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A gender-based study of interpersonal metadiscourse markers in the research papers of Iranian senior undergraduate students of translation studies

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Abstract

Regarding the gender of writers, this study aims to extract and classify the metadiscourse markers (MDMs1), both interactive and interactional metadiscourse markers, used in the research papers written by senior undergraduate students of translation studies at the University of Sistan and Baluchestan, based on Hyland's interpersonal model of metadiscourse. The study covers all the five sections of 60 research papers written by 30 male students (MS) and 30 female students (FS): the abstract, the introduction, the methodology, the results, and the discussion sections. Regarding the frequencies and types of MDMs, the manual frequency count was applied to record the types of MDMs identified in the model. Findings revealed that, regarding the macro-level analysis, the students applied all the strategies (like transitions, frame markers, endophoric markers, hedges and boosters). However, they applied just some of the strategies mentioned in the micro-level analysis, such as "additions", "comparisons", "consequences", "sequencing", "label stages", "adjectives" and "directives". In addition, the results of Chi-square tests showed that the gender of the students, which seems to be affected by factors like social settings and culture, influences the use of interactive and interactional metadiscourse by them. Therefore, one of the areas closely related to the performance of English learners is the role of gender in the use of MDMs by foreign or second language learners.

Keywords: interpersonal metadiscourse markers; interactive markers; interactional markers; gender; Iranian undergraduate students.

¹ Abbreviations: MDMs: metadiscourse markers; MS: male students; FS: female students.

1. Introduction

The interpersonal nature of academic communication (including interactive and interactional MDMs) has been emphasized in the last few decades (e.g., Hyland, 2005; Tse and Hyland, 2008). The studies investigating MDMs may be of great help to both foreign language and native language students, as they reveal the possible problematic areas in the utility of MDMs in the texts. It is a necessity for the students to become familiar with textual concepts, such as cohesion and coherence, and the only way to reach this end is through learning the functional roles that the textual and interpersonal metadiscourse markers have in different contexts and genres (Mehrabi and others, 2014). Regarding the learners' characteristics and performance, Bijami and others (2013: 8) state that:

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In view of the fact that learner-centered instruction is the standpoint in education in new trends, teachers must be aware of students' characteristics in order to tailor their teaching to needs of learners. One of the areas which is closely related to characteristics and performance of language learners is the role of gender on language learning in general and writing performance in particular.

As Hyland (2005) claims, a text is written in such a way that comprehension and participation processes are not only a matter of the clarification of information, but also of every writer's projection of a shared context. He also asserts that writers achieve this by using an extensive amount of metadiscoursal resources to make clear the textual organization and directly guide readers to the desired interpretations. In addition, in this way, they distance themselves from claims and demonstrate stance. Hyland (2004) suggests that exploring these interpersonal dimensions of academic writing is appreciated because they disclose the norms and expectations dominating particular cultural and professional communities.

Regarding the importance of MDMs in communication, this study aims to test the following null hypotheses:

- 1. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of interactive MDMs.
- 1.1. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of transitions.
- 1.2. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of frame markers.
- 1.3. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use

- 1.4. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of code glosses.
- 1.5. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of evidentials.
- 2. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of interactional MDMs.
- 2.1. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of hedges.
- 2.2. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of boosters.
- 2.3. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of attitude markers.
- 2.4. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of self-mentions.
- 2.5. There is not a significant relationship between the gender of senior undergraduate students of translation studies at the University of Sistan and Baluchestan and their use of engagement markers.

2. Review of literature

Tse and Hyland (2008) explored the issue of gender in academic interactions by analyzing a corpus of academic book reviews and interviews with academics from philosophy and biology. Focusing on metadiscourse features, they examined the similarities and differences in the rhetorical practices of male and female academics in their construction of a disciplinarily appropriate identity. Their results showed that "while there is no one-to-one relation between gender and language, gender and discipline identities cross-cut each other in significant ways in the context of professional self-conception and personal preferences" (1232).

Ghafar Samar and Shirazizadeh (2010) examined whether the gender-preferential linguistic elements found by Argomon and others (2003, cit. in Ghafar Samar and Shirazizadeh, 2010) show the same gender-linked frequencies in applied linguistics research papers written by

non-native speakers of English. Their results indicated that, although the gender-linked patterns of use for many of those features were also observed in their sample, the difference between men and women in the frequency of using those elements was not statistically significant. "This non-significant difference", as they state, "shows that either the confinements of genre or those of using a second language or both are keeping L2 writers from expressing their gender to its fullest capacity in the texts they produce" (71).

Based on the Hyland's (2005) model of metadiscourse, Ghafoori and Oghbatalab (2012) examined whether male and female native English writers differed in the use of metadiscoursal elements. Results of their independent-samples t-test showed that English male and female writers did not differ significantly in their overall use of metadiscourse markers; however, they observed significant differences in the categorical distribution of metadiscoursal elements.

D'Angelo's (2008: 218) research study "moves from the assumption that gender is, to a large extent, a socially and culturally constructed category that shapes how women and men interpret their experiences". She worked on the fields of applied linguistics, economics, law and medicine, and showed that differences between genders were present in the overall distribution of metadiscourse. Therefore, she (ibid.: 219) "confirmed that gender does indeed influence academic discourse, when it is considered within specific disciplinary cultures, but also highlights the fact that variations linked to the author's gender are not as relevant as the discrepancies between expert and novice writers". Her findings, in particular, revealed that "writing with authority is a skill that is learned through years of practice and the discrepancies observed between expert and novice writers in the corpus clearly reflect such learning process" (219).

Mirshamsi and Allami (2013) investigated cross-cultural similarities and differences in the use of metadiscourse markers in the discussion and conclusion sections of the master theses of native English speakers, native Persian speakers, and non-native English speakers. Results of their study revealed that native English writers applied more interactive and interactional meta-discourse markers than native Persian writers and EFL learners. This result, as the authors believe, might stem from "the insufficient awareness of EFL learners of the role of the metadiscourse markers, intercultural differences, and the fact that they do not usually receive explicit instruction on these devices in Persian academic context" (23).

Bagheri and others (2013) conducted a study to explore the function and frequency of textual metadiscourse markers (MDMs) in four scientific different textbooks, two written in English and two in Persian. In addition, the writers aimed to determine the sociopragmatic differences existing in these languages. Chi-square test findings suggested that textual MDMs were present in both English and Persian texts, but they differed in their frequency of

occurrence. It was shown that the frequency of the textual MDMs was greater in the Persian texts. The authors attributed this result to the differing rate of explicitness in these two languages. It was further found by the authors that "different factors may influence the use of MDMs, namely the culture, the writer's preferences, the text, and its genre" (59).

Lee and Casal (2014) studied the cross-linguistic variation of metadiscourse markers in the results and discussion chapters of engineering master's theses written in English and Spanish, applying Hyland's (2005) interpersonal model of metadiscourse. To examine the influence of lingua-cultural contexts of writing on student writer's employment of metadiscoursal resources, the authors compared the results and discussion chapters of these theses. Findings of the study revealed "significant cross-linguistic differences for overall frequency of metadiscourse as well as for most (sub-)categories" (39). In addition, the results suggested that, even within the same discipline, interpersonal features of writing are inevitably related to the specific lingua-cultural contexts in which texts are produced and applied.

Attarn (2014) examined the use of interactive and interactional metadiscourse features in ESP articles written by Iranian and English native speakers. The analysis was based on a corpus of 15 research articles written in Persian and 15 research articles written in English in ESP field. The selected articles were analyzed using the model suggested by Hyland (2005). Results of the study showed that both groups used interactive and interactional features in their articles. In both groups, the writers used interactive metadiscourse features more than interactional ones. Moreover, there were significant differences in the particular occurrence of some categories in interactive and interactional features.

Zareifard and Alinezhad (2014) tried to analyze the relationship between interactional metadicourse and gender in thesis defenses of nine males and nine females in humanities and social sciences. The quantitative analysis of their data showed a statistically significant difference in the use of interactional metadiscourse markers by male and female candidates. However, the analysis showed that there were also some similarities between these two social groups in applying the different types of metadiscourse markers in the defense seminars of these Persian speakers.

Taromi and others (2018) explored whether there were any significant differences in terms of gender in the general use of the markers in interactional metadiscourse as well as in the distribution of various interactional metadiscourse markers across Persian research articles. Their findings indicated that there was an overall significant difference in the frequencies of the interactional metadiscourse markers. Further, the separate review of these markers in relation to gender showed that there were significant differences in the use of hedges, attitude markers, and self-mentions, but there were no significant differences in the use of boosters and engagement markers between male and female writers.

3. A metadiscourse model

Crismore and others (1993) describe metadiscourse as written or spoken linguistic material which is intended to help the addressee (listener or reader) organize, interpret and evaluate the given information but does not add anything to the propositional content of the text.

Regarding metadiscourse, Hyland and Tse (2004: 159) believe that "what is understood by the term 'proposition' is often left vague, but it is generally used to refer to all that which concerns thoughts, actors, or states of affairs in the world outside the text". They proclaim that "the idea of propositional content does not rule out much of what is typically considered as metadiscourse" (159) and it is not always easy to distinguish what is content from what is not. Later, Tse and Hyland (2008: 1236) state that the total meaning of a text is a result of the interplay of its component parts. However, by distinguishing the text's ideational content from the material organizing this content and conveying the writer's beliefs and attitudes towards it, something can be understood of how writers understand themselves and their orientations towards their text and their readers. They also add that "metadiscourse allows writers to use language to acknowledge, construct and negotiate social relations, representing themselves, their views and their audience" (1236). This, as they claim, is because academics do not just argue about ideas, but, at the same time, "seek to claim solidarity with readers, evaluate material and acknowledge alternative views in various ways, and they use the resources of metadiscourse to do this" (1236). The writer's adoption of a particular position is motivated by an awareness of the self and the reader, indicating a sensitivity to the context of discourse and to making predictions about the audience's knowledge and potential responses (Hyland and Tse, 2004; Hyland, 2005).

Hyland (2005) distinguishes between interactive and interactional resources in characterizing interpersonal choices, borrowing Thompson's (2001) terms, i.e., interactive and interactional resources, which let the writers manage the information flow and explicitly establish their preferred interpretations. Interactive resources, as Hyland (2005: 218-224) declares (see also Hyland and Tse, 2004: 1236-1237), include (see also table 1 below):

- Transitions: items indicating internal relationships between discourse parts. Sub-categories: additions (also), comparisons (although), and consequences (therefore).
- Frame markers: items signaling text structure and boundaries. Sub-categories: sequencing (first) label stages (overall), announcing goals (objective), and topic shift (now).
- Endophoric markers: items directing readers to other text parts.

 Sub-categories: non-linear (Figure), linear-chapter/section level (In section), linear-sentence level (Example), and linear-low reflexivity markers (X above).

- Code glosses: items clarifying author's intended meaning. Sub-categories: reformulation (i.e.) and exemplification (for example)
- Evidentials: references to intertextual material ((X, 2010)).

The interactional metadiscourse categories and sub-categories analyzed are the following:

- *Hedges*: items qualifying assertions, indicating uncertainty, or acknowledging alternative perspectives.
 - Sub-categories: reader-oriented (would), writer-oriented (suggest), and accuracy-oriented: attribute (almost) and reliability (seem).
- Boosters: items demonstrating certainty and delimiting alternative viewpoints. Sub-categories: emphatics (certain) and amplifying adverbs (always).
- Attitude markers: items conveying attitude and evaluation of proposition. Sub-categories: attitude verbs (*prefer*), sentence adverbs (*usually*), and adjectives (*important*).
- Self-mentions: items explicitly referring to the author (I).
- Engagement markers: items directly addressing or including readers as discourse participants.
 - Sub-categories: reader pronouns (we), interjections (incidentally), questions (?), and directives: imperatives (see) and obligation modals (must).

The different types of interactive and interactional MDMs studied in the research are summarized in table 1 below.

TABLE 1Types of interactive and interactional metadiscourse markers (Hyland, 2005)

		Transitions
		Frame markers
Metadiscourse	Interactive metadiscourse	Endophoric markers
	markers	Code glosses
		Evidentials
markers		Hedges
	Interactional	Boosters
	metadiscourse	Attitude markers
	markers	Self-mentions
		Engagement markers

4. Methodology

4.1. Corpus

Thirty research papers from male and thirty research papers from female senior undergraduate students of translation studies at the University of Sistan and Baluchestan were selected randomly by the researchers to examine the frequency of interactive and interactional MDMs as well as the existence of significant relationships between the gender of the students and the use of these MDMs. The research papers were written on different topics in the field of translation studies as classroom projects for the research methodology course. The papers belonged to different academic years.

4.2. Data collection and data analysis procedures

To investigate the data, the authors counted the interactive and interactional MDMs used in all the main sections of 60 research papers of the students, i.e., the abstract, introduction, methodology, discussion and conclusion sections. Regarding the frequencies and types of these markers, the manual frequency count was applied to record the number of the identified MDMs mentioned in the model adopted. The presence of the markers was calculated with regard to both macro-(like "transitions", "frame markers", "endophoric markers", "evidentials" and "code glosses" for interactive markers, and "hedges", "boosters", "attitude markers", "self-mentions" and "engagement markers" for interactional MDMs) and micro-level analysis (like "addition", "comparison" and "sequencing" for interactive, and "attribute", "reliability" and "adjective" for interactional markers). For the purpose of this study, a metadiscourse taxonomy involving interactive and interactional MDMs, formulated by Hyland (2005), was adopted as the model (table 1 above). The data were subsequently analyzed using the Statistical Package for the Social Sciences (SPSS), version 16. For all of the analyses, the alpha level was set at 0.05. Pearson's Chi-square test (X^2) was applied to assess whether there was a significant relationship between the gender of the students of the study and the use of interactive and interactional MDMs by them.

5. Results and discussions

As it was said, interactive and interactional MDMs in the Hyland's model of metadiscourse include some categories, which, in turn, also include some subcategories. In this part, some instances of the data, the results of the present study, together with their discussions, are presented.

5.1. Interactive metadiscourse markers

According to Hyland (2005: 49), the interactive dimension of metadiscourse markers is related "to the writer's awareness of a participating audience and the ways they seek to

accommodate its probable knowledge, interests, rhetorical expectations and processing abilities". The purpose of writers here, as he claims, "is to shape and constrain a text to meet the needs of particular readers, setting out arguments so that they will recover the writer's preferred interpretations and goals" (49). He continues that "[t]he use of resources in this category therefore addresses ways of organizing discourse, rather than experience, and reveals the extent to which the text is constructed with the readers' needs in mind" (49). The interactive metadicourse markers found in the data are listed below.

5.1.1. Transitions

With regard to applying transitions, Tse and Hyland (2008: 1242) assert that:

[e]ssentially, interactive forms such as transitions are used to signal the arrangement of texts in a way which reflects the writer's appreciation of the reader's likely knowledge and understandings. This influences the 'reader friendliness' of a text and primarily involves the management of information flow. Transitions represent a working towards a consensus by linking elements of the discourse in ways the reader is likely to best understand and find persuasive, guiding readers by anticipating their likely reactions and needs.

As it was said above, transitions comprise some subcategories. In the following, the subcategories of transitions found in the data, together with examples taken from the students' research papers, are presented.

- a. Addition: and, also, in addition, moreover, besides, further, furthermore. Example: Also, the students can recognize their errors and will stop committing such errors.
- b. Comparison: although, at the same time, but, however, in the same way, on the other hand, though, whereas, while, yet.
 Example: Although much works has been done in this area, more studies are necessary to find out and clarify such errors.
- c. Consequence: as a result, because, consequently, hence, since, so, so as to, therefore, thus.
 - Example: <u>Therefore</u>, a study needs to be conducted on reported speech in Persian and English.

Table 2 below shows the frequency and percentages of transitions and their subcategories in the whole set of the data collected from the MS and FS' research papers. As the table shows, the females used all the three subcategories of transition more than the males did. In addition, the Chi-square test results in table 3 shows that p < 0.05, so the null hypothesis 1.1 of the research is rejected, which means that there is a significant relationship between the gender of the students and their use of transitions.

TABLE 2Frequencies of transitions in the data according to gender of the students

INTERACTIVE METADISCOURS	E MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Transitions	Addition	544	21.06 %	663	25.66 %
	Comparison	71	2.84 %	103	3.98 %
	Consequence	76	2.94 %	69	2.67 %
Total		691	26.751 %	835	32.326 %

According to the results obtained by the Chi-square test in table 3, and the statement made by Tse and Hyland (2008: 1242) above, it can be concluded that FS seem to pay more attention to create a more 'reader friendliness' text, appreciate the readers likely knowledge more than the MS, and try to guide their readers more by anticipating their likely reactions and needs.

TABLE 3Chi-square test results regarding the relationship between gender of the students and using transitions by them

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Transitions	691	835	13.59	0.000

5.1.2. Frame markers

Hyland (2005: 51) considers frame markers to be signals of text boundaries or elements of schematic text structure. He believes that "care needs to be taken to identify features which order arguments in the text rather than events in time. Items included here function to sequence, label, predict and shift arguments, making the discourse clear to readers or listeners". Moreover, Tse and Hyland (2008: 1237) mention that "[f]rame markers are references to text boundaries or elements of schematic text structure, including items used to sequence, label stages, announce discourse goals and indicate topic shifts". Some frame markers found in the data are presented below:

- a. Sequencing: finally, first, first of all, firstly, last, lastly, next, second, secondly, subsequently, then, third, thirdly.
 - Example: The data were then classified according to the type of errors.
- b. Lable stages: in brief, in conclusion, in summary, now, so far, to summarize. Example: The results of the study were <u>summarized</u> in three tables.

- c. Announcing goals: aim, goal, objective, purpose.

 Example: The <u>purpose</u> of this study is to identify and clarify the errors which advanced level university students commit in translating nonfinite clauses.
- d. Topic shift: so, with regard to, regarding, considering. Example: <u>So</u>, the results of this study cannot be generalized.

Table 4 below shows the frequency and percentages of the frame markers and their subcategories found in the whole set of the data collected. According to this table, the male and FS used all the subcategories of frame markers almost to the same extent.

TABLE 4Frequencies of frame markers used by students regarding their gender

INTERACTIVE METADISCO	OURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Frame markers	Sequencing	42	1.62 %	45	1.74 %
	Label stages	11	0.42 %	4	0.15 %
	Announcing goals	80	3.09 %	66	2.55 %
	Topic shift	34	1.31 %	49	1.89 %
Total		167	6.465 %	164	6.349 %

In addition, the Chi-square test result in table 5 below show that p > 0.05, so the null hypothesis 1.2 of the research is confirmed, which means that there is no significant relationship between the gender of the students and their use of frame markers.

This result is in line with the findings of Ghafoori and Oghbatalab (2012) and Tse and Hyland (2008). "One explanation for this approximately identical use", as Ghafoori and Oghbatalab (2012: 101) assert, "is that framing the discourse and sequencing parts of the text or internally ordering an argument appear to be an integral part of a written discourse regardless of the writers' gender". They indicated that both male and female writers drew on the same number of 'frame markers'. However, this runs against the result of a study by Crismore and others (1993), who found that frame markers were employed more by men than by female writers.

TABLE 5Chi-square test results regarding the relationship between gender of the students and using frame markers

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Frame markers	167	164	0.027	0.869

5.1.3. Endophoric markers

Hyland (2005: 156) introduces endophoric markers as those which "represent the writer's assessment of both the material and the audience, relating the propositions to the reader's assumed ability to process, and accept, the ongoing argument". Besides, Tse and Hyland (2008: 1237) describe endophoric markers by stating that they "make additional material salient and available to the reader in recovering the writer's intentions by referring to other parts of the text". A few endophoric type of markers found in the data are presented below:

Non-linear: Fig. X, Figure X, Table X.

Example: Figure 1 reveals the percentages of the errors committed.

According to table 6, the male and the FS applied this category with different frequency and percentages. In fact, the MS used frame markers more than the FS. Besides, the Chi-square test results in table 7 show that p < 0.05, so the null hypothesis 1.3 of the research is rejected, which means that there is a significant relationship between the gender of the students and their use of endophoric markers. This result is in line with Tse and Hyland (2008), as the male writers of their study used more endophoric markers than the female writers.

TABLE 6Frequency of endophoric markers used by the students regarding their gender

INTERACTIVE METADISCOU	RSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Endophoric markers	Non-linear	173	6.69%	74	2.87%

TABLE 7

Chi-square test results regarding the relationship of gender of the students and their use of endophoric markers

INTERACTIVE METADISCOURSE MARKERS	MALES	FEMALE	X2	P-VALUE
Endophoric markers	173	74	39.68	0.000

5.1.4. Code glosses

Code glosses signal the restatement of ideational information (Tse and Hyland, 2008). In fact, these elements help the readers understand the writer's intentions and overcome processing difficulties they might encounter throughout the discourse. Some instances of code glosses found in the data are presented below:

- a. Reformulation: i.e., in fact, in other words, indeed, namely, or x, especially, that is. Example: Also, they usually applied other different vowels or consonants.
- b. Exemplification: e.g., for example, for instance, like, such as. Example: For example, 24 % of the subjects committed this type of errors.

Table 8 below illustrates the frequency and percentages of code glosses used by the male and FS. According to this table, the FS tend to apply more code glosses than MS do. Moreover, the Chi-square test results in table 9 reveal that p < 0.05, so the null hypothesis 1.4 of the research is rejected, which means that there is a significant relationship between the gender of the students and their use of code glosses.

TABLE 8Frequencies of code glosses regarding the gender of the students

INTERACTIVE METAI	DISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Code glosses	Reformulation	95	3.67 %	100	3.87 %
	Exemplification	53	2.05 %	132	5.11 %
Total		148		232	

TABLE 9

Chi-square test results regarding the relationship of gender of the students and their use of code glosses

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Code glosses	148	232	18.57	0.000

5.1.5. Evidentials

Evidentials, according to Hyland (2005), are described as clear disciplinary variations not only in the extent to which writers rely on the work of others in their arguments but also in how they represent such work. Besides, Ghafoori and Oghbatalab (2012: 91) define evidentials as "linguistic resources by means of which the writer finds support for his arguments and consolidates his credibility by referring to another's work or by directly or indirectly quoting them (e.g., according to X, to cite X, to quote X)". The following is an example found in the data:

Example: <u>According to figure 1</u>, the highest percentage of errors (34 %) was related to tenses...

Table 10 below shows the frequency of evidentials used by the male and FS in this study. As the table shows, the females applied more evidentials than the males. However, as table 11 reveals, this difference is not so big to establish any significant relationship between the gender of the students and their use of such markers (p > 0.05); so the null hypothesis 1.5 of the research is confirmed.

TABLE 10

The frequencies of the use of evidentials regarding the gender of the students

INTERACTIVE METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Evidentials	46	1.78 %	53	2.05 %

TABLE 11

Chi-square test results regarding the relationship between the gender of the students and their use of code glosses

INTERACTIVE METADISCOURSE MARKERS	MALES	FEMALES	X ²	P-VALUE
Total	46	53	0.495	0.482

5.2. Interactional metadiscourse markers

The interactional dimension of MDMs, according to Hyland (2005: 49-50), considers "the ways writers conduct interaction by intruding and commenting on their message. The writer's goal here is to make his or her views explicit and to involve readers by allowing them to respond to the unfolding text". He believes that "[t]his is the writer's expression of a textual 'voice', or community-recognized personality, and includes the ways he or she conveys judgements and overtly aligns him- or herself with readers" (49-50). In addition, Hyland proclaims that "[m]etadiscourse here 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" (49-50). The interactional MDMs found in the data were as follows.

5.2.1. Hedges

According to Tse and Hyland (2008: 1237), "[h]edges signal the writer's reluctance to present propositional information categorically". In other words, according to them, they serve to tone down the author's judgmental authority. In addition, Ghafoori and Oghbatalab (2012) state that "[t]hese devices such as *possible*, *might* and *perhaps*, *likely*, *mainly* indicate the writer's decision to recognize alternative voices and viewpoints and so withhold complete com-

mitment". Broadbridge (2003: 18) mentions that "another form of language which has been identified as being tentative speech is the use of hedges, for example, sort of, kind of, etc.".

Table 12 shows the frequency of hedges used by the male and FS. As the frequencies show, the FS tended to use hedges more than MS. Besides, according to table 13, the Chi-square test results show that the p-value is 0.238, which is more than 0.05. This indicates that there is no significant relationship between the gender of the students in this study and their use of hedges. Therefore, the null hypothesis 2.1 of the research is confirmed. Lakoff (1975) describes hedges as a feature of women's language. Although the results of this study are in line with Broadbridge (2003) and Zareifard and Alinezhad (2014), in whose studies the females used hedges more than the males, they are not in agreement with the findings of Tse and Hyland (2008) and Ghafoori and Oghbatalab (2012), in whose studies the males applied more hedges than the females. The followings are some of the different types of hedges used by students in the present study:

- a. Attribute: about, almost, around, in most cases, mainly, mostly, often, sometimes. Example: <u>About fifteen English students who were in the second term at Sistan and Baluchestan University in Zahedan were chosen for this study.</u>
- b. Reliability: could, couldn't, may, maybe, might, perhaps, possible, unlikely, usually. Example: To learn any skill, we should practice it as much as <u>possible</u>.
- c. Writer-oriented: assume(s), assumed, claim(s), claimed, indicate(s), indicated, seem(s), suggest(s), suggested, suppose(s), supposed.

 Example: Such errors are <u>supposed</u> to be a result of the interference of the structure of the mother tongue in the sentence.
- d. Reader-oriented: feel(s), felt, would, wouldn't, would not, as far as I know, should. Example: There have not been research, <u>as far as I know</u>, on the types of errors that Persian students make in using prepositions in English.

TABLE 12Frequencies of hedges used by the students regarding their gender

INTERACTIVE	METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Hedges	Attribute	52	2.719	48	2.51
	Reliability	143	7.479	181	9.466
	Writer-oriented	96	5.02	84	4.393
	Reader-oriented	17	0.889	25	1.307
	Total	308	16.108	338	17.677

TABLE 13

Chi-square test results regarding the relationship between the gender of the students and their use of hedges

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Hedges	308	338	1.393	0.238

5.2.2. Boosters

Boosters, another kind of interactional markers, as Hyland (2005: 52) claims, "are words such as *clearly, obviously* and *demonstrate*, which allow writers to close down alternatives, head off conflicting views and express their certainty in what they say". He believes that boosters advocate that the writer distinguishes potentially diverse positions but prefer to make this diversity narrower rather than make it larger and theses markers confront alternatives with a single and confident voice. In addition, Hyland (2005) states that boosters strengthen an argument by emphasizing the mutual experiences needed to draw the same conclusions as the writer. The balance of hedges and boosters in a text thus indicates to what extent the writer is willing to entertain alternatives and so plays an important role in conveying commitment to text content and respect for readers.

Table 14 below shows the frequency of boosters used by the male and FS in this study. As the table shows, the FS applied these markers more than the MS. However, this difference is not so much as to cause a significant relationship between the gender of the students and their use of boosters. This is clearly evident from the results of the Chi-square test in table 15, which reveal that the p-value is more than the alpha level 0.05. Therefore, there is not any significant relationship between the gender of the students in this study and their use of boosters; this means that the null hypothesis 2.2 of the research is confirmed. This is in line with the result of Zareifard and Alinezhad (2014), as they state that there is almost no difference in the frequency of boosters used by the male and female writers in their study. However, the findings of the present study are not in line with the results of the study done by Tse and Hyland (2008), in which the male writers were heavy users of boosters, which they consider as a feature of female speech. The followings are examples of boosters found in the students' research papers examined in the present study:

- a. Emphatics: find(s), found, in fact, know(s), of course, prove(s), proved, realize(s), realized, really, show(s), showed, shown, sure, think(s), thought.
 Example: The results showed that the highest percentage of the errors was related to the translation of the Persian compound verbs into English word by word (59.39 %).
- a. Amplifying adverbs: always, clearly, never, obviously, surely. Example: The results suggest that it is not <u>always</u> possible to translate one English single word exactly into one Persian single word.

TABLE 14Frequencies of boosters used by the students regarding their gender

INTERACTIVE	METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Boosters	Emphatics	222	11.61	173	9.048
	Amplifying adverbs	37	1.935	46	2.405
	Total	259	13.546	219	11.453

TABLE 15

Chi-square test results regarding the relationship between gender of the students and their use of boosters

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Boosters	259	219	3.347	0.067

5.2.3. Attitude markers

Attitude markers, according to Hyland (2005: 53), "indicate the writer's affective, rather than epistemic, attitude to propositions. Instead of commenting on the status of information, its probable relevance, reliability or truth, attitude markers convey surprise, agreement, importance, obligation, frustration, and so on". He adds that "[w]hile attitude is expressed by the use of subordination, comparatives, progressive particles, punctuation, text location, and so on, it is most explicitly signalled metadiscoursally by attitude verbs (e.g., agree, prefer), sentence adverbs (unfortunately, hopefully) and adjectives (appropriate, logical, remarkable)".

Results of the counting of attitude markers in table 16 show that the MS of this study tended to use attitude markers more than the FS. Besides, the Chi-square test results of table 17 reveal that there was a significant relationship between the gender of the students and their use of attitude markers (p > 0.05). Therefore, the null hypothesis 5.3 was rejected. However, Zareifard and Alinezhad (2014) and Tse and Hyland (2008) report a greater use of attitude markers by female writers in their studies. The followings are types of attitude markers found in the collected data:

- a. Sentences adverbs: usually, unfortunately, interestingly.

 Example: One kind of errors <u>usually</u> committed by Iranian students who are learning English is to translate Persian compound verbs word by word into English.
- b. Adjectives: appropriate, essential, expected, useful, important, inappropriate, interesting, preferable, preferred, remarkable.

 Example: The outcome of the study might be <u>useful</u> for the English teachers and learners.

TABLE 16Frequencies of attitude markers used by the students regarding their gender

INTERACTIVE ME	TADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Attitude markers	Sentences adverbs	107	5.596	43	2.248
	Adjectives	230	12.02	208	10.878
	Total	337		251	

TABLE 17

Chi-square test results regarding the relationship between gender of the students and their use of attitude markers by them

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Attitude markers	337	251	13.107	0.000

5.2.4. Self-mentions

Self-mentions are those interactional markers which, according to Hyland (2005: 53), "refer to the degree of explicit author presence in the text measured by the frequency of first-person pronouns and possessive adjectives (I, me, mine, exclusive we, our, ours)". He also claims that it is unavoidable for writers to project an impression of themselves and the way they stand in relation to their arguments, community and readers.

Table 18 shows the frequency of self-mentions used by the students in this study regarding their gender. Besides, the Chi-square test results in table 19 reveal that there was not a significant relationship between the gender of the students and their use of self-mentions, which indicates that the null hypothesis 5.4 of the research is confirmed.

Ghafar Samar and Shirazizadeh (2010: 73) concluded that male authors were found to use more first person pronouns than female authors. Besides, in line with the results of the previous study, there are the results of a study by Zareifard and Alinezhad (2014), in which the male authors use more self-mentions than their female counterparts. They believe that this is because the professional identity of being considered as researchers is more important for males. The following are some of the self-mentions found in our data:

Self-mentions: I, me, my, mine, our, us, we, the writer.

Example: Because of limitation of time and subjects whom <u>I</u> chose for this research, its results can not be generalized.

TABLE 18

Frequency of self-mentions used by the students regarding their gender

INTERACTIVE METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Self-mentions	17	0.889	13	0.679

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TABLE 19

Chi-square test results regarding the relationship between gender of the students and their use of self-mentions

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Self-mentions	17	13	0.553	0.465

5.2.5. Engagement markers

Hyland (2005: 54) defines engagement markers as "devices that explicitly address readers, either to focus their attention or include them as discourse participants". Moreover, he adds that "in addition to creating an impression of authority, integrity and credibility through choices of *hedges*, *boosters*, *self-mention* and *attitude*, writers are able to either highlight or downplay the presence of their readers in the text".

Table 20 below shows that the MS applied more engagement markers in their research papers; however, this difference is not enough to establish a significant relationship between the gender of the students and their use of such markers, as the results of the Chi-square test in table 21 below shows; so, the null hypothesis 2.5 is confirmed.

Zareifard and Alinezhad (2014) assert that female writers use more engagement markers than male writers. They believe that this reveals that the interpersonal communication is more important for females. Findings of Tse and Hyland (2008) are in line with the findings of the present study, as the male writers of their study applied more engagement markers than the female writers. The followings are types of engagement markers found in the data:

- a. Reader pronouns: our, (the) reader, us, we, you, your. Example: We should decrease our errors by paying attention to our speech and writing.
- b. Directives: have to, must, need to, ought to, should. Example: Therefore, translators should use different strategies in translating some English single words into Persian.

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TABLE 20

Frequencies of "engagement markers" used by the students regarding their gender

INTERACTIVE M	METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALES	% OF TOTAL
Engagement	Reader pronouns	17	0.889	16	0.836
markers	Directives: obligation modal	74	3.87	63	3.294
	Total	91	4.759	79	4.131

TABLE 21

Chi-square test results regarding the relationship between the gender of the students and their use of engagement markers

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALES	X ²	P-VALUE
Engagement markers	91	79	0.847	0.357

5.3. Interactive and interactional metadiscourse markers in the data

Table 22 and 24 below show the frequencies, and table 23 and 25 illustrate the Chi-square test results of all the interactive and interactional MDMs used by the students regarding their gender in the present study. As table 22 shows, the FS tended to use more interactive MDMs than the MS. In addition, the results of the Chi-square test in table 23 reveal a significant relationship between the gender of the students and their use of interactive MDMs. Therefore, the null hypothesis 1 is rejected.

TABLE 22

Frequencies of interactive metadiscourse markers regarding the gender of the students

INTERACTIVE METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALE	% OF TOTAL
Total	1225	47.425	1358	52.574

TABLE 23

Chi-square test results regarding the relationship between the gender of the students and their use of interactive metadiscourse markers

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALE	X ²	P-VALUE
Total	1225	1358	6.85	0.009

In table 24, on the other hand, the number of interactional MDMs used by the MS is more than those used by the FS. Besides, the Chi-square test results of table 25 show a significant relationship between the gender of the students and their use of interactional MDMs and, therefore, the null hypothesis 2 is rejected.

TABLE 24Frequency of interactional metadiscourse markers used by the students regarding their gender

INTERACTIVE METADISCOURSE MARKERS	MALES	% OF TOTAL	FEMALE	% OF TOTAL
Total	1012	52.92%	900	47.071%

TABLE 25

Chi-square test results regarding the relationship between gender of the students and their use of interactional metadiscourse markers

INTERACTIVE METADISCOURSE MARKERS	MALE	FEMALE	X ²	P-VALUE
Total	1012	900	6.561	0.010

As indicated in the tables 2, 4, 6, 8 and 10 regarding the interactive MDMs, MS of this study applied transition (691), endophoric markers (173), frame markers (167), code glosses (148), and evidentials (46), respectively, from the higher times of occurrence to the least. On the other hand, FS employed transition (835), code glosses (232), frame markers (164), endophoric markers (74), and evidentials (53), respectively, from the highest frequency of the applied markers to the least.

Considering the use of transitions, both groups employed them as the most frequent MDMs in the list. However, as table 3 represents, FS (835) tended to apply these markers more than MS (691). Therefore, there was a significant relationship between the use of these markers and gender of the addresses. This result may be arisen as females are known to be more talkative than males (see, e.g., Best and Williams, 1994), so, they use more transitions to lengthen their speech and speak more. This finding is not compatible with the one obtained by Tse and Hyland (2008) in which male and female participants used transitions almost the same. They argued that writers of both genders tried to assist their readers to get clear interpretation of their arguments.

Regarding the use of frame markers, there is not much difference between MS (167) and FS (164). Thus, any significant relationship was not seen between the use of these markers and gender of the students. This result is in agreement with Tse and Hyland (2008) and also Ghafoori and Oghbatalab (2012) in which their results indicated no significant relationship

between the use of these markers and gender of the participants. The explanation could be that the text of research framework and sequencing its different parts is an integral part of writing a research paper and must not be violated. The finding is not supported by the research done by Crismore and others (1993). Crismore and others (ibid.) found that men employ more frame markers than women.

Considering the use of endophoric markers, MS (173) exceeded FS (74). Therefore, there was a significant relationship between the use of these markers and gender of the students. This finding is compatible with the one concluded by Tse and Hyland (2008). This result may be a consequence of the fact that men are known to be more logical than women (see Best and Williams, 1994). This logic leads them to be more reasonable and demonstrate their data with more documents like statistics, tables and graphs. In this way, they "represent the writer's assessment of both the material and the audience, relating the propositions to the reader's assumed ability to process, and accept, the ongoing argument" (Hyland, 2005: 156). Consequently, it seems that men tended more to communicate with and convince their readers to accept their ideas, which is also can be demonstrated by the result that they employ more engagement markers (one of the interactional MDMs) than women.

On the other hand, FS (232) applied more code glosses than MS (148). Table 9 indicated a significant relationship between the use of these markers and gender of the students. Conversely, Ghafoori and Oghbatalab (2012: 99), investigating some journal articles in applied linguistics written by male and female writers, obtained a different result; i.e., "male writers appeared to give a higher priority to glossing whenever they felt that the reader might be burdened with unfamiliar terms or they might not have enough literacy to grasp what the writer intended to get across". In addition, the result of the present study is not in line with that of Tse and Hyland (2008). They found that male and female writers showed the same pattern of use regarding code glosses. These different results obtained by different researchers in different cultures may be a consequence of growing up in different societies and cultures. Iranian women may tend more to explain their intended meaning by use of different code glosses to their readers than Iranian men.

Evidentials are the last and the least used interactive MDMs in the study data. As the data in table 11 show, there is not a significant relationship between the use of these markers and gender of the students. However, there is some minor differences in the frequencies, i.e., FS (53) applied more evidentials than MS (46). This finding ran for the result of Tse and Hyland's (2008) study. On the other hand, Ghafoori and Oghbatalab (2012) came across a different finding, i.e., they argue that female writers tended using more evidentials than male ones.

As shown by the tables 12, 14, 16, 18 and 20 related to interactional MDMs, MS used attitude markers (337), hedges (308), boosters (259), engagement markers (91) and self-mentions (17), ranged from the most frequent interactional MDMs to the least one. FS, on the other

hand, applied hedges (338), attitude markers (251), boosters (219), engagement markers (79) and self-mentions (13), respectively. According to these data, male and FS use those markers related to the attitudes (attitude markers, hedges and boosters) more than those markers indicating the direct presence of writers and readers (engagement markers and self-mentions) in the process of presenting research data. This result is in line with Taromi and others (2018) in the case of the data presented in the Persian research papers.

Considering attitude markers, there was a significant relationship between the use of these markers and gender of the student. MS (337) used more attitude markers than FS (251). This result may happen because men to be more known as self-confident, individualist and leader than women (see Best and Williams, 1994). Thus, they employ more MDMs which indicate their attitudes to the others. This result of the study is not supported by Taromi and others (2018) and Tse and Hyland (2008). Their findings showed women used more attitude markers than men.

Based on the data in table 13, there was not a significant relationship between the use of hedges and the gender of the students. This means that the difference is low and it can be ignored. This finding is supported by Tse and Hyland's (2008) result, and is not in agreement with studies done by Taromi and others (2018) and Zareifard and Alinezhad (2014).

Boosters are the next interactional MDMs in the list. Table 15 indicated no significant relationship between the use of these markers and gender of the students. Nonetheless, there is a minor difference between the frequency of the use of boosters by MS (259) and FS (219). This result is consistent with Taromi and others (2018) finding in which male and female writers employed boosters with a minor difference. On the other hand, it contrasts with Tse and Hyland's (2008) research findings which came across different results. These contradictions may be related to the variety of cultures and societies under study, as Taromi and others (2018) also states. This cause the male researchers to be more confident about the data presented in their research papers and using more boosters.

In addition, as table 19 shows, there was not a significant relationship between the use of self-mentions and gender of the students. Results of this study does not support Zareifard and Alinezhad's (2014) and Taromi and others's (2018) finding in which MS used significantly more self-mentions than females. The frequency of self-mentions in both groups, i.e., MS (17) and FS (13), is very low. This may designate that MS and FS both try to avoid using this MDMs which is a kind of direct participating in the presentation of the paper data. As they did not consider themselves much skillful in writing the research papers, they may not directly involve themselves in the process of presenting their research data.

As to the data regarding the engagement markers in table 21, there was not a significant relationship between the use of these markers and gender of the students. This result is in line with Tse and Hyland's and Taromi and others's (2018) findings and contrasts with

Zareifard and Alinezhad's results (2014). It seems that both groups prefer to focus on the explanation of their data and not involving the readers in the process of presenting them.

As represented in table 23 and 25, this study's findings indicated that, with regard to interactive and interactional MDMs, gender of the students mostly affected the use of these markers. With regard to the contradictions or similarities in the findings of this research and other research performed in the same area of study, three issues should be considered. The first one is that these students were not the native speakers of English. This, of course, will lead them to write a paper differently from a native speaker. In this regard, Mirshamsi and Allami's (2013) work can be rementioned. They argue that the native speakers of English of their study applied more interactive and interactional MDMs than non-native speakers of English. They believe that these differences "stem from the insufficient awareness of EFL learners of the role of the metadiscourse markers, intercultural differences, and the fact that they do not usually receive explicit instruction on these devices in Persian academic context" (23). The second is the fact that these participants were BS students and novice writers, not a professional one with MA or higher level of education. As D'Angelo's (2008: 214) research clearly reveals this when she asserts:

writing with authority is a skill that is learned through years of practice and the discrepancies observed between expert and novice writers in the corpus clearly reflect such learning process. The present study provides evidence of how women and men change their writing patterns as they proceed in their career and in each domain and further underlines the fact that metadiscoursal resources are extremely important for a scholar attempting to establish his/her writing persona, to gain authority and become a recognised member of a specific academic community.

Finally, most of the mentioned works focused on the research papers published in the valid scientific journals and were not classroom research papers. Although these factors can clearly lead to almost different results, gender's effect on using MDSs cannot be ignored. As Tardy (2006) argues, interactions can be influenced by many factors; one of them is the writer of the text's gender. So, as he adds, male and female writers may not perform the act of interaction with using equal language resources.

With a closer look at the findings of this study, regarding the variable gender, some conclusions can be drawn. The first conclusion is similar to that reached by Tse and Hyland (2008: 1246), who concluded that "[o]ur diverse experiences and memberships of overlapping communities, including those of class, ethnicity and gender, influence how we understand our disciplinary participation and how we want to interact with our colleagues in the performance of a professional academic identity". In addition, as they believe, "[g] ender is an important component of our lived experience and it is unsurprising that it should influence the identities we adopt in our professional writing" (1246). They continue by emphasizing gender's role in using language by people when they assert that "[t]he ways

men and women use a language, in other words, are not determined by their gender but constructed, negotiated, and transformed through social practices informed by particular social settings, relations of power, and participation in disciplinary discourses" (1246). This last statement mentioned by Tse and Hyland (2008) could be a reason for the differences in the results obtained by different researchers studying MDMs regarding the variable of gender. A good example is the contradictory results obtained in different studies regarding the use of "code glosses" by student writers: in Ghafoori and Oghbatalab's (2012) study the male writers gave a higher priority to glossing; in Tse and Hyland's (2008) study the male and female writers showed the same pattern of use regarding code glosses, and in the present study the female writers applied more "code glosses". Therefore, it seems that it is not the gender of the writers but, as Tse and Hyland (2008) pointed out above, the social practices informed by particular social settings, relations of power, and participation in disciplinary discourses which lead to the gender differences in the application of MDMs. The second conclusion is the one reached by Crismore and others (1993). They, having compared the use of metadiscourse in persuasive essays written by American male and female university students, suggested that the use of rhetorical devices of metadiscourse depends on the language users' culture as well as their gender (cited in Ghafoori and Oghbatalab, 2012: 90). The third conclusion relates to Wodak's (2015: 702) statement that "[t]he diversity and complexity of gender roles make clear why an interdisciplinary, qualitative, and context-sensitive approach is necessary to access the whole domain of 'gender and language'". The fourth conclusion is that the number of both interactive and interactional MDMs used by the male and FS of the present study were 2 237 and 2 258, respectively. In spite of some minor differences in the number of the application of some specific MDMs, the male and female writers of the present study applied nearly the same type of interactive and interactional markers. Thus, in line with the results of the study done by Zareifard and Alinezhad (2014), the claim of some Iranian researchers, such as Aghapur and others (2009), describing the higher educational system in Iran as a male-oriented system, cannot be easily accepted. Moreover, as Zareifard and Alinezhad state, the description of university as a male-oriented organization, as it is described for traditional universities like many other older institutions (Acker, 1990; Caplan, 1994), does not seem to fit the present community of practice in Iran. Fifthly, as Hyland (2004) suggests, exploring the interpersonal dimensions of academic writing is appreciated because they disclose the norms and expectations dominating particular cultural and professional communities. Sixthly, according to Bagheri and others (2013), in addition to gender, "different factors may influence the use of MDMs, namely the culture, the writer's preferences, the text, and its genre" (59). And, finally, as it was said in the introduction section based on the statement by Bijami and others (2013: 8), "teachers must be aware of students' characteristics in order to tailor their teaching to needs of learners". One of the areas which is closely related to the characteristics and performance of language learners, according to them, is the role of gender in language learning in general and in writing performance in particular.

6. Conclusion

This study aimed at extracting and classifying the metadiscourse markers (MDMs), both interactive and interactional markers, used in the research papers written in English by senior undergraduate students of translation studies at the University of Sistan and Baluchestan based on Hyland's (2005) interpersonal model of metadiscourse. Findings revealed that, at a macro-level analysis, the students utilized all the strategies such as transitions, frame markers, endophoric markers, hedges and boosters; however, they did not apply some of the strategies at a micro-level analysis, such as linear-chapter/section level, interjections, and questions. Moreover, the Chi-square test results showed that the writers' gender, probably influenced by factors such as social settings and culture, can affect their use of interactive and interactional metadiscourse. In conclusion, one of the areas closely related to the performance of English learners and worth investigating is the role of gender in student writing performance.

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