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Frame Markers in Master Thesis Abstracts Written in English and Turkish

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Abstract

This corpus-based research aims to identify frame markers (FMs) in master thesis abstracts written in English by English native and non-native postgraduate students and in Turkish by Turkish native students in terms of frequency and functions. To this end, 60 master thesis abstracts were compiled in a corpus. Data were analysed both quantitatively and qualitatively via AntConc.3.2.4 based on Hyland (2005)'s taxonomy of functions (sequencing, labelling stage, topic shift and announcing goal). Findings of the study yielded significant variation among three groups. Non-native English abstracts included the highest numbers of FMs and most diverse types whereas native English abstracts included the least numbers and very few types. Considering FM categories, items used to announce the goal of the writer abounded in number and types in all groups whereas items for indicating topic shifts almost did not occur. Only native speakers of Turkish employed FMs for the function of labelling stages to indicate the discourse act at the end paragraph of their abstracts. These findings are hoped to create awareness among native and non-native postgraduate students in thesis abstract organization via FMs and incorporating FM teaching into academic writing courses to help students structure their discourse better.

İngilizce ve Türkçe Dillerinde Yazılmış Yüksek Lisans Tez Özlerinde Kullanılan Çerçeve Belirleyicileri

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Öz

Bu derlem-temelli araştırmanın amacı, anadili İngilizce olan öğrencilerin, anadili Türkçe olan öğrencilerin ve İngilizce'yi yabancı dil olarak öğrenen Türk öğrencilerin yüksek lisans tezi özlerinde çerçeve belirleyicilerini kullanım sıklığı ve işlevleri açısından incelemektir. 60 özden oluşturulan bir derlemde, çerçeve belirleyicileri Hyland (2005)'in modeline göre AntConc aracılığıyla nicel ve nitel araştırma yöntemleri kullanılarak incelenmiştir. Çalışma bulguları, üç grup öğrencinin çerçeve belirleyicilerini kullanımlarında farklılık olduğunu göstermiştir. İngilizce'yi yabancı dil olarak öğrenen öğrencilerin çerçeve belirleyicilerini diğer gruplardan çok daha fazla sıklıkta ve çok çeşitli türde kullandıkları görülmüştür. Ayrıca, metin aşamalarına gönderimde bulunulan belirleyiciler arasında özellikle özün son paragrafına gelindiğini belirten belirleyiciler, yalnızca anadili Türkçe olan öğrencilerin Türkçe tez özlerinde görülmüştür. Analizlerden elde edilen sonuçlar doğrultusunda, bu araştırma, lisansüstü öğrencilerin anadillerinde ve öğrendikleri yabancı dilde yazdıkları akademik metinlerde çerçeve belirleyicilerini kullanımlarına yönelik ve dilsel ifadelerin diller arası farklılıklarına ilişkin farkındalık uyandırmayı hedeflemektedir.

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Introduction

As a crucial type of academic writing at postgraduate level, thesis writing poses a great challenge for novice student writers due to the absolute size of the text, the complexity in organizing the research, and the sustainment of coherent arguments (Thompson, 2013) and such an endeavor puts tremendous efforts on them in terms of linguistic aspects and pragmatic concerns to create interaction and to meet rhetorical expectations of different discourse communities. Concerning thesis abstract writing, this endeavor becomes twice magnified in that novice writers, especially non-native writers, need more assistance since they are expected to adhere to features of abstract writing and English language for the specific communicative setting with an awareness of patterns favored by this type of writing (Farjami, 2013). One way to achieve this and produce effective writing is the use of linguistic resources and specifically frame markers (FMs) among metadiscoursal devices. FMs, an essential component of written discourse, provide framing information about 'text boundaries or elements of schematic text structure' (Hyland & Tse, 2004: 168). FMs, which are the best representatives of organizational structure of discourse (Hempel & Degand, 2006), are used to serve four different functions consisting of labelling text stages *(i.e. to conclude),* indicating topic shift *(i.e. as for, in terms of*), sequencing (i.*e. to begin with, lastly, then)* and announcing the goal of writers (*i.e. my purpose, focus)* (Hyland, 2005). Despite their various types and functions in academic writing, non-native students experience difficulties in effective use of these markers and they rely on limited number of markers due to the lack of emphasis on the usefulness of FM in processing and structuring texts in educational settings. In this respect, few studies analyzed functions of FMs in postgraduate students' writings. What is more, far less attention has been given to master thesis abstracts and the research conducted in especially Turkish context is relatively little. To fill the gap in the relevant literature, an insight into this issue would contribute to the significance of the study to gain in-depth understanding of how FMs are manifested in the most significant piece of master theses, that is, abstracts, written by Turkish native students and English native and non-native students.

So, this research aimed to highlight how postgraduate students organized their abstracts through FMs with different types, frequency and functions in their native languages (i.e. English and Turkish) and non-native language (i.e. English) and to clarify the dis/similarities among three different groups of discourse societies.

Theoretical Background

Discourse analysis, defined as 'the way of studying language in action, looking at texts in relation to the social contexts in which they are used' (Hyland, 2009a: 20), has become a central tool for identification of certain language features in genres written by particular members of their community (Hyland, 2009b). Its main concern is the communication and conveyance of ideas through language use and the interaction between the language and particular social or cultural societies among whom the language is used (Paltridge, 2006). In this regard, discourse analysis has gained an increasing attention from scholars, in which the concept of *metadiscourse* has been widely used (Hyland, 2010). Metadiscourse has been a 'fuzzy term' as it was defined by various researchers in different ways. Defining it as 'simply an author's discoursing about discourse', Crismore (1983: 2) states that it is 'the author's intrusion into the discourse, either explicitly or non-explicitly, to direct the reader rather than inform'. Valero-Garcės (1996) defines it as metatext referring to linguistic units ranging from affixes to sentences and text-level rhetoric features. Hyland (1998; 2005) asserts that some of these definitions are restricted to textual and rhetorical organization (Mauranen, 1993; Valero-Garcės, 1996) and some others are partial and restricted to 'simply discourse about discourse' or 'talk about talk' (i.e. Crismore, 1983; Vande Kopple, 1985). Therefore, he provides a comprehensive definition of the term and his notion was adopted in this study. Accordingly, metadiscourse refers to 'the cover term for self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community' (Hyland, 2005: 37).

Hyland (2005) based his interpersonal model of metadiscourse on two dimensions: interactive and interactional. Accordingly, in the former, concerning the organization of discourse, the writer's aim is to shape and constrain a text to meet the needs of readers and goals and it consists of five resources: transitions, frame markers, endophorics, evidentials and code glosses. In the latter, concerned with the writer's intrusion and comment on his/her message to have interaction with readers, the writer's aim is to show his/her views explicitly and construct the text in collaboration with reader by allowing him/her to respond to the unfolding text and it is comprised of five resources: hedges, boosters, attitude markers, self-mentions and engagement markers.

Metadiscourse resources are the most salient features of discourse organization and they lead addressees to receive high level of awareness and engagement (Shokouhi & Baghsiahi, 2009; Alavinia & Zarza, 2011). Among these resources, FMs were examined within the scope of this research. Hyland and Tse (2004: 168) define FMs as 'references to text boundaries or elements of schematic text structure', which serve four main functions. These functions include topic shifts (*i.e. now, so*), ordering ideas, counter/arguments or sequencing parts of texts (*i.e. first/ly, second/ly, next, another*), announcing the goal of the writer *(i.e. my focus is, want to*) and labelling text stages (*i.e. in sum, briefly*) (Hyland, 2005).

FMs constitute an important part of academic writing, specifically, abstract writing. An abstract is the most significant part of a thesis or article as a representative of a whole research paper that is read first and it is said to "sell the article" (Pho, 2008:231). An abstract has been proved to constitute a genre in its own right as it has certain features that differ it from the main body of the research with regard to its thematic, rhetorical and lexical structure (Farjami, 2013). Abstracts are 'screening devices' (Huckin, 2006: 93) and they summarize the central focus in an academic text (Ülker Eser, 2012). Hence, the use of language in abstracts is of significant value for the establishment of interaction between readers and writers, the persuasion of readers about the importance of the study and the organization of the points to be introduced, which is achieved through metadiscourse resources.

Literature Review

An overview of studies on metadiscourse demonstrated that metadiscourse resources varied across different text types such as newspapers (Dafouz-Milne, 2008), textbooks (Hyland, 1999), research articles (Kim & Lim, 2013), academic essays (Bruce, 2010; Li & Wharton, 2012), argumentative essays (Ädel, 2006; Rustipa, 2014) and theses/dissertations (Hyland, 2010; Akbaş, 2012a; 2012b; Özdemir & Longo, 2014) produced by native and non-native writers of English and writers with different L1 background in terms of frequencies and functions. Although these studies concentrated mostly on the overall frequency of metadiscourse use, they lacked the documentation of the functional analysis of the items. Apart from that, a wide range of studies devoted their attention to the analysis of interactional metadiscourse (i.e. García-Calvo, 2002; Lee, 2006; Mei, 2007; Fu, 2012; Sukma & Sujatna, 2014). Nevertheless, interactive dimension of metadiscourse and specifically FMs still need to be highlighted due to their contribution to the structuring of written discourse because of various purposes realized by these markers.

There is a scarcity of research which focused on the written products of postgraduate students with an emphasis on FMs. Among few studies, for instance, Burneikaitė's (2008) study revealed that text connectives and discourse labels that served FM functions were among the frequently used markers in postgraduate writings produced by Lithuanian non-native writers of English compared to British native students. An in-depth function analysis demonstrated that these markers were mostly used to signal explicit structuring of discourse and text stages rather than to announce the goal of writers. In another study, Burneikaitė (2009) focused on metadiscoursal use of connectors including sequencers, a sub-category of FMs in English master theses and found over-reliance of Lithuanian learners of English on these markers.

Additionally, among few contrastive studies on metadiscourse in master theses, Marandi's (2003) study yielded no significant difference in terms of frequency of FMs in master theses of native Persian and native English writers and Persian speakers of English. Reminders *(e.g. this study aimed to*) in his

typology of metadiscourse, which refer to the announcements in Hyland's (2005) taxonomy, had higher numbers of instances in discussion sections compared to introductions which in contrast included higher intention markers (*e.g. I conclude, in the next chapter we will discuss*), that are labelling items. Further, topicalizers in Marandi's typology, that are topic shift items, were scarcely used by all groups. In another study, Mirshamsi and Allami (2013) analyzed Persian and English master theses in terms of metadiscoursal features which resulted in FM occurrence in similar percentages in both groups. Thirdly, a recent study focusing on English and Spanish concluded that results and discussion sections of Spanish writers included more FMs than those of English writers (Lee & Casal, 2014).

Considering abstracts, their analysis has not received its deserved place in the literature (Ülker Eser, 2012). Among few studies, their main foci were general rhetorical organization and thematic structure (Lorés, 2004), discourse structure (Graetz, 1982), and rhetorical moves and/or variation (Santos, 1996; Martin-Martin, 2003; Ren & Li, 2011; Ülker Eser, 2012). There has been far less focus on the analysis of metadiscourse use in abstracts (e.g. Akbaş, 2012a; Karimi, et al., 2017; Wang & Zhang, 2016). Far less attention has been paid to the productions of master students compared to those of PhD students. In fact, it is mostly the graduate students who experience far more difficulties and require more assistance in writing master theses since they are less acquainted with this sort of academic writing (Lee & Casal, 2014). For instance, Akbaş (2012a) analyzed metadiscourse resources in dissertation abstracts written by native and non-native writers of English and native speakers of Turkish. Regarding FM use, native English abstracts included the highest frequency of FM use whereas native Turkish abstracts included the lowest frequency of occurrence. On the other hand, in their comparative study, Özdemir and Longo (2014) found out that Turkish students' master thesis abstracts included higher numbers of FMs compared to the American ones. Considering these inconsistencies and the scarcity of research on MA theses in analysis of master theses and dissertations, there is a necessity for more research in the exploration of how post-graduate students organize their ideas through linguistic resources specifically FMs.

To conclude, an insight into FM use through this comparative and contrastive research is expected to highlight whether there is any tendency of writers to follow a certain linguistic or cultural pattern of use that is typical of the discourse community they belong to and the way how these writers with different L1 differ from each other in terms of their performance that might stem from their mother tongue and cultural expectations of their societies. To this end, this study does an in-depth investigation of FMs in master thesis abstracts of native speakers of Turkish (NST), native speakers of English (NSE), and Turkish speakers of English (TSE) and aims to compare and contrast three groups by examining the types, functions and frequencies of FMs. The following research questions were formulated:

1. Do NST, NSE and TSE follow a certain linguistic or cultural pattern of FM use that is typical of the discourse community they belong to in their master theses' abstracts?
2. Do the postgraduate students with English L1 and Turkish L1 differ from each other in terms of cross-linguistic and cross-cultural performance?

Method

Research Design

In the current study, mixed-methods research design was adopted. It is a procedure in which both qualitative and quantitative methods were used in combination and it provides in-depth understanding of the research problem (Creswell, 2012: 535). In the present study, both qualitative and quantitative document analyses were carried out and text linguistics methods were applied. Qualitatively, each FM used in abstracts was identified and its function was determined in the context it occurred. Quantitatively, FMs were calculated in terms of overall frequency and functions and then they were compared and contrasted among three groups of master theses' abstracts.

Data Collection

For the purposes of the study, a specialized corpus was compiled from the master thesis abstracts written in English and Turkish. Here, the term 'corpus' is defined as 'a collection of texts that are compiled for a purpose and stored and accessed electronically' (Hunston, 2002: 2-3). It is specialized in that it was built for a specific purpose to explore the use of particular items and it includes the texts written specifically for analysis in a particular genre, i.e. master thesis abstract writings. In this sense, small specialized corpus yields valuable insights into the texts specifically the patterns of language in use in particular settings (Koester, 2010: 67).

The corpus of the study consisted of a total of 60 master thesis abstracts written by three groups of graduate students in English and Turkish. Specifically, 20 master theses written in Turkish by NST and 20 theses written in English by TSE at different universities in Turkey were extracted from the Turkish National Thesis Centre (YÖK, the website of https://yoksis.yok.gov.tr). Then, 20 theses written in English by NSE were collected from different universities in the United States and England via ProQuest Dissertation and Thesis database and google search. All these master theses were written between 2008 and 2014.

To limit the scope of the data, these texts were obtained from a single discipline, i.e. Social Sciences. Abstracts are asserted to be the 'significant carriers of a discipline's epistemological and social assumptions' (Hyland, 2000: 63; as cited in Ren & Li, 2011) and writing norms are specific to the discipline within which the language is used (Pooresfahani et al., 2012). In this sense, abstracts might show variation across different disciplines in terms of language use as well as FMs. To hinder possible factors of this variation on the findings, data were chosen from only Social Sciences to explore one particular field and from the subfields of English Language Teaching, Turkish Language Teaching, Turkish Language and Literature Teaching and Teaching English to Speakers of Other Languages (TESOL). For the comparability of the three sub-corpora, theses were selected based on the research design since there might also arise variations in the organization and reporting as well as FM use across theses with different research designs. Thus, each thesis was determined based on the criteria that each study would have both qualitative and quantitative research methods, not either.

The numbers of words in each of NSE, NST and TSE sub-corpora were calculated and the total word sizes were respectively 4065, 4923 and 5721 words.

Data Analysis

To begin with, each group of master thesis abstracts were compiled in three separate word-document files. The format of the files was converted into plain text file (txt.) to be used in text analysis and concordance tool called AntConc. 3.2.4. This program allows researchers analyze all occurrences of items in their own contexts with their contextual information and it also helps them manually and automatically calculate the frequency of occurrences. For identification of FMs, each item detected was analyzed and categorized based on the function it served as a FM based on Hyland's (2005) taxonomy. Items which did not serve the function of FMs and which occurred in quotations were discarded from the search. During this process, a list of FMs compiled from the lists of some scholars (e.g. Aertselaer, 2008; Anwardeen et. al., 2013, Hyland, 2005; Mur-Dueñ˜as, 2011) and the ones detected in the data were also analyzed.

During this process, peer-debriefing method was employed for interrater reliability. It is 'a widely accepted and encouraged method to improve the credibility of qualitative research' (Barber & Walczak, 2009: 4). Based on this method, the researcher analyzed 25 % of the data, i.e. 15 randomly selected abstracts in collaboration with another researcher who was peer-debriefer by reading each context line-by-line. Then, both resolved the discrepancies related to the problematic or disagreed items.

Lastly, FMs were calculated in terms of raw numbers and percentages. FMs with different functions were counted in terms of frequency of use. Since the word sizes of three sub-corpora were not equal, they were normalized to per 1000 words for comparison to reveal dis/similarities in terms of frequency

and functions. For statistical analysis, one-way ANOVA and Post-hoc tests were run to find out if there were statistically significant differences in FM use across three groups.

Results and Discussion

FMs Employed by Postgraduate Students in Master Thesis Abstracts

The analysis of FMs used in the abstracts showed that NSE, TSE and NST used 18, 34, and 26 different types of items in their abstracts respectively as depicted in Table 1 below.

Table 1.
FM use in abstracts

FM functions	Native English corpus	Non-native English corpus	Native Turkish corpus
Sequencing	second, final, one, another, then, other	first, firstly, second, secondly, third, final, finally, lastly, one, another, next, then, part, section	ilk/olarak (first of all), birinci/olarak (first/ly), iki/ikinci olarak(second/ly), üçüncü olarak(thirdly), dört/dördüncü olarak (forth/ly), beş/beşinci olarak (fifth/ly), diğer (another), bir (one), sonra/daha sonra (then, next), bölüm/de (in this part)
Labelling text stage	overall	to sum up	son olarak (finally), sonuç olarak (after all), araştırma/çalışma sonucunda (as a result of this research)
Topic shift	-	so, as for, in terms of, with regard to, regarding	değerlendirildiğinde (considering), bakıldığında (in terms of)
Announcing the goals	in/this study, in/this research, in/this paper, aim, goal, examine, investigate, discuss, in the present study, purpose, seek to	in/this study, this thesis, section, part, aim, concern, examine, investigate, explore, discuss, the present study, try to, find out, purpose	bu araştırmada (in this research), bu çalışmada (in this study), bu amaç/la (purpose), amacıyla, amaçlamak (aim), hedef/lemek (target), çalış/ılmak (try), denemek (attempt), araştır/ılmak (investigate), incelemek (examine)

Considering overall and categorical analyses of FMs, three groups used FMs in different frequencies. Table 2 provides an overview of FM occurrences in each sub-corpus and statistical test results.

Table 2.
Overall and categorical frequency distribution of FMs in abstracts

	Native English corpus	Non-native English corpus	Native Turkish corpus	ANOVA Results Sig.
Corpus size	4065 words	5721 words	4923 words	
Total FM occurrence	46	131	93	.000*
Token per 1000 words	11,3	22,89	18,89	

The results of the study yielded great discrepancy among the three groups in terms of overall FM employment. In Table 2, based on raw numbers and normalized frequencies, TSE were found to employ FMs with the highest frequencies in English abstracts whereas NSE used them with the lowest frequencies among the three groups. TSE stood between the two groups in FM use. ANOVA test results revealed that there were statistically significant differences among three groups. Post Hoc test was run to reveal the differences among the three groups in total FM use as indicated in Table 3.

Table 3.
Post-Hoc Test Results of Significance Between- Subjects Effects Regarding Total FM use

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
NST	NSE	2.400*	.674	.002*
	TSE	-1.900*	.674	.018*
NSE	NST	-2.400*	.674	.002*
	TSE	-4.300*	.674	.000*
TSE	NST	1.900*	.674	.018*
	NSE	4.300*	.674	.000*

*significant at the .05 level.

Table 3 above shows that there were statistically significant differences among all groups regarding total FM use. One parallelism observed between the current research and the earlier studies was that NSE employed FMs far less frequently than the writers with different L1 such as Turkish students (Özdemir & Longo, 2014), native Spanish (Lee & Casal, 2014) and Persian non-native students (Mirshamsi & Allami, 2013). Burneikaitė (2008) also found that text-organizing metadiscourse resources including discourse labels and text connectives that served some of the FM functions in this study were heavily and excessively used by Lithuanian postgraduate students in master theses compared to British ones. However, this finding contrasts with the finding of Akbaş's (2012a) study in that NSE had the highest frequency of FMs in their theses whereas it was the Turkish non-native learners of English that employed the least numbers of FMs in his study. Similarly, in Karimi et al.'s (2017) study, Persian writers of research articles were found to use fewer numbers of FMs in their English abstracts compared to English native speakers.

Besides total frequency analysis, further analysis of FM categories based on functions is provided in Table 4.

Table 4.
Categorical frequency distribution of FMs in three sub-corpora

Category	Native English corpus		Non-native English corpus		Native Turkish corpus		ANOVA
	Total	per 1000 words	Total	per 1000 words	Total	per 1000 words	Sig.
Sequencing	7	1,72	39	6,81	30	6,09	.016*
Labelling stage	1	0,24	1	0,17	13	2,64	.000*
Topic shift	-	-	7	1,22	3	0,60	.027*
Announcing the goal	38	9,34	84	14,68	47	9,54	.000*
Total	**46**	**11,3**	**131**	**22,89**	**93**	**18,89**	**.016***

*significant at the .05 level.

Table 4 above depicts that there were statistically significant differences across three groups in four FM types. Among four functions, the category of announcing the goal had the highest frequency of occurrence in all three sub-corpora whereas the categories of topic shift and labelling stages had the lowest frequency of use. One parallelism between the current study and Marandi's (2003) study is that topic shift items were barely used by all thesis writers in both studies, that were, the English native, Persian native and Turkish native writers.

Considering the frequencies of four FM categories from the most frequently used one to the least frequently used, both NSE and NST corpora were found to have the same order of FM categories (announcing goal, sequencing, labelling stage and topic shift). Regarding non-native English corpus, the frequency distribution of FMs from the highest to the least used ones was announcing goal, sequencing, topic shift and labelling text stage. Considering post hoc test results, it was revealed that there were statistically significant mean differences between groups in terms of FM sub-types. These differences were presented in Appendix A.

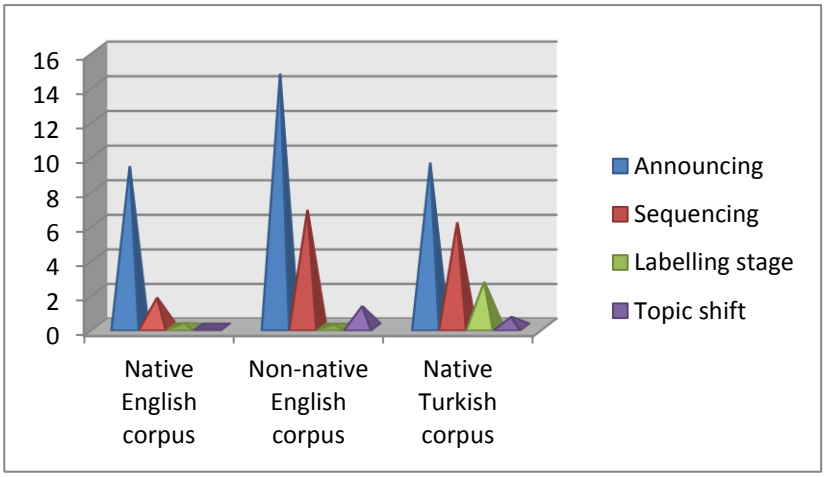

Figure 1. Frequency distribution of each FM category in abstracts (per 1000 words)

Figure 1 above displays that TSE abstracts included the highest numbers of instances in terms of each category except for labelling stage. On the other hand, NSE abstracts included the lowest numbers of instances in each category. One similarity between the current research and the study of Burneikaitė

(2009) was that Turkish and Lithuanian non-native learners employed sequencing items more frequently in their English products compared to English native students.

In terms of item variety, TSE employed the most diverse types with 34 items including 16 types of announcing items, 14 types of sequencing items, 5 types of topic shift items and only 1 type of labelling item. Regarding NST sub-corpus, it ranked the second after TSE sub-corpus in terms of FM variation and it included 26 different types of items consisting of 10 types of sequencing items, 10 types of announcing items, 4 types of labelling stage items and 2 types of topic shift items. Finally, NSE data included the least diverse FM items with a total of 18 different FMs compared to Turkish postgraduate students' abstracts in English and Turkish abstracts. In quantitative terms, it consisted of 11 different types of announcing items, 6 types of sequencing items and only one type of labelling item. The item of topic shift did not occur even once in the native English data.

In sum, Turkish postgraduate students used more diverse types of FMs in their English and Turkish abstracts compared to English native speakers. Figure 2 provides a visual presentation of comparison across four FM categories in terms of diversity.

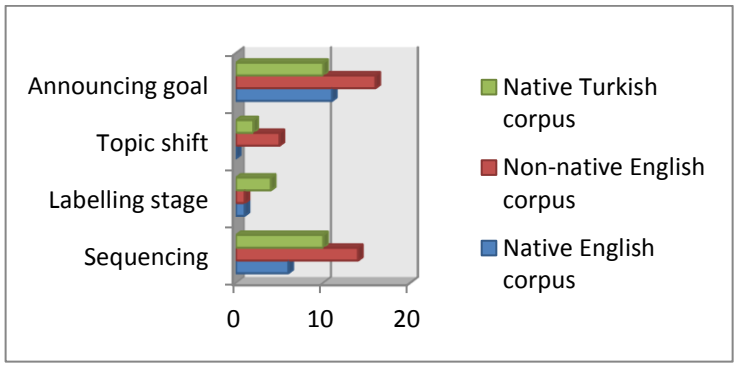

Figure 2. Diversity of FM item types per category in abstracts

According to Figure 2, the category of announcing the goal and sequencing had more diverse types of items while the categories of labelling text stage and topic shift included quite less variation in all abstracts.

An In-depth Analysis of FM Items Used in Abstracts

Firstly, the results of the sequencing items used in the abstracts are displayed in Table 5.

Table 5.

Sequencing items in abstracts

Sequencing Item	NSE Raw no.	NSE Per 1000	TSE Raw no.	TSE Per 1000	Sequencing Item	NST Raw no.	NST Per 1000
firstly	-	-	4	0,6	*ilk/ olarak*	1	0,2
first	-	-	3	0,5	*birinci*	1	0,2
secondly	-	-	3	0,5	*iki/ikinci olarak*	3	0,6
second	1	0,2	3	0,5	*üçüncü/olarak*	2	0,4
third	-	-	1	0,1	*dördüncü*	1	0,2
finally	-	-	7	1,2	*beş/beşinci*	3	0,6

final	1	0,2	1	0,1	*diğer*	2	0,4
lastly	-	-	1	0,1	*bir*	2	0,4
one	2	0,4	1	0,1	*sonra*	1	0,2
another	1	0,2	1	0,1	*bölüm/de*	14	2,8
next	-	-	2	0,3			
then	1	0,2	4	0,6			
part	-	-	6	1,0			
section	-	-	2	0,3			
other	1	0,2	-				
Total	**7**	**1,7**	**39**	**6,8**		**30**	**6,0**

In Table 5, the findings of analysis yielded significant difference among postgraduate students in the use of sequencing items. Specifically, Turkish postgraduate students employed them in their native and non-native products far more frequently than English native counterparts. The following instances were extracted from each group.

1.a. *Firstly,* the factors that constitute the reading motivation in Turkish and English were explored... *Then,* the relationship … was investigated. *Next*, the relationship ..was analyzed separately…. *Finally,*... (TSE)

1.b. *One group* of participants was provided traditional English marginal glosses to the left of the reading while *the second group* of students was provided ... (NSE)

1.c. Veri toplamak için oluşturulan anket *iki bölümden* oluşmuştur. *Birinci bölümde* mesleki ve kişisel bilgiler bulunmaktadır. *İkinci bölüm* ise ..ifadeler yer almaktadır. (NST)

(The questionnaire designed for data collection consists of two sections. *The first section* includes occupational and personal information. *The second section* includes statements like….)

The postgraduate students made use of sequencing items to explain the reasons or aims for conducting their research as illustrated in the extract obtained from TSE data in 1a, to introduce different groups of participants in the study as illustrated in the extract of NSE data in 1b and to define the parts of a questionnaire used in the study to collect data as illustrated in the NST extract in 1c.

Secondly, Table 6 displays the items used to announce writer goals in abstracts.

Table 6.
Items of announcing goals in abstracts

Announcing goal	NSE		TSE		Announcing goal	NST	
Item	Raw no.	Per 1000	Raw no.	Per 1000	Item	Raw no.	Per 1000
in/this study	23	5,6	24	4,1	*bu/araştırmada*	4	0,8
this thesis	-	-	3	0,5	*bu/çalışmada*	6	1,2
section	-	-	2	0,3	*bu amaç/la*	9	1,8
part	-	-	6	1,0	*amacıyla*	10	2,0
aim	3	0,7	13	2,2	*amaç/lamak*	5	1,0
concern	-	-	2	0,3	*hedef/lemek*	1	0,2
goal	1	0,2	-	-	*çalış/ılmak denemek*	3	0,6

in this research	1	0,2	-	-	*araştır/ılmak*	2	0,4
examine	1	0,2	3	0,5	*incelemek*	7	1,4
investigate	2	0,4	5	0,8			
try to	-	-	2	0,3			
explore	-	-	10	1,7			
discuss	1	0,2	1	0,1			
seek to	1	0,2	-	-			
present/the present study	1	0,2	3	0,5			
purpose	3	0,7	3	0,5			
in this paper	1	0,2	-	-			
find out	-	-	7	1,2			
Total	**38**	**9,3**	**84**	**14,4**		**47**	**9,5**

According to Table 6, TSE used FMs frequently to announce their goals explicitly whereas both native English and native Turkish students did not use these items as frequently as TSE. For example, the item *'in/this study'* that had the highest frequency of use in both native and non-native English corpora is illustrated below.

2.a. *This study seeks to* determine the effectiveness of textual glosses enhanced with modified…. (NSE)

2.b. *In this study,* it was *aimed* to gain insights about English Language instructors' attributions for their students' success…(TSE)

In extract 2a, '*this study seeks to'* is used to express the goal of researcher in writing the thesis and in 2b, '*aim'* is used by Turkish writer to announce the goal to the audience on what topic s/he focused in his/her thesis.

Table 6 above also shows that there is a significant difference between NSE and TSE groups in that the item *'aim'* was the second most frequently used item in TSE corpus whereas it occurred only three times in NSE data. Regarding NST data, it had the highest frequency of use among other items used for this function.

Another remarkable finding was that there was a difference among three groups in abstract organization regarding goal announcement. Based on the manual analysis of abstracts, it was observed that out of 20 NST abstracts, 12 abstracts started with the announcement of the writer's goal in writing theses. This means that Turkish native speakers mostly preferred to explicitly state their aims in conducting their research at the beginning of their abstracts. In the rest of abstracts, Turkish writers provided background information prior to the statement of the goal of the study in their abstracts. Similarly, TSE announced their goals via FMs at the beginning of 12 English abstracts. Similar to the findings obtained from Turkish native data, the rest of TSE started their abstracts with the presentation of general scope of their studies and provided background information and then stated their goals by using FMs. Likewise, in the study conducted by Akbaş (2012b) in which the author focused on metadiscourse use in abstracts produced by TSE, NST, and NSE found that Turkish students mostly started their abstracts with FMs (such as *this study explores, bu araştırmada)* to announce the goal in Turkish and English abstracts.

Considering the English native data, 7 out of 20 abstracts introduced the main concern of the study at the beginning whereas 13 abstracts provided a brief presentation of the topic as background information.

Thirdly, the analysis of 'labelling text stage' items in abstracts is presented in Table 7.

Table 7.
Items of labelling stages in abstracts

Labelling stage Item	NSE Raw no.	Per 1000	TSE Raw no.	Per 1000	Labelling stage Item	NST Raw no.	Per 1000
to sum up	1		-	-	*sonuç olarak*	1	0,2
overall	-	-	1		*görüşmeler/analizler sonucunda*	2	0,4
					araştırma/çalışma sonucunda	9	1,8
					son olarak	1	0,2
Total	**1**	**0,2**	**1**	**0,1**		**13**	**2,6**

Table 7 above displays that 'labelling stages' had few instances in all three sub-corpora. NST labeled the end stage of their abstracts with the use of '*araştırma sonucunda' (at the end/as a result of the research*) and especially the item *–e göre* (according to) instead of using adverbials such as *brief/ly,* and *in conclusion* at the initial position, which might result from the idiosyncrasy of the Turkish language and their way of expressing the results of the study. There are instances drawn from NST corpus below.

3. a. *Araştırmada elde edilen bulgulara göre* (*According to* the findings obtained from the analysis) Türkçe öğretmen adaylarının özel alan ve öz yeterlik algılarının cinsiyete, öğretim şekline göre çok fazla farklılaşmadığı fakat Agno faktörünün belirleyici olduğu tespit edilmiştir. (NST)

Araştırma sonucunda (*As a result of the research*) Türkçe öğretmenlerinin dil bilgisi konularının … fark bulunmadığı sonucuna ulaşılmaktadır. (NTS)

Lastly, the analysis of topic shift items in abstracts is indicated below.

Table 8.

Items of topic shift in three sub-corpora

Topic shift Item	**NSE** Raw no.	Per 1000	**TSE** Raw no.	Per 1000	**Topic shift** Item	**NST** Raw no.	Per 1000
so	-	-	1	0,1	*değerlendirildiğinde (considering)*	1	0,2
as for	-	-	2	0,3	*bakıldığında (in regard to)*	2	0,4
in terms of	-	-	2	0,3			
with regard to	-	-	1	0,1			
regarding	-	-	1	0,1			
Total	**-**	**-**	**7**	**1,2**		**3**	**0,6**

According to Table 8, the category of topic shift had the least frequency of use in all groups. NSE data did not include any FM item with this function. TSE, on the other hand, employed diverse types of FMs, i.e. 5 types with 7 instances as illustrated below.

4. a. *In terms of* data collection techniques, a triangulated inquiry using a variety of techniques such as questionnaires, audio recordings, and interviews have been conducted. (TSE)

b. *With regard to* the teachers' attitudes, although she has positive attitudes towards using teacher-determined and learner-determined tasks in her classes, she has negative attitudes towards... (TSE)

As it is clearly understood from the instances, in 6b, there is a shift in topic from something else to *data collection technique* and it is indicated through the item *'in terms of'*. In 6c, there is another instance of FM, i.e. *with regard to,* which is used to signal topic shift from reporting one aspect of findings to another aspect.

The frequency analysis of all these four categories of FMs indicated that NSE, NST and TSE mostly made use of items to announce the goal of writer and to a certain extent to sequence ideas or points rather than making topic shifts or labelling text stages. This difference might be attributed to the genre effect and the nature of abstracts since abstracts introduce the main parts of the study such as the aim, data collection and analysis procedure and results and they mostly require thesis writers to announce their goals. That is why all three groups might have employed FMs mostly to announce discourse goal. Other than this, the scarcity of the items that are used to indicate discourse acts or text stages and shifts in topic might result from the nature of the abstracts. It is probable that the restriction on word size in writing abstracts might have caused them not to use these kinds of FMs and led them report the findings clearly, briefly and directly without the use of any additional markers. In other words, students might not have found it necessary to introduce stages in a short lengthy abstract due to the economic use of the language and the limitation on the number of the words to be used. Thus, the short lengthy of abstracts may have led the postgraduate students use the words economically and document the most necessary and significant aspects of the research without labelling stages via frame markers.

Conclusion and Implications

This study sought to investigate FM use in master thesis abstracts written by NSE, NST, and TSE in terms of frequency and functions. The results of the study revealed that NSE, NST, and TSE abstracts differed from one another in terms of frequency of FMs and FM types to a great extent. This study has evidenced that Turkish writers heavily rely on FMs in English and Turkish abstracts in the organization of their discourse and the announcement of their goals. Specifically, it was observed that TSE abstracts were shaped by FMs with the highest frequency of occurrence and most diverse types compared to NSE and NST abstracts. In contrast, NSE abstracts included the least numbers of FM items and types. In terms of FM functions, 'announcing goal' items were significantly employed by all three groups of thesis writers while those included in the category of topic shift rarely occurred or did not even occur in NSE abstracts. Another noticeable finding was that only NST employed FMs to label different parts of their abstract, namely, to signal the end of their abstracts.

The conclusion that can be drawn from the findings is that Turkish and English postgraduate writers pursue different rhetorical conventions in the articulation of persuasion in their thesis abstracts through FMs. Turkish native and non-native students differ from English native speakers in organizing their ideas and structuring their abstracts and they preferred explicit indication of their goals at the very beginning of abstracts and in sequencing ideas or points via FM use. Besides these, considering diversity of FM items, this research suggests that Turkish students are aware of various types of explicit signposts in structuring their discourse since they employed more diverse types of items in their abstracts compared to NSE. These results yield to the fact that there may be cross-linguistic differences between the English and Turkish languages in terms of FM use.

The other conclusion that is drawn from the results obtained from manual analysis of each abstract was that Turkish writers differ from NSE and follow a different path in the organization of their abstracts. They mostly announce their goals via FMs at the very beginning of their abstracts without providing readers with any background information before introducing the main focus of the study. Based on the findings, 12 abstracts in both TSE and NST corpora started with FMs included in the

category of announcing the goal. This suggests that Turkish writers first introduce their aim. In contrast, only 8 abstracts in NSE corpus started with FMs used to announce the goal of the writer. Thus, it can be concluded that the organization of discourse and even writing norms could be specific to the kind of native language.

In terms of pedagogical implications, the findings of the present study prove to be useful in creating awareness among postgraduate students related to the organization of master thesis abstracts via FMs and incorporating FM teaching into academic writing courses to help students structure their discourse better. In addition, the results of this study provide various insights into the revelation of the variation in FM types and items in Turkish and English abstracts written by Turkish postgraduate students and in English abstracts written by English native postgraduate students. Thus, increasing awareness of thesis writers in cross-linguistic differences through this research could be helpful for them to judge which FMs they utilize and when and how to use them. It is also important to train postgraduate students to effectively use FM items, to maximize the use of a variety of FMs. So, through FMs, they could guide their readers in sequencing ideas or parts, introducing the discourse goal, labelling different stages and indicating shift in topics. Thus, introducing FM items as well as their functions could help writers effectively and appropriately use them and utilize a wider repertoire of these markers in their written texts.

Regarding implications for further inquiry, the current research made a contrastive and comparative analysis of Turkish and English native languages as well as non-native English products of Turkish students in terms of FM use. Based on the evidence that FM occurrence and types differ from one language to another due to idiosyncrasy, different languages can be studied with a comparison to the native English language or non-native English to shed some light upon cross-linguistic dis/similarities and to reveal whether there is any effect of mother tongue on language use in L2.

As a final suggestion, metadiscourse resources other than FMs could be analysed in master thesis abstracts to examine how Turkish students utilize them in their L1 and L2 writings in comparison to native speakers of English to provide further insight into whether Turkish students employ other metadiscourse resources as many as FMs and depend more heavily on these resources than native speakers of English or not.

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Appendix A. Post-Hoc Test Results: Between-Subjects Effects Regarding FM Types in abstracts

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
Sequencing	NST	NSE	1.150	.553	.103
		TSE	-.450	.553	.696
	NSE	NST	-1.150	.553	.103
		TSE	-1.600*	.553	.015*
	TSE	NST	.450	.553	.696
		NSE	1.600*	.553	.015*
Labelling	NST	NSE	.600*	.135	.000*
		TSE	.600*	.135	.000*
	NSE	NST	-.600*	.135	.000*
		TSE	.000	.135	1.000
	TSE	NST	-.600*	.135	.000*
		NSE	.000	.135	1.000
Topic Shift	NST	NSE	.150	.126	.466
		TSE	-.200	.126	.261
	NSE	NST	-.150	.126	.466
		TSE	-.350*	.126	.020*
	TSE	NST	.200	.126	.261

		NSE	.350*	.126	.020*
Announcing	NST	NSE	.450	.329	.364
		TSE	-1.850*	.329	.000*
	NSE	NST	-.450	.329	.364
		TSE	-2.300*	.329	.000*
	TSE	NST	1.850*	.329	.000*
		NSE	2.300*	.329	.000*

*significant at the .05 level.