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Interactional Metadiscourse Markers. A Survey Study on Iranian M.A. TEFL Theses

Ebrahim Abbaszadeh[1]*, Seyedeh Azam Hosseini[2], Mojtaba Aghajani[1]

ABSTRACT
The present study examined the differences in the use, type, and frequency of interactional metadiscourse markers in theses written by M.A. TEFL graduates including 10 males and 10 females from Malayer University. The selected corpus was analyzed using Hyland's in 2005 interactional model of metadiscourse. The data were explored through a manual corpus analysis method using Adobe PDF reader software. Moreover, a Chi-Square statistical measure was run to examine whether there were any significant differences in the use of metadiscourse markers in different thesis chapters and across different genders. The results revealed that although there were some subtle differences in the frequency and types of these metadiscourse markers, there was no statistically significant difference between two genders in the use of interactional metadiscourse markers. Besides, it was concluded that there was a significant relationship between the chapters of theses and the use of metadiscourse markers. The findings of this study render some pedagogical implications for writing courses at M.A. and PhD levels in the realms of TEFL and ESP.

Keywords: Metadiscourse, Interactional markers, Applied Linguistics, M.A. thesis, Gender

1. Introduction

A thesis is the final output and report of an academic investigation. Its form and content are of great significance in academic discourse. Thompson [1] compares these texts as "the longest and most challenging piece of assessed writing". He also asserts that in spite of the importance of theses and dissertations in educational settings, they are still relatively neglected genres in research on academic writing. As it is asserted by Hyland [2]:

The dissertation is a high stakes genre at the summit of a student's academic accomplishment. It is perhaps the most significant piece of writing that any student will ever do, a formidable task of intimidating length and exacting expectations which represents what is potentially achievable by individuals writing in a language that is not their own.

A great deal of time and energy is dedicated in educational centers to teach graduate students how to develop a thesis; therefore, any investigation on writing thesis is of great importance. Metadiscourse plays a vital role particularly at advanced levels of academic

[1]U 1PhD candidate, TEFL, foreign language department, Khatam ol-Anbia University, Iran, Tehran (*Corresponding author).
[2]Kharazmi University, Tehran, Iran.

writing based on the efforts writers carry out to "present and negotiate propositional information in ways that are meaningful and appropriate to a particular disciplinary community" [2]. Harris [3] coined the term metadiscourse and defined it as a way of understanding language in use, demonstrating writer or speaker's efforts to lead a receiver's understanding of a text. A set of discoursal features such as hedges, connectives, and diverse structures of text commentary was accumulated regards with the works of Williams [4], Kopple [5]. The concept of metadiscourse has been defined by a number of scholars. Williams [4] referred to as "writing about writing, whatever does not refer to the subject matter being addressed". The concept of interpersonal metadiscourse is divided into two main categories of Interactive and Interactional markers [6]. Interactive metadiscourse markers have five subdivisions such as transitions, frame markers, endophoric markers, evidential, and code glosses. On the other hand, five groups of interactional metadiscourse markers are presented as following:

- Hedges: Those devices by which "the writer withholds full commitment to a proposition; employed as an index to recognize the alternative voices, viewpoints, and possibilities".
- Boosters: Words which express certainty and highlight the force of propositions [2].
- Attitude markers: Refer to as "the writer's attitude and judgment of the propositional content.
- Engagement markers: Refer to addressing the readers explicitly, "either to focus their attention or include them as discourse participants" [6] through second person pronouns, imperatives, question forms, and asides.
- Self-mentions: Show the degree of explicit author presence and attendance in the text represented through the first person pronouns and possessive adjectives.

The current study aims to answer the following research questions:

1. What interactional metadiscourse markers are employed in Iranian M.A. applied linguistics theses?
2. Is there any statistically significant relationship between thesis writers‟ gender and the frequency of interactional metadiscourse markers employed in Iranian M.A. applied linguistics theses?
3. Is there any statistically significant relationship between the frequency of interactional metadiscourse markers used and Iranian M.A. applied linguistics theses‟ chapters?

2. Theoretical Framework

The present study is theoretically supported by, and is in line with Hyland`s [6] model of interaction, where he suggests a comprehensive model for the interaction between writers and readers. This model by Hyland consists of two major elements of Stance and Engagement. Stance itself is divided to four categorical features such as hedges, boosters, attitude markers, and self-mention. Engagement consists of five elements under the titles of reader pronouns, directives, questions, shared knowledge, and personal asides. The following diagram (Figure1) presents the whole model.

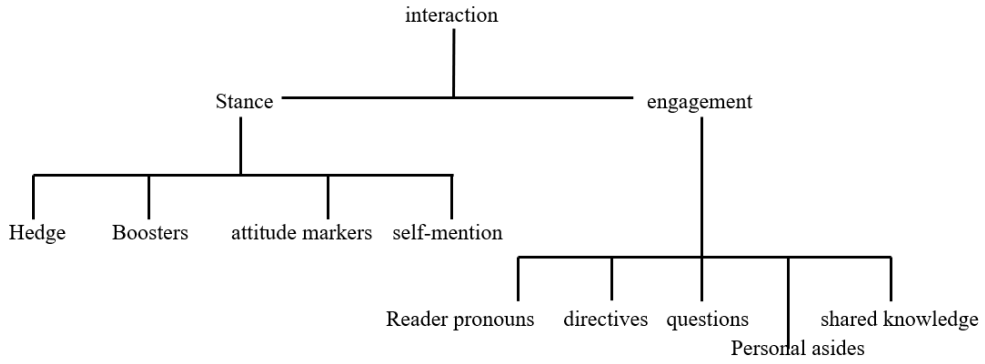

Figure. 1. Hyland model of interactional metadiscourse markers

3. Method

3.1. Corpus

In this study, 20 theses were selected as the corpus needed for conducting the corpus analysis. All these theses were written by Iranian TEFL M.A. graduates from Malayer University. These theses were submitted in a time period from 2013 to 2016, half of which were carried out by male and the other half by female students. Table 1 shows the frequency of the words employed in research corpus across gender.

Table 1. The frequency of the words used in research corpus across gender

Gender	**Chapter 1**		**Chapter 2**		**Chapter 3**		**Chapter 4**		**Chapter 5**		**mean**				
chapter	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Ch.1	Ch.2	Ch.3	Ch.4	Ch.5
Female thesis Writers	1621	3564	7733	13673	1247	3895	4029	15889	670	2514	2487	9979	2007	11101	1383
Male thesis writers	1728	3883	4657	12945	1456	4583	2398	13278	832	1386	2299	8936	3122	6766	1132

The overall frequency of the words counted in all of the theses was 492,120, of which 269,570 (54.77%) were related to these written by female graduates and 222,550 (45.23%) were related to these written by male graduates. The proportion of the words used in the first, the second, and the fifth chapters of the theses is almost alike, but there seems a significant difference between the number of words used in chapter 3 and 4. The words used in the female written theses outnumbered those of male ones in the fourth

chapter of the theses observed in this research. In contrast to female thesis writers, male thesis writers employed more words in the third chapter of the theses. Overall, female thesis writers used more words in chapter 4 compared to the rest of the chapters. Male thesis writers, however, used more words in chapter 2 compared to the other written chapters.

3.2. Data Collection Procedure

In order to investigate the distribution of interactional metadiscourse markers in different chapters of theses, a manual corpus analysis was carried out primarily to provide a qualitative and comprehensive picture of how metadiscourse markers are used in these theses. All 20 M.A. theses were examined meticulously by utilizing Adobe PDF Reader Software program. The metadiscourse markers listed in Hyland`s [6] book were used as the main resource for collecting the required information. (See appendix A for instances of interactional metadiscourse markers). After determining the types of metadiscourse markers employed in different chapters of the theses, the gathered data were quantitatively analyzed in order to identify their frequency of occurrence in the corpus and examine whether there were any statistically significant differences between the two sets of corpus data across two genders.

4. Results and Discussion

Based on the obtained information collected by using Adobe PDF Reader software program, the quantitative values of interactional metadiscourse markers were calculated using frequency count and descriptive statistics. To provide a clear-cut statistical procedure, all raw data were collected by three examiners, so that this study would enjoy an inter-rater reliability because of the same quantitative results obtained from three separated counting procedures. By means of SPSS (Statistical Package for the Social Sciences) statistics software version 21, a set of meaningful interpretations was gathered through a Chi-Square analysis.

4.1. Research question 1: What interactional metadiscourse markers are employed in Iranian M.A. TEFL theses?

In general, to do the analysis for each chapter's markers, first the normality of the data was checked employing Kolmogorov-Smirnov test. Then the descriptive statistics for each marker across all the chapters of thesis were computed. Finally, depending on the normality of the data, parametric or non-parametric repeated measure mean comparison statistics were employed. Since the assumptions for the normality of data were not met, Friedman tests as a non-parametric equivalent of one-way repeated measures ANOVA was employed. Table 2 presents the results of Friedman test, which indicate that somewhere between the groups of markers there is a significant difference ($p < .05$). In order to see where among the groups the significant difference exists, Wilcoxon Signed Ranks tests as a pairwise post hoc test was run.

Table 2. *Test statistics a*

N	20
Chi-square	72.675
df	4
Asymp.sig.	.000
a. Friedman Test	

In order to interpret the results of Wilcoxon Signed Ranks tests, the Bonferroni correction (alpha .05 divided by number of comparisons i.e. 10 = .005) was employed. Accordingly, based on Table 4 and with regard to the descriptive statistics in Table 3, it is realized that the number of engagement markers is significantly larger than all other markers ($p < .005$). The second large frequency belongs to hedges which is significantly larger than all other markers except engagement markers. The difference among attitude, booster and self-mentions, however, is not significant ($p > .005$). Finally, it is shown that self-mention is significantly of the smallest frequency in chapter 1 in comparison to all other markers. Based on Table 4 and with regard to the descriptive statistics in Table 3, it is realized that attitude and self-mention are the only markers which are not significantly different from one another ($p > .05$), but the rest of the markers, with engagement markers as the most frequent and hedges and boosters as the next significantly frequent markers in all chapters, are significantly larger in frequency than attitude and self-mention markers in all chapters. All in all, the above analyses demonstrated that engagement markers are the most frequently used markers both in each chapter and in all chapters in theses. The next ranks belong to hedges, and boosters. Self-mention and attitude markers are also the least frequent markers in both chapters and the whole thesis, with self-mentions as the absolute least frequent marker.

Table 3. Descriptive statistics

	N	**Minimum**	**Maximum**	**Mean**	**Std. deviation**	**Skewness**		**kurtosis**	
	Statistic	Statistic	Statistic	Statistic	Statistic	statistic	Std.error	statistic	Std.error
Total. Hedges	20	160.00	368.00	232.650	69.6240	. 263	.512	-1.370	.992
Total. Attitude	20	17.00	158.00	67.5000	43.3389	.914	. 512	-.134	.992
Total. Booster	20	52.00	250.00	129.900	45.9518	.654	. 512	1.552	.992
Total. Self-mentions	20	7.00	108.00	35.950	29.8672	1.373	.512	.993	.992
Total.Engagement markers	20	430.00	1536.00	884.450	266.5653	. 712	. 512	.462	.922
VALID N (listwise)	20	.							

Table 4. Pairwise comparisons

(I)Markers	**(J) Markers**	**Mean difference (I-J)**	**Std.error**	**Sig.**	**95% confidence interval for difference**	
					Lower Bound	**Upper Bound**

1	2	185.6000	14.561	.000	139.388	231.812
	3	122.750	14.634	.000	76.306	169.194
	4	216.700	16.555	.000	164.158	269.242
	5	-631.800	53.304	.000	-800.973	-462.627
2	1	-185.600	14.561	.000	-231.812	-139.388
	3	-62.850	10.725	.000	-96.889	-28.811
	4	31.100	9.832	.051	-.105	62.305
	5	-817.400	56.343	.000	-996.217	-638.583
3	1	-122.750	14.634	.000	-169.194	-76.306
	2	62.850	10.725	.000	28.811	96.889
	4	93.950	6.886	.000	72.094	115.806
	5	-754.550	56.669	.000	-934.402	-574.698
4	1	-216.700	16.555	.000	-269.242	-164.158
	2	-31.100	9.832	.051	-62.305	.105
	3	-93.950	6.886	.000	-115.806	-72.094
	5	-848.500	59.041	.000	-1035.879	-661.121
5	1	631.800	53.304	.000	462.624	800.971
	2	817.400	56.343	.000	638.583	996.217
	3	754.550	56.669	.000	574.698	934.402
	4	848.500	59.041	.000	661.121	1035.879

Based on estimated marginal means

*. The mean difference is significant at the level of 0.05.

b. adjustment for multiple comparisons: Bonferroni

4.2. Research question 2: Is there any statistically significant relationship between thesis writers' gender and the frequency of interactional metadiscourse markers employed in Iranian M.A. applied linguistics theses?

In order to investigate the answer to this question, in the first stage the number of all the markers in all chapters was worked out. Then, eta as the most appropriate test was utilized the results of which are presented in Table 6 which indicate that there is a significant relationship between thesis writers‟ gender and the frequency of interactional metadiscourse markers employed in Iranian M.A. applied linguistics theses. To have a better view of this relationship Table 5 is checked which indicate that the mean frequency of females (1552) is a lot higher than that of males (1187). That is to say, females tend to use more markers in their thesis writing.

Table 5. Descriptives

	Gender			**Statistics**	**Std. Error**
total	**Male**	Mean		1187.7000	86.91810
		95% confidence interval for mean	lower bound	991.0776	
			Upper bound	1284.2224	
		5% trimmed mean		1176.1667	
		Median		1180.0000	
		Variance		75547.767	

		Std. variation		274.8591	
		Minimum		901.00	
		Maximum		1782.00	
		Range		981.00	
		Skewness		.944	.687
		Kurtosis		1.621	1.334
	Female	Mean		1552.3000	112.2793
		95% confidence interval for mean	lower bound	1298.2065	
			Upper bound	1806.2935	
		5% trimmed mean		1555.333	
		Median		1349.300	
		Variance		1260.456	
		Std. variation		355.0583	
		Minimum		878.00	
		Maximum		2172.00	
		Range		1294.00	
		Skewness		-.212	.687
		Kurtosis		.814	1.334

Table 6. Directional measures

			Value
Nominal by interval	Eta	Gender dependent	1.000
		Total dependent	.518

The above analysis considered the number of all markers in the thesis. To get a more detailed view of the relationship between thesis writers‟ gender and the frequency of interactional metadiscourse markers employed in Iranian M.A. applied linguistics theses, the markers were considered separately in terms of their types. Following the investigation of the relationship between thesis writers‟ gender and the frequency of each type of interactional metadiscourse marker employed in Iranian M.A. applied linguistics theses, it was required to investigate whether males and females differed from one another in terms of the use of each marker across different chapter of applied linguistics theses. Since each chapter of the thesis is of a different length, hence higher chance of the occurrence of markers in longer chapters, it was necessary to compare the relative frequency of the markers in each chapter rather than their absolute frequency. To clarify this issue, take the example of hedge markers in different chapters. Naturally the number of hedges in chapter 1 should be lower than that in chapter 2 since chapter 2 is a lot larger in size than chapter 1; therefore, there are higher chances of occurrence of hedges in chapter 2. If absolute frequency of hedges in these two chapters is compared, definitely this will not be a fair measure. However, if the relative frequency or percentage of hedges in these chapters is computed by dividing the frequency of hedges by the total frequency of all other hedges multiplied by 100 in the same chapter, then comparing the relative frequency or percentage of two chapters will cancel out the effect of chapter length. Given the above explanation, the percentage of each marker type was computed in each chapter, and it was compared with the same marker's percentage in the next chapters. Since gender was also an independent variable, each percentage for a marker in

each chapter was considered as a dependent variable. Then MANOVA was run to compare males and females in terms of each marker across different chapters. Levene's test of equality of error variances was employed and the obtained results on the assumption of homogeneity of variances indicated that the great majority of the data have met the assumption ($p > .05$) (Table 7). Table 9 also presents the main MANOVA results, which show that males and females are not significantly different from each other in terms of the percentage of all marker type across all the chapters.

Table 7. Levene's test of equality of error variances

	F	**Df1**	**Df2**	**Sig.**
Hedg.ch1.rel	2.781	1	18	.113
Attit.ch1.rel	.002	1	18	.969
Boost.ch1.rel	.202	1	18	.659
Self.ch1.rel	.101	1	18	.754
Engage.ch1.rel	1.428	1	18	.248
Hedg.ch2.rel	1.102	1	18	.308
Attit.ch2.rel	.386	1	18	.542
Boost.ch2.rel	1.207	1	18	.286
Self.ch2.rel	.322	1	18	.579
Engage.ch2.rel	1.080	1	18	.312
Hedg.ch 3rel	.834	1	18	.373
Attit.ch3.rel	.498	1	18	.489
Boost.ch3.rel	.498	1	18	.489
Self.ch3.rel	2.960	1	18	.102
Engage.ch3.rel	1.569	1	18	.226
Hedg.ch4.rel	1.663	1	18	.214
Attit.ch4.rel	2.036	1	18	.171
Boost.ch4.rel	5.404	1	18	.032
Self.ch4.rel	1.323	1	18	.265
Engage.ch4.rel	.299	1	18	.591
Hedg.ch 5.rel	4.599	1	18	.046
Attit.ch5.rel	.881	1	18	.360
Boost.ch5.rel	.840	1	18	.372
Self.ch5.rel	11.289	1	18	.003
Engage.ch5.rel	.555	1	18	.466

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: intercept+ Gender

Table 9. Main MANOVA results

Source	**Dependent variable**	**Type III sum or squares**	**df**	**Mean square**	**F**	**Sig.**	**Partial Eta squared**
	Hedge.ch1.rel	17.616	1	17.616	.547	.469	.030
	Attit.ch1.rel	1.283	1	1.283	.137	.716	.008
	Boost.ch1.rel	8.744	1	8.744	.907	.353	.012
	Self.ch1.rel	1.067	1	1.067	.217	.647	.012

Gender	Engage.ch1.rel	.857	1	.857	.015	.903	.001
	Hedge.ch2.rel	30.185	1	30.185	1.040	.321	.055
	Attit.ch2.rel	.556	1	.556	.076	.786	.004
	Boost.ch2.rel	14.907	1	14.907	1.443	.245	.074
	Self.ch2.rel	1.367	1	1.367	.512	.483	.028
	Engage.ch2.rel	95.610	1	95.610	1.542	.230	.79
	Hedge.ch3.rel	.161	1	.161	.004	.947	.000
	Attit.ch3.rel	6.864	1	6.864	.309	.585	.017
	Boost.ch3.rel	6.864	1	6.864	.309	.585	.017
	Self.ch3.rel	24.353	1	24.353	2.113	.163	.105
	Engage.ch4.rel	24.877	1	24.877	.234	.635	.013
	Hedge.ch4.rel	72.803	1	72.803	2.956	.103	.141
	Attit.ch4.rel	6.892	1	6.892	.400	.535	.022
	Boost.ch4.rel	13.938	1	13.938	.782	.388	.042
	Self.ch4.rel	.190	1	.190	.017	.898	.001
	Engage.ch4.rel	208.948	1	208.948	2.255	.151	.111
	Hedge.ch5.rel	23.757	1	23.757	.235	.634	.013
	Attit.ch5.rel	1.608	1	1.608	.074	.789	.004
	Boost.ch5.rel	33.582	1	33.582	.859	.366	.046
	Self.ch5.rel	38.899	1	38.899	3.929	.063	.179
	Engage.ch5.rel	34.690	1	34.690	.37	.551	

4.3. Research question 3. Is there any statistically significant relationship between the frequency of interactional metadiscourse markers used and Iranian M.A. applied linguistics theses' chapters?

This question required the comparison of all thesis chapters in terms of each marker. Therefore, separate headings are provided for each marker across thesis chapters in the following. In general, to do the analysis for each marker across the chapters, first the descriptive statistics for each marker across all the chapters of thesis were computed (Table 10).

Table 10. *Descriptive statistics*

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**	**Skewness**		**kurtosis**	
	Statistics	**Statistic**	**Statistics**	**Statistic**	**Statistics**	**Statistic**	**Std. Error**	**Statistic**	**Std. Error**
Hedg.ch1.rel	20	10.74	29.27	18.63	5.6044	.392	.512	-.889	.992
Hedg.ch2.rel	20	12.28	30.94	18.24	5.3930	1.066	.512	.245	.992
Hedg.ch3.rel	20	7.84	25.86	15.68	5.8312	.332	.512	-1.175	.992
Hedg.ch4.rel	20	10.78	30.34	19.46	5.2120	.413	.512	-.188	.992
Hedg.ch5.rel	20	14.63	47.86	27.41	9.8312	.331	.512	-.804	.992
Attit.ch1.rel	20	.00	12.03	5.1276	2.989	.371	.512	.546	.992

Attit.ch2.rel	20	.67	9.94	4.2938	2.6371	.760	.512	-.360	.992
Attit.ch3.rel	20	3.08	22.88	8.3224	4.6258	1.864	.512	4.290	.992
Attit.ch4.rel	20	.00	12.81	4.5635	4.0859	.674	.512	-1.041	.992
Attit.ch5.rel	20	.00	16.22	4.5669	4.5509	1.296	.512	.912	.992
Boost.ch1.rel	20	.00	12.60	6.7626	3.0973	-.028	.512	.179	.992
Boost.ch2.rel	20	6.07	18.81	9.9625	3.2518	1.392	.512	1.961	.992
Boost.ch3.rel	20	3.08	22.88	8.3224	4.6258	1.864	.512	4.290	.992
Boost.ch4.rel	20	2.53	16.55	9.6219	4.1976	.262	.512	-1.053	.992
Boost.ch5.rel	20	4.26	29.79	11.7992	6.2280	1.125	.512	2.199	.992
Self.ch1.rel	20	.00	7.63	1.8478	2.1696	1.721	.512	2.525	.992
Self.ch2.rel	20	.00	5.54	1.9012	1.6122	.780	.512	-.312	.992
Self.ch3.rel	20	.00	13.29	2.5078	3.4930	1.867	.512	3.727	.992
Self.ch4.rel	20	.00	10.83	2.9421	3.2622	1.460	.512	1.511	.992
Self.ch5.rel	20	.00	12.50	2.0526	3.3801	1.936	.512	3.796	.992
Engag.ch1.rel	20	55.06	78.65	67.6291	7.3296	-.307	.512	-1.064	.992
Engag.ch2.rel	20	46.13	76.94	65.5939	7.9854	-.768	.512	.449	.992
Engag.ch3.rel	20	47.46	87.25	68.7891	10.1078	-.327	.512	-.450	.992
Engag.ch4.rel	20	47.35	83.21	63.4095	9.9398	.264	.512	-.841	.992
Engag.ch5.rel	20	39.06	75.76	54.1711	9.5202	.493	.512	.085	.992
Valid N (listwise)	20								

Then, the normality of the data was checked employing Kolmogorov-Smirnov test. Finally, depending on the normality of the data, parametric or non-parametric repeated measure mean comparison statistics were employed. Wherever, significant differences are found among the chapters, it can be asserted that some significant relationship exists between the frequency of interactional metadiscourse markers used and Iranian M.A. applied linguistics theses‟ chapters. Based on Table 11 and with regard to the descriptive statistics in Table 12, chapter 5 is found to have significantly lower percentage of engagement markers in comparison to other chapters ($p < .05$). The rests of the chapters though do not differ from each other in terms of engagement markers.

Table 11. Pairwise comparisons

(I)chapters	**(J) chapters**	**Mean difference (I-J)**	**Std. error**	**Sig.**	**95% confidence interval for difference**	
					Lower Bound	**Upper Bound**
1	2	2.033	1.839	.290	-1.877	5.947
	3	-1.160	2.245	.611	-5.858	3.538
	4	4.220	2.217	.042	-.421	8.860
	5	13..458*	2.236	.000	8.463	18.453

2	1	-2.035	1.869	.290	-5.947	1.877
	3	-3.195	2.743	.258	-8.936	2.545
	4	2.184	2.576	.407	-3.206	7.575
	5	11.423*	2.094	.000	7.040	15.806
3	1	1.160	2.245	.611	-3.538	5.858
	2	3.195	2.743	.258	-2.545	8.936
	4	5.380*	1.817	.008	1.577	9.182
	5	14.618*	3.104	.000	8.121	21.115
4	1	-4.220	2.217	.072	-8.860	.421
	2	-2.184	2.576	.407	-7.575	3.206
	3	-5.380*	1.817	.008	-9.182	-1.577
	5	9.238*	2.550	.002	3.901	14.576
5	1	-13.458*	2.386	.000	-18.453	-8.463
	2	-11.423*	2.094	.000	-15.806	-7.040
	3	-14.618*	3.104	.000	-21.115	-8.121
	4	-9.238*	2.550	.002	-14.576	-3.901

Based on estimated marginal means
*.the mean difference is significant at the 0.05 level
b. adjustment for multiple comparisons: least significant difference (equivalent to no adjustment)

Table 12. Chapters' means

Chapters	Mean	Std. Error	95% confidence interval	
			Lower bound	Upper bound
1	67.629	1.639	64.199	71.059
2	65.594	1.786	61.857	69.331
3	68.789	2.260	64.058	73.520
4	63.410	2.223	58.758	68.061
5	54.171	2.129	49.715	58.627

The results of this study support the findings of Kuhi et al. [7] who believe that there is no significant difference in the performance of male and female participants in using stance markers (including hedges, boosters, attitude markers and self-mentions). Estaji and Vafaeimehr [8] conducted a research based on the use of metadiscourse markers in the introduction and conclusion sections of mechanical and electrical engineering research papers and found that attitude markers were the least frequent metadiscourse marker type and the boosters the most frequent ones used by both majors in introduction part of papers; however, the use of metadiscourse markers were more frequent in the conclusion section of Electrical Engineering research articles in which boosters were again the most frequently employed metadiscourse marker and attitude markers were the least used ones. These findings do not support the obtained results of this study which demonstrate that the most frequently used metadiscourse marker by participants in all chapters of the examined theses is engagement marker. The findings of this research are in line with the study carried out by Ebadi et al.[9] based on the use of metadiscourse in Persian and English academic papers. Their results demonstrated that among all interactional metadiscourse markers self-mentions are the least frequent metadiscourse markers employed by native Persian researchers. This study concurs with the findings of the research carried out by Tajeddin and Alemi [10], which showed that

although female EFL learners employed more metadiscourse markers than males did, the differences were minor and hence gender did not significantly affect the use of interactional metadiscourse markers.

5. Conclusions and Implications

A thesis or dissertation written at the final stage of any academic degree program would be regarded as the most influential outcome through which one can provide and express his or her depth of knowledge. By means of the written thesis, writers could be able to reflect on the extent of their perseverance and involvement in a "dynamic form of textual interaction where writers make research claims, express a stance, and get their voice heard". As the quantitative analysis of the data reveals, females tend to use more markers in their thesis writing. Female thesis writers use interactional metadiscourse markers more than male ones. The findings also indicated that, overall, participants used engagement markers more than the other metadiscourse markers in each chapter and in all chapters of theses. It was revealed that self-mention markers were regarded as the absolute least frequent marker. Gender is significantly correlated with the frequency of hedges and engagement markers, of which females tend to use more engagement and hedges markers than males do. The findings also depicted that males and females are not significantly different from each other regarding the percentage of all marker types across all the chapters. The following results were inferred from the comparison of all thesis chapters in terms of each marker. Chapter 5 is found to have significantly larger percentage of hedges in comparison to other chapters. There are no marked differences among other chapters regarding the use of hedges. The highest and the lowest percentage of attitude markers are related to chapters 3 and 2, respectively. Chapter 5 is mentioned to have significantly larger percentage of boosters in comparison to other chapters. The lowest percentage of boosters is related to chapter 1. The least percentage of engagement markers is found in chapter 5. Other chapters have no differences regarding the percentage of engagement markers. Interestingly, no significant difference was revealed in regard with the chapters and the used percentage of self-mention markers. Estaji and Vafaeimehr [8] state that:

Students are highly required to become well-acquainted with the techniques leading to further cohesion and coherence in the text. In particular, the instruction and analysis of the texts focusing on the genres and interactional metadiscourse markers employed in different contexts can help students to better organize their texts and guide their readers.

The findings of this study provide some insights into an urgent need to persuade and encourage English language teachers, professors, and those publishers in the realms of TEFL and ESP to make an effort to provide English learners with appropriate sources and settings to enhance the level of familiarity with different types of metadiscourse markers which would prepare them for producing coherent writings and establishing true interaction with other readers and addressees.

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