Analyzing Metadiscourse in the English Abstracts of BA Theses

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Abstract—Metadiscourse is an important linguistic resource to express writers' attitudes and to establish the relationship among writers and readers. Recently metadiscourse studies have a number of significant progresses in terms of theoretical and empirical researches. However, little attention has been drawn to the analysis of metadiscourse use in research article abstracts across different disciplines. Based on previous studies, therefore, this article takes Hyland's (2005a) interpersonal model of metadiscourse as the theoretical framework and adopts corpus-based approach to analyze the mode of usage and distributional features of BA theses English abstracts across three different disciplines (Applied Linguistics, Material Science and Electronic Engineering). This study is helpful to deepen our interpersonal consciousness of English academic discourse and is beneficial to enhance our understanding of the second language academic writing. Meanwhile, the study has certain implications for EFL learners' dissertation abstract writing.

Index Terms—metadiscourse, interpersonal, abstract, three different disciplines

I. INTRODUCTION

Recently metadiscourse studies have achieved a number of significant progresses in the aspects of theoretical and empirical researches. Since 1959 Harris has raised the concept of metadiscourse, many scholars (Williams, 1981; Vande Kopple, 1985; Crismore, 1989; Crismore et al., 1993; Hyland, 2004&2005a) further develop this term. They take those language forms such as hedges, connectives or comments that represent writers'/ speakers' influence on readers/ hearers into the category of metadiscourse (Yang, 2007).

Abstracts as an independent discourse perform an important function of arousing readers' interest in the articles which involve writers' interaction with potential readers. Thus, in presenting their attitudes, abstract writers provide their work to members in the same disciplinary community by predicting the readers' needs and taking into consideration what readers have known about the topic. For instance, abstract writers may provide additional information about linguistic terms in abstracts, or mention other researchers' contributions to show their solidarity with the disciplinary community. It can be seen clearly that abstract writers writer by using these linguistic devices through which metadiscourse can provide a framework for understanding the interaction between writers and readers. Therefore, this study adopts the corpus-based research method and intends to investigate the use of metadiscourse in BA theses' English abstracts of different disciplines.

The aim of the present study is to explore the use of metadiscourse resources in BA theses' English abstracts of different disciplines which are Applied Linguistics, Material Science and Management. Specifically, this study aims to (a) investigate the general use of metadiscourse resources in English abstracts of BA theses; (b) contrast the distributional patterns of metadiscourse use in English abstracts of BA theses across three different disciplines such as Applied Linguistics, Material Science and Management.

This present study makes a contribution to the research in two ways. Firstly, analyzing BA theses' English abstracts within the framework of metadiscourse offers insight into metadiscourse, illustrating how metadiscourse resources are realized in the genre of BA theses' abstracts. Secondly, examining the patterns of metadiscourse use in different disciplines' English abstracts helps to uncover the similarities and differences across the English abstracts of the three disciplines which will provide a broader view on metadiscourse use in written texts by EFL learners and thus facilitate our understanding of the roles and functions of metadiscourse.

This article is organized as follows: The first part provides research background, indicating the aim and significance of the study and presents the organization of this thesis. The second part gives an overview of the previous studies on the definitions and classifications of metadiscourse and establishes the theoretical framework for the present study. The next part presents the methodology adopted in the present study in which the research questions are raised and then the procedures of data collection and data analysis are presented. The fourth part investigates the general use of metadiscourse resources in English abstracts of BA theses and contrasts the distributional patterns of metadiscourse use in English abstracts of BA theses across three different disciplines. The last part draws general conclusions of the major findings in the present study. The implications of the study are also presented in this chapter.

II. LITERATURE REVIEW

A. Definitions of Metadiscourse

Metadiscourse have been defined from different perspectives since the term was first proposed by Harris in 1959. He believes that metadiscourse is a way of understanding language in use or representing writers'/speakers' intention to guide receivers' perception of texts (cited Hyland, 2008). Williams (1981) defines metadiscourse as "writing about writing, whatever does not refer to the subject matter being addressed" (p. 226). According to Vande Kopple (1985), metadiscourse is the word beyond the basic proposition which refers to a set of mechanism that can lead readers to organize, classify, interpret, evaluate and reflect the text message (cited Xu, 2006). Crismore et al. (1993) redefines metadiscourse in their influential article as:

Linguistic material in text, written or spoken, which does not add anything to the propositional content but that is intended to help the listener or reader organize, interpret and evaluate the information given. (p. 40)

Hyland and Tse (2004), however, have branches of narrow and broad understanding of metadiscourse. The narrow point of view is underlining the function of discourse organization; the broad point of view is that metadiscourse embodies authors' approaches to using language, rhetoric as well as combining discourse organization and meaning (Xu, 2006). According to this understanding, Hyland (2005a) gives a clear definition of metadiscourse:

Metadiscourse is the cover term for the self-reflexive 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. (P. 37)

This definition emphasizes the interpersonal meaning, such as evaluation, attitude and engagement and considers metadiscourse as a meaning system that is reflected by language items.

B. Classifications of Metadiscourse

Similar to the different approaches to defining metadiscourse, the categorizations of metadiscourse resources vary due to different standpoints taken by researchers. Nowadays, scholars' classifications on metadiscourse mainly focus on the discussion of word classes. From the point of the present study, there are two taxonomies on metadiscourse resources that most people are familiar with which are textual metadiscourse and interpersonal metadiscourse; interactive metadiscourse and interactional metadiscourse.

Based on Lautamatti's and Williams' taxonomies of metadiscourse, Vande Kopple (1985) puts forward seven types of metadiscourse resources which are shown in Table 2.1.

TABLE 2.2.1 VANDE KOPPLE'S CLASSIFICATION OF METADISCOURSE

Category	Function	Examples
Textual	show how parts of a text are connected or organized	first, next, as for, however
Text connectives	help grasp the meaning of elements in texts	in other words, that is
Code glosses		
Interpersonal	make explicit discourse acts performed at certain points	I hypothesize that, to sum up, we claim
Illocution markers	indicate the source of the information presented	Mrs. Jones said
Narrators	assess the probability or truth of a statement	clearly, undoubtedly
Validity markers	reveal writers' attitude to propositional contents	surprisingly, luckily
Attitude markers	address readers directly and draw them into an implicit dialogue	Most of you will oppose the idea that
Commentaries		

Vande Kopple (1985) considers that metadiscourse can convey either textual or interpersonal meanings and divides seven types of metadiscourse resources into two categories: textual and interpersonal. Textual metadiscourse include text connectives and code glosses. They help to show how individual elements of those propositions make sense in conjunction with the other elements of the text in a particular situation. Interpersonal metadiscourse include illocution markers, narrators, validity markers, attitude markers and commentaries. They help to characterize the interaction between the writers and readers about the content.

However, this kind of classification is likely to break the integrality of three metafunctions proposed by Halliday (Luo & Pang, 2010). With the extension of relative researches, deficiencies of the dichotomy to textual and interpersonal metadiscourse are more and more obvious. Therefore, Hyland and Tse (2004) argue that dividing metadiscourse into interactive and interactional can essentially reflect the characteristics of it. This study takes Hyland's (2005) classification model of metadiscourse as the theoretical framework.

C. Interpersonal Model of Metadiscourse

Hyland (2005) proposes an innovative classification of metadiscourse and develops an interpersonal model of metadiscourse by adopting Thompson and Thetela's (1995) conception of interactive and interactional resources. This model consists of interactive and interactional resources and is summarized in Table 2.2.

TABLE 2.3.1 HYLAND'S INTERPERSONAL MODEL OF METADISCOURSE (HYLAND, 2005A, P. 49)

Category	Function	Examples	
nteractive Help to guide the reader through text		Resources	
Transition	express relations between main clauses	in addition; but; thus	
Frame markers	refer to discourse acts, sequences or stages	finally; to conclude	
Endophoric markers	refer to information in other parts of the text	noted above; see Fig	
Evidentials	refer to information from other texts	according to X; Z states	
Code glosses	elaborate propositional meanings	namely; e.g.; such as	
Interactional	Involve the reader in the text	Resources	
Hedges	withhold commitment and open dialogue	might; perhaps; about	
Boosters	emphasize certainty or close dialogue	in fact; definitely;	
Attitude markers	express writer's attitude to proposition	unfortunately; I agree	
Self mentions	explicit reference to author(s)	I; we; my; me; our	
Engagement markers	explicitly build relationship with reader	note; you can see that	

In comparison with earlier classification models of metadiscourse, Hyland's interpersonal model of metadiscourse employs "interactive resources" and "interactional resources" to replace the traditional dichotomy of "textual" and "interpersonal" metadiscourse and identifies more specific functions with them by minimizing functional overlapping. Therefore, we will take Hyland's (2005) classification model of metadiscourse as the theoretical framework of this present study.

III. METHODOLOGY

A. Research Questions

The present study adopts a corpus-based approach to investigate the distribution of metadiscourse resources in EFL students' writings and tries to explore the reasons for some differences of distributional patterns. According to the research purposes, research questions of this study are summarized as follows:

- (1) What is the overall distribution of metadiscourse resources in English abstracts of BA theses?
- (2) Are there distributional similarities or variations for metadiscourse resources use in English abstracts of BA theses across three different disciplines (Applied Linguistics, Material Science and Electronic Engineering)? Why?

B. The Corpus

The corpus consists of three sub-corpus each of which is comprised of 20 abstracts of BA theses written in English by students from three different disciplines that are respectively Applied Linguistics, Material Science and Electronic Engineering. In order to confirm the validity of the selected abstracts, 60 abstracts are collected randomly from those students whose grades of CET 6 are over 550. All the abstracts are written between 2012 and 2015. A description of the sub-corpora employed in this study is summarized in Table 3.1.

 $\label{eq:table 3.2.1} \text{Summary of the sub-corpora employed in this study}$

Corpus	No. of Abstracts	Total No. of Word Tokens	Average Abstracts Length
Applied linguistics	20	3517	176
Material science	20	4574	229
Electronic Engineering	20	5106	255

C. Data Analysis

Data analysis is used for analyzing and comparing the data in the 60 BA theses abstracts and in the sub-corpus of abstracts from three different disciplines. To begin with, the author reads the abstracts carefully word by word to distinguish the metadiscourse items according to Hyland's interpersonal model of metadiscourse referred in the second part. Besides, metadiscourse items of each category are calculated manually and the corpus is analyzed for several times to ensure its validity. Next, in order to answer research questions of the present study, the frequency and proportion of metadiscourse in each category are calculated by AntConc3.2.2; in addition, functions of each metadiscourse category and distributional similarities or variations for metadiscourse resources used in each sub-corpus will be examined. Finally, the possible reasons behind similarities or variations for metadiscourse resources use will also be analyzed.

IV. RESULTS AND DISCUSSION

A. Overall Distribution of Metadiscourse Resources in English Abstracts of BA Theses

As an important linguistic tool that writers use to organize texts, engage readers and express their attitudes, metadiscourse is investigated in English abstracts of BA theses in the present study. According to Hyland's classification, the quantitative analysis demonstrates the importance of metadiscourse in English abstracts, with 816 occurrences in the corpus of 13197 word tokens. The standard frequency of metadiscourse is 618.3 per 10,000 words, which is a reflection of the significant role of metadiscourse resources in BA theses English abstracts. In order to intensify the our understanding of the significant role of metadiscourse resources in BA theses English abstracts in our

corpus, we can compare 618.3 cases of metadiscourse resources per 10,000 words in our corpus with Biber et al.'s (1999) findings of 18.5 cases of passive voices per thousand words and 20 cases of past tense verbs per thousand words in their study for the Longman Grammar (cited Hyland, 2008). Also, the high frequent use of metadiscourse in our data reveals that the abstract writers would like to establish an appropriate writer-reader relationship in their abstract writing.

The overall distribution of metadiscourse in BA theses English abstracts of our corpus is shown in the following Table 4.1.

 ${\it Table 4.1.1}$ Overall distributions of metadiscourse resources in BA theses abstracts

Category	Total number of items	Percentage of total	Per 10,000 words
Transition	538	65.9	407.7
Frame markers	64	7.8	48.5
Endophoric markers	6	0.7	4.5
Evidentials	0	0	0
Code glosses	29	3.6	22.0
Interactive	637	78.1	482.7
Hedges	53	6.5	40.1
Boosters	33	4.0	25.0
Attitude markers	5	0.6	3.8
Self mentions	13	1.6	9.9
Engagement markers	75	9.2	56.8
Interactional	179	21.9	135.6
Totals	816	100	618.3

On the whole, the number of interactive metadiscourse resources accounts for about 78.1 percent of the total number of metadiscourse resources investigated, which is more than three times of the interactional resources. In other words, the abstract writers use more than three times of the number of interactive metadiscourse items than that of the interactional ones. Investigating the subcategories of the interactive and interactional metadiscourse in detail, we can find that there are certain linguistic preferences in each subcategory. For example, transition markers are overwhelmingly the most common resources used in students' BA these abstract writing, which account for about 65.9 percent of the total metadiscourse resources. Following transition markers are engagement markers, hedges, and frame markers. Evidentials, attitude markers and endophoric markers are least used and make up only about 1.3 percent of the total metadiscourse resources. Boosters, code glosses and self mentions rank from the fifth to seventh and account for about 9.2 percent of the total number.

B. Distribution of Interactive Metadiscourse across Three Different Disciplines

Writers use interactive metadiscourse resource to help readers understand a text by explaining, orienting and guiding them through discourse. In other words, with interactive metadiscourse, abstract writers can organize the main contents of abstracts in a coherent way by considering readers' knowledge, experiences and needs. Interactive metadiscourse consists of five subcategories, i.e., transition, frame markers, endophoric markers, evidentials and code glosses.

From Table 4.2 we can find that among the three disciplines, transitions account for over half of the interactive metadiscourse used in students' abstracts. As Hyland (2005a) puts it, the most frequent way that the argument structure of a text is made explicit is through transitions, which indicate how the writer intends the connections between elements of the discussion to be understood. As Table 4.2 illustrates, in BA theses English abstracts of these three disciplines, the transitions are the most frequently used interactive metadiscourse resources followed by frame markers, code glosses and endophoric markers. What is more, the number of evidentials used in the three sub-corpuses is zero. Thomas and Hawes (1994) refer to evidentials as "metalinguistic representations of an idea from another source" (p. 129). They refer to information or idea from other texts. They are references to authorities that writers use for their intellectual or persuasive force (Crismore, 1993). Probably as the corpus is made up with the novices' academic writings, they lack the experience of reference.

Table 4.2.1 Interactive metadiscourse resources in BA theses abstracts of three disciplines (per 10,000 words)

Category	Applied Linguistics	Material Science	Electronic Engineering
Transition	477.7	391.4	374.1
Frame markers	65.4	28.4	54.8
Endophoric markers	5.7	0	7.8
Evidentials	0	0	0
Code glosses	36.9	13.1	19.6
Totals	585.7	432.9	456.3

Variations are also found when a comparison is made regarding the use of metadiscourse in the three disciplines of students' BA theses English abstracts. As is shown in Table 4.2, the total frequencies of interactive metadiscourse resources in Material Science and Electronic Engineering are almost the same. While the frequency of interactive metadiscourse resources in abstracts of Applied Linguistics is much higher than that in the two subjects of Material Science and Electronic Engineering. This variation may be attributed to the abstract writers' proficiency in English. In

our data, students who write BA theses on Applied Linguistics are major in English, therefore their English writing ability is relatively higher than those who are major in science and engineering.

C. Distribution of Interactional Metadiscourse across Three Different Disciplines

Interactional resources are employed by writers to express their attitudes or commitment in the texts and connect with readers, and thus indicate the writer-reader interactions. Through the use of hedges, boosters, attitude markers and self-mention, which are collectively called "stance markers" by Hyland (2005b, p. 177), writers can present themselves and convey their judgments, opinions and commitments. The use of engagement markers makes it possible for writers to relate to their readers with respect to the positions advanced in the text. Table 4.3 gives a summary of the frequency of interactional resources found across the three disciplines and reveals some similarities and variations regarding their use, which will be discussed in the following texts.

Table 4.3 reveals that although the abstracts of Material Science and Electronic Engineering contain the different number of interactional metadiscourse per 10,000 words, even the total frequency of interactional metadiscourse used in Material Science is more than twice of that in Electronic Engineering, the distribution of interactional metadiscourse in each subcategory is almost the same. As it illustrates in Table 4.3, engagement markers are the most frequently used metadiscourse resources followed by hedges and boosters, while attitude markers and self mentions are the least used in the BA theses abstracts of these two subjects. The similarities may be produced due to the two disciplines belong to science and engineering and their English proficiency as well as academic writing abilities are relatively at the same level.

Table 4.3.1Interactional metadiscourse resources in BA theses abstracts of three disciplines (per 10,000 words)

Category	Applied Linguistics	Material Science	Electronic Engineering
Hedges	96.7	24.0	15.7
Boosters	45.5	24.0	11.8
Attitude markers	14.2	0	0
Self mentions	28.4	6.6	0
Engagement markers	68.3	74.3	33.3
Totals	253.1	128.9	60.8

However, the frequency of interactional metadiscourse resources used in BA theses abstracts of Applied Linguistics exhibit significant differences with the other two disciplines. As Table 4.3 shown, hedges are the most frequently used metadiscourse resources followed by engagement markers and boosters, which is different from the frequency of interactional metadiscourse resources ranked in the other two subjects. Meanwhile, the number of the former four subcategories listed in Table 4.3 of interactional metadiscourse used in Applied Linguistics abstracts is much higher than that in Material Science and Electronic Engineering, which leads to the total frequency of interactional metadiscourse resources in BA theses English abstracts of Applied Linguistics is fairly higher than those in the abstracts of the other two disciplines. This variation may be attributed to subject differences and abstract writers' different proficiency in English as well as their varied academic writing abilities.

V. CONCLUSION

This study adopts a corpus-based approach to investigate metadiscourse use in EFL student abstracts written for bachelor degree. It aims to investigate the general use of metadiscourse resources in English abstracts of BA theses, and find out if there are similarities or variations in metadiscourse use in metadiscourse resources use in English abstracts of BA theses across three different disciplines (Applied Linguistics, Material Science and Electronic Engineering).

Generally, the number of interactive metadiscourse resources is more than three times of the interactional resources used in BA theses abstracts across the three disciplines. In terms of interactive metadiscourse resources, there are more similarities in the use of each subcategory of interactive metadiscourse items among the three subjects. However, in terms of the interactional metadiscourse resources, the frequency of this category of resources used in BA theses abstracts of Applied Linguistics exhibit significant variations with the other two disciplines. For example, hedges are the most frequently used metadiscourse resources followed by engagement markers and boosters, which is different from the frequency of interactional metadiscourse resources ranked in the other two subjects. In BA theses abstracts of Material Science and Electronic Engineering, engagement markers are the most frequently used metadiscourse resources followed by hedges and boosters.

Metadiscourse use reflects the writers' attempts to help readers understand discourse relations, and the relationship they wish to establish with the readers. Therefore, the research findings in this study may provide several implications for English teaching of writing to EFL students. Firstly, metadiscourse resources should be taught in our classroom to make students understand the role of metadiscourse in the interaction between the writer and the reader. Students need to be made aware that use of metadiscourse depends on the communicative situation in which the researcher is involved. Thus, the study is helpful to deepen our interpersonal consciousness of English academic discourse, so as to help writers and readers establish a good interpersonal relationship. In addition, it is a teaching priority to help students to learn where certain metadiscourse devices should be used and how metadiscourse devices are realized according to linguistic

preferences of each metadiscourse resource in BA theses abstracts. So the study is beneficial to enhance our understanding of the second language academic writing, so as to improve our second language writing ability; meanwhile the study has certain implications for EFL learners' dissertation abstract writing.

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