (Mauranen 1993a),” she also, like other writers, considers that MD is “discourse about the ongoing discourse” and by this statement she refers to what she calls “discourse reflexivity” (Mauranen, 2023, p. 5). Mauranen (2023, p. 8) also points out that “there is a meta-level of communication, a reflexive possibility in human discourse that enables us to indicate how we intend our interlocutors to take what we are saying and how it relates to what they are saying.” Both terms, ‘metatext’ used in 1993 and ‘metadiscourse’ used in 2023 by Mauranen highlight reflexivity in its broader sense, i.e. they both subsume reflexivity of language about language, discourse about discourse and also of writer-reader interaction about discourse and attitudes. By the same token, Adel (2006, p. 2) also discerns that “one type of reflexivity in language is ‘metadiscourse’,” meaning that in addition to the ability of using the language to talk about any topic, language is also used to talk about itself. She defines MD as:

Discourse about the evolving discourse, or the writer’s explicit commentary on her own ongoing text. In this sense, it includes reflexive linguistic items that refer to the text itself as text or as language. In a wider sense, it refers to linguistic items which reveal the writer’s and reader’s (or speaker’s and hearer’s) presence in the text, either by referring to the organization of the text or by commenting on the text in other ways. (Adel, 2006, p. 2)

Reading Adel’s definition above, one can obviously note that one function of language is reflexivity, i.e. MD can comment and reflect on discourse itself, and the other part of MD interacts with readers about discourse, writer’s, and readers’ beliefs and attitudes, for example (also see Hyland, 2024, p. 3).

MD, according to Mauranen (2023, p. 13), is one block in discourse structure which with many other blocks, if designed and worked out appropriately, build the whole discourse construction and achieved the intended purposes of communication. Proper communication is then looked upon as a contract between writers/speakers and readers/listeners.

Mauranen is fully aware that one of the major uses of MD is to facilitate the task of communication for both discourse producers and receivers all through the process of initiating and consuming discourse. She (2023, p. 13) points out that “its [MD] unique qualities are fascinating, but it is important to bear in mind that it combines with a myriad of other cues that mediate writer-reader interaction.” This also advocates what Hyland has stipulated about the idea that both categories of MD are interactional. MD, therefore, depicts the communicative relation between interactants through discourse, be it written or spoken. It refers to the “interactions between text producers and their texts and between text producers and users” (Hyland, 2019, p. 1). In other words, MD markers are those “expressions which refer to the text producer, the imagined receiver and the evolving text itself”, they are considered as “aspects of a text which explicitly organize a discourse or the writer’s stance towards either its content or the reader” (Hyland, 2019, p. 16). This orientation of writer’s creation and intention of text towards readers (writer-text-reader) could be reversed into reader recreation of meanings in text and moving backwards to writers (reader-text-writer) in the process of RC.

2.2. Metadiscourse and Reading Comprehension

This paper focuses on how far some types of metadiscoursal items, especially interactive MD, are positively effective on students’ RC without conducting any intervention on MD. This reflects the importance of the natural linguistic role of MD in texts for building cohesion and coherence. Organizing sentences into cohesive language structures necessarily results in organizing ideas into coherent propositions in discourse, for interactive MD markers are “both cohesive and pragmatic” (Hyland & Jiang, 2020, p. 2). MD items are not merely decorating language structure in discourse; rather, they are essential for assisting writers in guiding and addressing their readers throughout the process of discourse construction. Whatever important techniques are used in written discourse, they are equally important for reading due to the strong correlation between writing and reading since all that is written intended to be read; the same also holds true with speaking and listening. MD for readers can function “as an important means of facilitating communication, supporting a position, increasing readability and building a relationship with an audience” (Hyland, 2019, p. 6).

Writers are communicating with readers not only through propositions, but also by how they handle MD items as signposts for guiding the reading tour across discourse. This signposting technique indicates how writers are aware of and anticipating their readers’ requirements for cohesion, coherence, and guidance. Put another way, “drawing attention



to the text represents a writer's goals relative to an assessment of the readers' need for guidance or elaboration" (Hyland, 2019, p. 20). This explicitly refers to the necessity of using MD to interact with readers and facilitate the process of comprehension. Anticipating what readers might need to understand, or ask for clarifications or examples and respond appropriately through MD usage makes the task of RC lighter to process. The more precise MD writers are using, the better guidance readers are receiving throughout the unfolding text. Reitbauer (2001, p. 206) puts it as follows, "if MD is seen as a means of reducing the cognitive load of propositional material, it seems logical to assume that its use [is] to enhance comprehension." MD in the view of Ifantidou (2005, cited in Yanfei et al., 2025, p. 910), who examines it from the perspective of relevancy theory, also has a "cognitive role" that "can help reduce readers' processing workload and improve their comprehension ability." In other words, "metadiscourse is what we find speakers use, and insofar as it facilitates listener processing [,] this means it helps them predict" (Mauranen, 2023, p. 15). The same holds true in both writing and reading, i.e., the proper use of MD in writing and reading or speaking and listening is to ease up the process of comprehension for better communication. That is, the more coherent and less ambiguous writers can skillfully employ their linguistic tools in discourse, the more understandable and less exhaustive their readers become for a better processing of RC.

MD is as equally important for writers as it is for readers because they both share the same material for communication, so they need to agree on what means of communication are used and how to achieve the ultimate level of communication by way of encoding and decoding. MD, then, is a language choice in the hands of writers to use for lightening the complicated processes of comprehension, creating cohesion, aiding coherence, guiding both writers and readers throughout the wide and narrow lanes of discourse, and helping readers decode the writers' intentions whenever a MD item is used (Hyland, 2019, pp. 217-218, 237). It is not used for stylistic decoration (Reitbauer, 2001, p. 200), rather, it is "a stylistic variable--some authors use much, some use little" (Crismore, 1983, p. 15) as clarity and intentions require. It can also support the "global comprehension" of the text and "promote critical thinking" in readers through their interaction with the text and its writer (Camiciotolli, 2003, p. 29). This particular kind of interaction and communication can happen when readers become well aware of MD implications, and when writers are mastering MD. After all, MD markers can assist in explaining messages and persuading readers of the propositions; they are used

intentionally to convey intended meanings effectively after expecting readers' needs, and they can also influence readers' perception of content and create a positive tie with them.

Crismore (1983), as well, points out that as writers anticipate their readers' needs, readers themselves can also anticipate what writers are attempting to articulate:

Both informational and attitudinal types of *metadiscourse* are, *1 believe, important to the field of reading*. They help to create a mental set of anticipation for the reader-the reader anticipates content, goals, text structure and organization, topic, shifts, and author perspective on the content, certainty of propositions and the text form. (p. 62, italics added)

In fact, both categories of MD, interactive and interactional, are crucial for RC. However, the former is more relevant to text organization requirements for cohesion and coherence to lessen the workload of readers' cognitive processes for comprehension. This category of MD in all classifications of whatever title is given to it, 'informational', 'textual', 'metatext', or 'interactive' MD "can reconstruct the organizing structure of the talk, identify the logical linkage of contents thus processing the flow of information more easily and can also activate those conceptual schemas involved in communication" (Pérez-Llantada, 2003, p. 4). Put another way, 'interactive' MD as postulated by Hyland (2019, p. 57) "addresses ways of organizing discourse, rather than experience, and reveals the extent to which the text is constructed with the readers' needs in mind." The other category, 'interactional' MD, is "essentially evaluative and engaging, expressing solidarity, anticipating objections and responding to an imagined dialogue with others. It reveals the extent to which the writer works to jointly construct the text with readers." They are also essential for easing up comprehension but on the level of how writers directly interact with readers showing their attitudes, certainty, and engagement toward themselves, text, and readers. The use of MD in both categories signals the presence of the author and their awareness of communication with readers whether at the text organization-level or at the social interaction level respectively (Reitbauer, 2001, p.200). In their study, Tavakoli et al. (2010, p. 96) find out that 'textual' MD gives better results than 'interpersonal' MD in RC tests. Therefore, they conclude that even the explicit instruction of both textual and interpersonal MD improves students' RC, textual MD is more effective than interpersonal MD, as it is also ascertained in here.

Having discussed the value of MD, Hyland (2019, p. 24) rejects the claim that "metadiscourse can be omitted from a text without changing its meaning." This rejection certainly proves to be true in this study. The



study, assuredly, confirms that the omission of MD negatively affects the participants' comprehension of the doctored texts; such an omission causes unclarity, ambiguity, confusion, distraction, discomfort and difficulty to grasp the intended meaning, in addition to many other features extracted from the participants themselves. By contrast, the participants understood the original texts with MD (+MD) better and gave positive feedback (see 3.4 and 3.5). MD presence, then, could either affect how meaning should be taken, or at least it facilitates the grasping task by alleviating the cognitive processing load of comprehension especially in EFL educational contexts. The texts that use more MD appropriately can have "highly structured rhetorical patterns which seem to be more facilitative recall for non-native readers in general" in addition to its being regarded as "one criterion for reducing processing difficulties" (Reitbauer, 2001, p. 209). It has also been attested that the use of MD, its awareness, and instruction for non-native learners of language are more appreciative in helping learners to cope with difficult texts especially argumentative patterns of texts (see Al-Hussein, 2019). In other words, MD should be given extra emphasis and consideration in EFL instruction contexts for its guiding role to comprehension, interpretation, and communication (Camiciotolli, 2003, p. 29).

3. Methodology

3.1. Participants and Setting

This paper examined Iraqi EFL volunteering third-year students (n=146 out of 459) at the University of Basrah, College of Arts, Department of English. (76) participants out of (306) in the morning classes, and (70) participants out of (153) in the evening classes partook to do the two RC tests. These students had been studying RC at the first and second years. Their English proficiency level could be described as pre-intermediate to intermediate, as the tests were administered at the beginning of the first semester of the third-year class. During these years of studying RC and writing, they were not studying or exposed to MD in particular. Rather, they were generally, indirectly, and unintentionally exposed to certain types of transitional words and phrases which have different labels across textbooks, such as 'cohesive devices', 'transitions', 'transitional words' or 'discourse markers.'

3.2. Data Collection

Without having any earlier interventional experiment on MD, the participants were sitting two RC tests with three weeks interruption period in between to ensure that the only variable to test is the effect of the presence and absence of MD in the same RC texts on the participants' RC answers. Each session-test was given a fifty-minute time allocation at

the maximum. The RC test has four short reading passages chosen carefully to fit the students' level of vocabulary with few difficult words translated to Arabic to make sure that the meaning of such words has no effect on the global understanding of the texts, or at least it does not hamper students' comprehension further. The first RC test has four original passages including MD with 15 RC open-ended questions, whereas the second RC test is exactly the same as the first except for deleting most of the MD items. Few deletions of MD required syntactic treatments to read properly. Then, directly after doing the second RC test, the students were given two open-ended questions in Arabic (see 3.5) asking for their opinions, feelings, preferences and reflections on the two versions of the RC texts. Students were required to answer these two questions in Arabic to ensure that they understood the two questions precisely and answer them relevantly, more freely, and easily. Both of the RC and feedback questions provide quantitative and qualitative data collection for discussion and analysis.

3.3. Method

This study is designed to have a mixed-methods approach to data collection and analysis. Such an approach is pragmatically instigated, for: A pragmatist approach argues that qualitative and quantitative methods can be combined and, moreover, that they should be combined. Quantitative methods provide breadth, and qualitative methods provide depth ... Together, they can make social science more robust, insightful, and emancipatory. (Gillespie et al., 2024, p. xi)

What is interesting about mixing the two methods is not only getting a summation of the two, rather, something added should show off too (Gillespie et al., 2024, p. 117). The mixed-methods design of the data analysis followed in this paper is 'simultaneous', in the sense that both quantitative and qualitative data analysis have been 'separately' processed, i.e. "each analysis is conducted separately, and then the findings are compared ... to enable either validation or enrichment" (Gillespie et al., 2024, p. 124). This design is also called 'parallel or concurrent design' (Mertens, 2024, p. 308) or 'convergent design' (Creswell & Plano Clark, 2011, pp. 215-217; Creswell & Creswell, 2023, pp. 258-259).

4. Quantitative Data Analysis and Discussion

This section sheds light on the descriptive and inferential statistics of the two RC test results. The same participants (MCPs & ECPs) were tested twice with an interval of three weeks period on the same RC texts with and without MD. To measure whether the mean scores of the two RC tests have real statistical significance, a paired, correlated, or dependent t-



test is conducted where the same participants are tested in different occasions for an independent variable (Ho, 2018, pp. 217, 224; Pallant, 2020, p. 251).

Another interesting relevant outcome was discovered during the assessment of test results; it was the RC points the participants left out unanswered (LoPs). A mean score test was also measured for the (LoPs) in the two RC tests. These statistical tests apply to both MCPs (n=76) and ECPs (n=70).

Table 1 below shows a comparison and contrast between the mean score of the RC test carried out by the same participants in two occasions. The paired t-test shows statistical significance at ($p < 0.05$), meaning that the same participants (MCPs) did better RC when MD is used in passages. They achieved mean score (9.3947) out of (15), whereas they themselves achieved mean score (4.3092) out of (15) the second time after three weeks of interval and when RC texts were emptied of MD. This can also be graphically viewed in figure 1 below.

Table 1. Paired t-test for MCPs on RC Test

	Mean	N	Std. Deviation	Std. Error	Sig
Pair Mean score of RC test (+MD) out of 15 marks	9.3947	76	2.69730	.30940	0.000
Mean score of RC test (-MD) out of 15 marks	4.3092	76	1.98992	.22826	

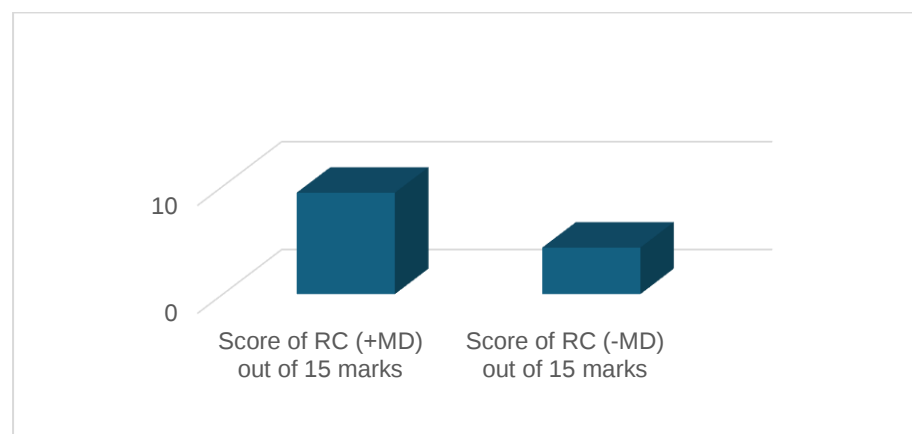


Figure 1. Mean Score of RC Test for MCPs

The same RC test was also conducted on the ECPs (n=70). Statistical significance was also achieved at ($p < 0.05$) as shown in table 2 below, where mean score (8.0357) was obtained for the first test with the presence of MD (+MD), and (4.9286) in the second RC test that excludes

MD (-MD). Figure 2 below also shows the visual difference between the mean scores.

Table 2. *Paired t-test for ECPs on RC Test*

	Mean	N	Std. Deviation	Std. Error Mean	Sig.
Pair 1 Mean Score of RC test (+MD) out of 15	8.0357	70	2.83140	.000	0.000
Mean Score of RC test (-MD) out of 15	4.9286	70	2.34565	.28036	

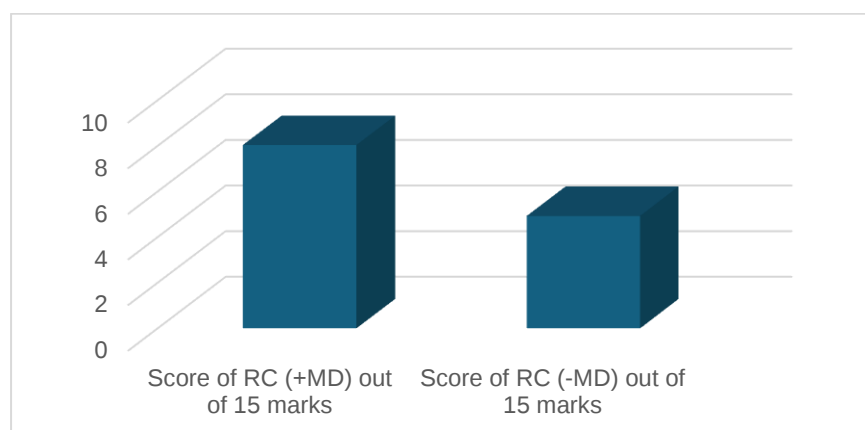


Figure 2. *Mean Score of RC Test for ECPs*

Interestingly, another significant point has been shown up during the process of assessment and analysis. This point is relevant to the number of RC questions (n=15) that had been left out without answers. Examining table (3) below, there is a statistical significance regarding the LoPs of RC test 1 whose mean score is very low (0.95 out of 15) when compared to LoPs of RC test 2 whose mean score is relatively high (6.39 out of 15). This difference is ascribed to the difficulty of answering the second RC test due to the absence of MD, which led students to leave out some questions unanswered, in comparison to their ability to attempt almost all the questions in version 1 test because of the presence of MD which helps them understand better. This can crystally be reflected in figure 3 below.



The Impact of Metadiscourse on EFL Learners' Reading Comprehension: A Mixed Methods Approach

Table 3. *Paired t-test of LoPs for MCPs*

	Mean	N	Std. Deviation	Std. Error Mean	Sig.
Pair 1: Mean Score of Left out Points (LoPs/+MD) out of 15	.95	76	1.607	.184	0.000
Mean Score of Left out Points (LoPs/-MD) out of 15	6.39	76	2.572	.295	

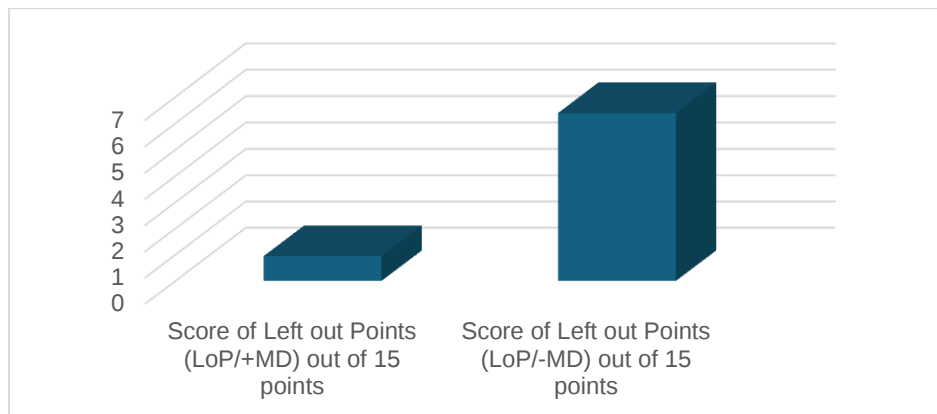


Figure 3. *LoPs for MCPs*

The same holds true for the LoPs differences between the first and second RC tests for the ECPs with different but still statistically significant mean scores (see Table 4 and Figure 3 below).

Table 4. *Paired t-test of LoPs for ECPs*

	Mean	N	Std. Deviation	Std. Error Mean	Sig.
Pair 1: Mean Score of Left out Points (LoP/+MD) out of 15	1.69	70	2.288	.273	0.000
Mean Score of Left out Points (LoP/-MD) out of 15	4.86	70	2.916	.348	

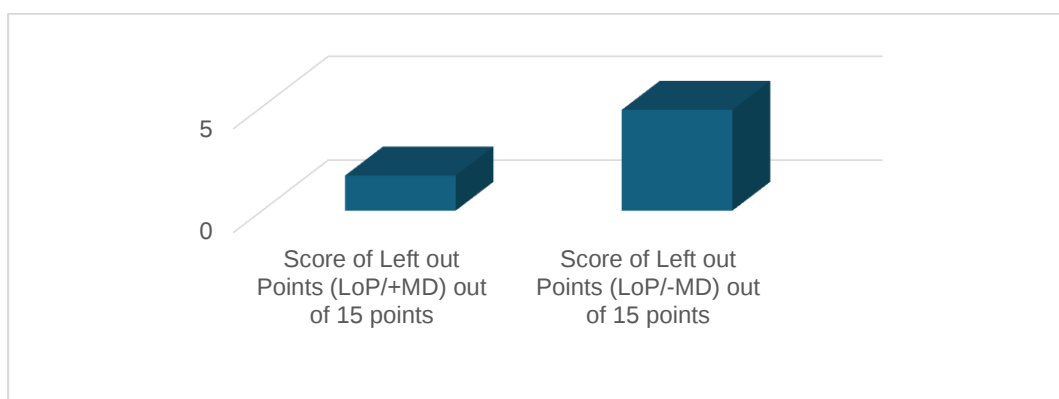


Figure 4. *LoPs for ECPs*

To sum up, there is statistical significance at ($p < 0.05$) not only for RC tests, but also for the LoPs for both MCPs and ECPs. This, undoubtedly, indicates how impactful MD presence is to boost students' RC and help them attempt almost all questions, and the contrary is also true.

5. Qualitative Data Analysis and Discussion

In this study, qualitative data have been analysed thematically following the exploratory approach where "the researcher carefully reads and rereads the data, looking for key words, trends, themes, or ideas in the data that will help outline the analysis, before any analysis takes place" (Guest et al., 2012, p. 6). Data have been collected from the participants who did both tests ($n=146$). They were asked the following two open-ended questions after finishing the second test to have them openly express their feedback on the two tests.

Q1. What differences do you notice between Type1 and Type2 texts, and how do you feel about each of them?

Q2. What type of texts do you prefer and why?

The participants' answers to the questions above have been translated and read many times for coding and thematizing. Three major themes are deduced. The students were found to prefer type1 passages (+MD) over the other (-MD). Only (8) participants out of (146) observed no or slight differences between the two types; this might be ascribed to their low marks on both RC tests, i.e. they might not be affected by both types, mostly due to their low language proficiency level. However, all other 138 participants were outstandingly preferring type1 texts over type2 mainly because of the presence of MD, as they clearly overstated below. One final note is worth mentioning about the students' comments is that in many cases we might find overlapping references to many features at once. This overlapping could be used as evidence for a number of the themes and sub-themes as you will notice, however, I will classify them according to the prominent features expressed in the students' answers.

5.1. Clarity vs Ambiguity and Difficulty



Many examples are articulated by the participants referring to how clearly, they perceive type1 texts (+MD) and encounter ambiguity and therefore struggle with type2 texts (-MD). I will only refer to just a few samples reflecting students' feedback, and there is no need to repeat similar content over and over. The students noticeably recognized that the differences between the texts are only marked by the presence and absence of some 'tiny', 'signal words and phrases', 'referential words', 'starters', 'complementary words', 'key words', 'transitional words', and 'transition signals' as some of them referred to, and many others simply called them 'words.' These linguistic devices, in the end, are practically useful and participate significantly in dispelling ambiguity and targeting strategies and techniques for better comprehension and communication (Gordon, 2023, p. 6; Reitbauer, 2001; Mauranen, 2023).

MCP67: there is a huge difference between these two types of texts. I prefer type1 texts because they have "signal words and phrases" which make sentences clearer, meaningful and complete.

MCP31: what I noticed is that writers of type2 texts did not give readers any addition, reason or results, whereas in type1 texts they provided words and phrases for clarity, connection, reason, and results such as (for example, because, as a result, in addition, therefore). These additions helped me a lot in understanding the texts and therefore answering the questions.

MCP16: using words like (for example, in addition, first of all, and second) made texts clear, understandable, cohesive and coherent.

MCP41: type1 texts provide connectors that help students identify causes, effects, and examples, therefore we can better understand these texts and easily recognize where to find answers.

ECP36: I faced difficulty in answering type2 test, actually, I felt shocked because I could not answer any question! On the contrary, I felt that type1 questions were answerable and clear.

Disambiguating texts is seen as one prominent task writers should care for. Ädel (2006, p. 166), for instance, believes that "the metalinguistic function is used a great deal by 'considerate authors', who see it as their duty to give their readers guidance throughout the process of reading." This points out that MD markers are used for "solving comprehension problems, or solving discourse ambiguities" (Ädel, 2006, p. 166).

5.1.1. Obvious vs Hidden Meaning

Some other participants' answers were also relevant to clarity and its opposition; this time they opinionated that in different terms. Take for example:

ECP11: all what had been hidden in type2 texts were disclosed in type1 because of using connectors, such as (for example, as a result, etc.).

ECP6: in type2 texts there are 'hidden explanations and implications' about ideas. Sentences were disconnected. These hidden and implied ideas were so clarified in type1 to the extent that they became 'enjoyable' to read and helped to answer the questions.

The obvious use of MD or call it "explicit connectives" can alleviate the cognitive processing load and therefore "enhance comprehension, although different readers may be affected differently by the same connectives" (Vande Kopple & Allen, 1988/2008, p. 245).

5.1.2. Complete vs Incomplete Sentences

Going further in participants' perception, they, erroneously, consider sentences in type2 texts as incomplete. They thought that there was 'something wrong' with these sentences because they could not grasp meaning.

ECP44: reading type2 texts, I felt of ambiguity and that there was something wrong with them, however, this ambiguity vanished in reading type1 because of using connectors such as (as a result, in addition, even, however, for example, moreover, but, etc.). These additions ... made texts complete.

ECP51: I believe that type1 texts are better because they include complete, understandable sentences, and all successful elements such as connectors.

ECP22: I think that type2 texts are incomplete, unsupportive ... and unattractive to readers.

Another significant observation, pointed out by some participants, mostly indirectly but sometimes referred to straightaway, is how effective are MD markers on their attempting to answer all the RC questions (see 3.4).

MCP47: type1 texts are perfect, complete and so clear because of the additions (on the other hand, for example, however, in addition, as a result), that is why I left out more points in type2 than in type1.

ECP72: ... When I read texts in type2, I felt that something is missing and strange, but when reading type1, everything was alright 'as if I was reading new texts' and therefore meaning was clear and I could answer all the RC questions.

This evidently shows how students themselves noticed the importance of MD presence on their understanding in addition to many other observations they jotted down throughout the section.

5.1.3. Guidance vs Confusion and Distraction

MD markers are those linguistic devices whose presence offer signposts and guidance to readers and boost comprehension, as they are "generally



conceptualized as the writer facilitating the reader's task: helping, assisting, guiding the reader" (Mauranen, 2023, p. 18). Their absence, however, would confuse and distract readers.

ECP67: type2 texts are empty of any 'guiding words', unlike type1 which include 'key words' for connecting ideas and making reading easy and clear.

MCP26: using words such as (as a result, even, in addition, therefore, however, ...etc.) makes texts stronger and more understandable. These words help students comprehend texts better. They also help students know the boundaries of the sentences, i.e. where they end and where new sentences begin.

Some other participants refer to such guidance in terms of 'organization' or 'coherence and cohesion' by which they can easily move through the text with more clarity, for "without these options [of MD], writers would be able to form only lists of sentences, not cohesive texts, and they would not be able to express ideational and interpersonal meanings well" (Vande Kopple & Allen, 1988/2008, p. 243; Crismore, 1983, p. 12).

MCP16: using words like (for example, in addition, first of all, and second) made texts clearer, understandable, arranged, and cohesive and coherent.

5.2. Readability: Smooth vs Interrupted Reading

In addition to clarity and other relevant features explicated above, and following their intuition, the participants also noticed other key characteristics of reading impacted by the presence/absence of MD. They observed how their reading changed from being smooth and flowing to interrupted and halted while moving from type1 to type2 texts respectively; this characteristic has also been hinted at by Hyland (2019, p. 6) when he emphasizes that MD boosts 'readability.'

MCP67: ... They [MD] also help me read without interruptions of ideas.

ECP63: I believe that type2 texts are 'not flexible' and 'dry' for reading. Sentences in this type are not connected because of the absence of connectors, and this makes their reading 'undesirable' and makes it 'hard' to understand and 'extract' the right information from the text to answer the RC questions.

ECP30: type2 texts were 'weak' and did not clarify ideas, whereas type1 texts were stronger because of the 'connecting and starting words'... which attract the attention of readers to go on reading easily.

The terms, 'dry', 'hard' or 'difficult', 'undesirable', 'weak', and 'not flexible', mentioned by the participants are also alluded to by Hyland (2019) when he confirms that "removing these metadiscourse features

would make the passage much less personal, less interesting and less easy to follow” or it transforms texts into “dry or difficult” (p. 4).

5.2.1. Comfort vs Stress and Upset Feeling

One other way of describing the feature of facilitating the smoothness of reading against interruptions and halts also expressed differently by the participants when they articulate their feelings towards these two types of texts. They expressed their feelings of relief towards reading type1 texts and their opposite feelings while reading type2. This reflection has also been emphasized by Hyland (2019, p. 218) when stating that MD “relieves the reader’s processing load by highlighting important points, indicating direction, anticipating structure, linking sections and ideas.” An array of feelings is abundantly repeated among the participants’ answers.

MCP15: type2 texts made me feel confused, stressed, and upset because of the absence of some words ... On the contrary, texts in type1 made me feel comfortable in reading ... This test made me recognize the importance of using such words more than before.

MCP46: reading type2 texts, I felt that there was a mistake somewhere, but then I recognized how effective are those ‘tiny’ additions on the general meaning and understanding; I felt more comfortable and understood the value of these additions in organizing sentences and removing ambiguity.

ECP73: type1 texts ... positively affected my confidence in answering the RC questions.

ECP14: sentences in type2 texts are separated, disconnected, and difficult to understand; they made me feel ‘upset and distracted’ to the extent that I could not answer the RC questions. By contrast, reading type1 sentences is more comfortable, connected, easier and quicker to understand and find answers.

5.2.2. Effort and Time Saving vs Effort and Time Consuming.

All above points related to the participants’ impressions, feelings, observations, and notes about the differences between types1 and 2 texts regarding clarity, readability, obviousness, completeness, comfort, and guidance in opposition to their counterparts’ characteristics boil down to this last feature of time and effort saving versus their opposition. This theme is reiterated extensively throughout the participants’ answers.

MCP43: type2 texts are ambiguous, unclear, and difficult to understand except when you try hard to read them with more effort, time, and concentration.

MCP59: I liked type1 texts because they helped me find answers quickly without exerting more effort.





MCP60: type1 texts save more time and deduction for me than type2 because of the additional words.

In conclusion, MD helps lessen and relieve the processing effort done by readers to “better understand the cognitive demands that texts make on readers and the ways writers can assist them to process information” (Hyland, 2019, p. 217).

6. Limitations

The study has employed interactive MD markers only, especially transitions, for this type of MD is highly relevant to “help readers interpret pragmatic connections between steps in an argument. They signal additive, causative and contrastive relations in the writer’s thinking, expressing relationships between stretches of discourse” (Hyland, 2019, p. 59). It does not address the effect of interactional MD; whether or not its presence or absence can have an effect on the readers’ comprehension. Therefore, the study does not represent comprehensive evidence on the influence of all types of MD, interactive and interactional, on the RC of the EFL students at the tertiary level.

7. Conclusions and Recommendations

This paper offers evidence that interactive MD, especially transitions, have significantly impacted the participants’ RC, both quantitatively and qualitatively, even without involving them in any intervention course on MD. Quantitatively, the participants achieved: 1. higher scores in the type1 RC test (+MD), and 2. the least of LoPs due to the presence of (+MD), and the reverse is also true with type2 test (-MD). Qualitatively, they expressed their positive feedback, regarding the two open-ended questions about their opinions, feelings, preferences, and observations, in favor of the type1 texts (+MD), and their negative feedback on the type2 texts (-MD). Hence, the more aware and knowledgeable readers of MD are, the better comprehension they achieve.

MD, then, “deserves a prominent place in second-language instruction” (Vande Kopple, 2012, p. 42), and it is “worthy of attention from reading educators, publishers, [and] researchers” (Crismore, 1983, p. 63), for “without metadiscourse[,] readers would be unable to contextualize a text and writers unable to communicate effectively” (Hyland, 2019, p. 16). Mastering MD, after all, is not only influential in RC and writing, but it is also essential in teachers’ discourse in lecturing to have students get more comprehension and involvement (Rababah et al., 2024, pp. 123-124). Therefore, MD is highly recommended, especially for EFL educational contexts, to be included in syllabi for both teachers and learners. Educators in EFL pedagogy should also allot specific segments of the syllabus to teaching MD in both of its two major resources to enable EFL



learners be more efficient in comprehending the four major skills of language learning and communication: reading, writing, listening and speaking.

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The Impact of Metadiscourse on EFL Learners' Reading Comprehension: A Mixed Methods Approach



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