A COMPARATIVE ANALYSIS OF MACRO-TEXTUAL ORGANIZATION AND METADISCOURSE FEATURES IN ELT RESEARCH ARTICLE INTRODUCTIONS WRITTEN BY THAI AND INTERNATIONAL ACADEMICIANS

BY

MR. NATTHAPHONG SIRIJANCHUEN

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN
ENGLISH LANGUAGE TEACHING
LANGUAGE INSTITUTE
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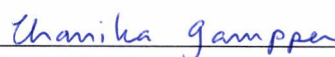
LANGUAGE INSTITUTE

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ENTITLED

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was approved as partial fulfillment of the requirement
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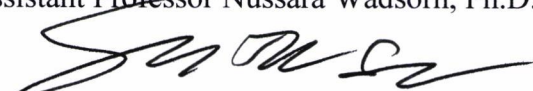|	
Thesis Tiltle	A COMPARATIVE ANALYSIS OF MACRO-TEXTUAL ORGANIZATION AND METADISCOURSE FEATURES IN ELT RESEARCH ARTICLE INTRODUCTIONS WRITTEN BY THAI AND INTERNATIONAL ACADEMICIANS
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ABSTRACT

English has become an academic lingua franca in the realm of higher education among academicians worldwide. The ability to write academically is thus an essential skill in many fields, including English language teaching (ELT). This study is an attempt to identify similarities and differences of rhetorical move structures and metadiscourse features in ELT research article introductions (RAIs) written in English by Thai and by international academicians (TA vs. IA). The corpora consisted of two different sets of 60 RAIs written between 2010 to 2016, half of which were selected from Thai national journals and the other half were from international journals, all of which were refereed professional journals. The results indicated that although the majority of TA and IA writers produced rhetorical move structures according to the Swales' CARS model, the IA tended to follow the obligatory move structures more strictly than the Thai counterparts. Also, the TA and IA disclosed their different writing approaches when they utilized different proportions and diverse sub-categories of metadiscourse features within each rhetorical move structure. The TA highlighted the use of Transitions (TS) in Move 1 and 3, while the IA more often produced Frame markers (FM), Endophoric markers (EM), Evidentials (ET), Code glosses (CG) and Metadiscourse nouns (MN) than

the TA in each move. Besides, the TA tended to use more Hedges (HG), Boosters (BT), Attitude markers (AM), and Engagement markers (EG) in Move 1, whereas the IA produced more of these metadiscourse features including Self-mentions (SM) espicially in Move 3. This means the IA preferred outlining the related content to guide readers through their contextualized texts, assuming that readers need to be assisted when navigating the text. The TA, on the other hand, tended to allow readers to actively explore textual contents more by themselves. The findings revealed that fact that the production of rhetorical move structures and matadiscourse features is actually governed by different writing norms and conventions as well as the academicians' identities in their academic communities.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

RAIs	Research article introduction
TA	Thai academicians
IA	International academicians
ELT	English language teaching
TS	Transitions
FM	Frame markers
EM	Endophoric markers
ET	Evidentials
CG	Code glosses
HG	Hedges
BT	Boosters
AM	Attitide markers
EM	Engagement markers
SM	Self-mentions
MN	Metadiscourse Nouns

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The adoption of English as an academic lingua franca has unquestionably been a significant trend in the realm of higher education among international academicians worldwide (Canagarajah, 2007; Faber, 2010; Seidlhofer, 2011; Mauranen, 2008, 2010, 2012; Björkman, 2011, 2013) That is, in database analysis of world distribution of academic journals, Narvaez-Berthelemot and Russell (2001) maintained that English is the primary language of the world academic publications. Therefore, in order to become part of the global academic community, both native and nonnative English speaking academicians around the world are destined to publish their research in English in order to be recognized as prolific scholars. Together, this could promote their institutional ranking status for having their research articles published in well‐established journals, either nationally or internationally (Curry & Lillis, 2004, 2010).

In recent years, there is a large quantity of research focusing on diverse aspects of research articles (RAs) according to the discourse analysis paradigm to help language theorists and practitioners shape a better understanding of this specific academic writing. These research investigations have interestingly led to a substantial body of literature in a variety of dimensions such as the studies of rhetorical move structures in different sections and/ or across disciplines (e. g. Brett, 1994; Santos, 1996; Holmes, 1997; Anthony, 1999; Williams, 1999; Jogthong, 2001; Yang & Allison, 2003; Swales, 1990, 2004; Samraj, 2002, 2005, 2008; Shehzad, 2005; Pho, 2008; Kanoksilapatham, 2005, 2011; Peacock, 2011; Wannaruk, & Amnuai, 2015), the analyses of contrastive rhetoric between academic writers with different linguistic and cultural backgrounds (e.g. Hinds, 1983; Valero‐Garcés, 1996; Martın, 2003; Hirano, 2009; Rahimpour & Faghih, 2009; Loi, 2010; Loi & Evans, 2010; Sheldon, 2011; Morales, 2012; Kobayashi, 2016), or other research studies related to some particular linguistic features within discourse in a different number of ways (e. g. Thompson & Yiyun, 1991; Salager‐Meyer, 1992;

Gledhill, 2000; Hinkel, 2004; Vold, 2006; Bruce, 2008; Kai, 2008; Gillaerts, & Van de Velde, 2010; Hu & Cao, 2011; Jalilifar, & Dabbi, 2013; Çakır, 2016).

Owing to the status of English as an academic lingua franca, it is obvious that there are a large number of academic journals in which both local and international academicians can actively engage by displaying their language repertoire in certain variations among different discourse communities (Mauranen, 2008, 2010, 2102; Mauranen, Hyninnen, and Ranta, 2010; Björkman, 2013). Here, the use of English has become a variety in its own right due to the norms and conventions each of these academic platforms has established. Thus, the characteristics of the English language employed in different academic journals by both local and international academicians are well worth exploring, especially in Thailand where the research in this area is still limited due to its infancy. We need to better understand and explore these academic discourse settings in order to gain insights into how English actually functions in this linguistic repertoire.

1.2 Statement of the Problem

The ability to write academically is an essential skill for Thai graduate students or novice scholars in many fields, including English language teaching (ELT). Even more, it is today indisputable that they are required to get a 'standard' research article published if they wish to embark on a journey for their academic achievement. Nonetheless, the process of developing rhetorical knowledge in advanced academic literacy is not an easy task. Many studies (e.g. Pupiput, 1998; Kanoksilapatham, 2007; Jaroongkhongdach et al., 2012; Junthumrong & Charumanee, 2013) pointed out in unison that even Thai academics can experience a number of practical difficulties in writing English research articles. Writing for this academic purpose can be both challenging and demanding for nonnative English speaking writers, especially when writing the research article introductions (RAIs), an integral part of any empirical journal articles where all academic writers need to contextualize relevant conceptions of their work as well as establish convincing arguments to "catch the reader's interest" and draw the reader into the article for the first time (Swales, 1990, 2004; Cho, 2009; Feak & Swales, 2011).

Practically speaking, in writing a well-structured RAI, it is crucial that writers need to understand and be able to produce textual organization based on proper rhetorical move structures (Swales, 1981, 1984, 1990, 2004; Connor, Upton, and Kanoksilapatham, 2007; Pho, 2008; Upton & Cohen, 2009) and make full use of metadiscourse devices effectively (Dahl, 2004; Hyland, 2004a, 2004b, 2005a, 2009, 2010; Ädel, 2010). This is because, in the rhetorical context, the pragmatic functions of these two linguistic phenomena are closely interrelated to determine writers' communicative intention (Del Saz Rubio, 2011). Yet, considering previous studies on academic discourse analysis in Thai and/or English empirical research articles (RAs) which are still in small numbers, special interest has only restrictedly been paid to structural move analysis (e.g. Jogthong, 2001; Im-O-Cha, 2004; Wirada, 2012; Wannaruk & Amnuai, 2015). For studies related to metadiscourse, it was also found that there is scant attention to it in the Thai research context.

As Henry and Rosenberry (2001) explained, the study of move-based analysis with the systematic identification of linguistic features related to rhetorical move structures can potentially develop the theoretical framework based on move-schema theory. It would respectively lead to a better description for the communicative functions of any target discourse and then a more productive instruction for writing a specific genre. This present research study is, as a result, an attempt to fill the gap and expand a new horizon by further investigating whether there are any variations in metadiscourse features within the macro structures of move-based analysis in the RAIs in the field of English language teaching (ELT) written by Thai academicians (TA) in well-established national journals and those written by international academicians (IA) in international journals with high impact factor.

1.3 Objectives of the Study

In this research study, Swales' (2004) Create-A-Research-Space (CARS) model and the metadiscourse model based on Hyland & Tse (2004a), Hyland (2005a), and Jiang & Hyland (2016) are primarily utilized as analytical tools for the corpora of research article introductions (RAIs). The specific purposes of this study are as follows:

1.3.1. To identify and compare the macro-textual organization in terms of rhetorical move structures found in the English RAIs in the field of English language teaching (ELT) written by Thai academicians (TA) in national journals vs. by international academicians (IA) in international journals with high impact factor.

1.3.2. To identify the similarities and differences in the use of metadiscourse devices within the macro-textual organization found in the English RAIs in the field of English language teaching (ELT) written by TA in national journals vs. by IA in international journals with high impact factor.

1.4 Research Questions

1.4.1 What is the macro-textual organization in terms of rhetorical move structures of the English RAIs in the field of English language teaching (ELT) written by TA in national journals vs. IA in international journals with high impact-factor?

1.4.2 What are the similarities and differences in the use of metadiscourse found within the macro-textual organization in the English RAIs in the field of English language teaching (ELT) written by TA in national journals vs. IA in international journals with high impact-factor?

1.5 Definition of Terms

Definitions of key terms in this study are exhibited here to establish a fundamental understanding and distinguishable information:

1) English language teaching (ELT): the areas of studies concentrating on the theory and practice of teaching and learning English such as pedagogical & curriculum development, teaching methodologies, language assessments and the like.

2) Thai academicians (TA): the term represents academic writers whose L1 is Thai and who got their research articles in the field of ELT published in national journals indexed in tier 1 of the Thai-Journal Citation Index (TCI) as well as in the ASEAN Citation Index (ACI).

3) International academicians (IA): regardless of their nationalities, the term represents any academic writers whose L1 is not Thai and whose research articles in the

field of ELT were published in prestigious international journals with high impact factor indexed by Journal Citation Reports® (JCR).

4) National journals: the research journals published in English in the field of English language teaching (ELT) which have been peer-reviewed and published by high-ranking universities in language and humanities in Thailand and have been indexed in tier 1 of the Thai-Journal Citation Index (TCI) as well as in the ASEAN Citation Index (ACI). They include 1) *Language Education and Acquisition Research Network (LEARN)* Journals of the Language Institute Thammasat University (LITU), 2) *Journal of English Studies* from the Department of English, Faculty of Liberal Arts, Thammasat University 3) *The PASAA Journal* of the Language Institute, Chulalongkorn University (CULI).

5) International journals: the research journals published in English in the field of English Language Teaching (ELT) with high impact factor published in the USA which include 1) *Language Learning: A Journal of Research in Language Studies*, Language Learning Research Club, University of Michigan (Impact Factor: 1.869) and 2) *TESOL Quarterly*, TESOL International Association (Impact Factor: 1.513), both of which are indexed by Journal Citation Reports® (JCR).

6) Research article introductions (RAIs): the term represents the sections in which the basic, relevant information of a particular study is initially contextualized and established before guiding readers to other sections of a research article. To be used as the corpora of this study, the RAIs were extracted from accredited national and international journals in the field of English language teaching (ELT).

7) Macro-textual organization: the rhetorical move structures which entail patterns of meaningful, coherent units or steps of communication in a written text made by academicians (Swales, 1990; Mauranen, Perez-Llantada and Swales, 2010).

8) Metadiscourse: linguistic expressions which writers use to deliver self-reflection and evolve the content and organization to 'the imagined readers' of the target text. It is considered as 'a social engagement' in writing where writers intend to display their evaluations, attitudes and commitments for their work. Metadiscourse is thus the

key linguistic features which connectedly organize and form meaningful coherence of a text (Hyland & Tse, 2004a; Hyland, 2004a, 2005a, 2010).

1.6 Significance of the Study

With the aim to provide a new insight into the global use of English as an academic lingua franca, this research's investigation and analysis of the macro-textual organization and the use of metadiscourse devices in the corpora of the ELT research article introductions (RAIs) would be an academically valuable contribution as follows. First of all, it would be very useful for both Thai and international scholars in the field of English language teaching (ELT), especially novice ones, who seek to develop their writing ability or pursue academic, rhetorical strategies enabling their work to be accepted in both local and international well-established English academic journals. Second, with the understanding of this particular discourse feature, the study could also be of great value to teachers who teach academic writing in a way that they can systematically provide more informative feedback to their students with the analytic tools available. Third, the results of this study would lay a foundation for further resources and ideas for pedagogical planning as well as material development in teaching writing academic English for students in higher education of their field. Last, but not least, this study might be used as a guideline to study in other disciplines fields concerning rhetorical functions and metadiscourse features in academic writing.

1.7 Scope of the Study

The study is restricted to the selected corpora of introduction sections in English empirical research articles (RAs) journals in the field of English language teaching (ELT). The corpora specifically include the empirical research studies conducted through the experimental method, quasi experimental method, and surveys so as to represent the conventional writing styles of the same genre. The place of publication was also determined to collect the target corpora. That is to say, the analysis is comparatively conducted upon the academic written discourse features between Thai academicians (TA), who got their articles published in well-established national journals in Thailand, and international academicians (IA), who published their articles in prestigious

international journals in the USA. Each set of the corpora includes 30 pieces of RA introductions, making 60 pieces in both corpora. Theoretical or literature-review articles and journal articles published in regular and special issues are excluded from this study since their introduction sections might contain some other different characteristics from those of the RA journals. For the selection of the metadiscourse in this study, the researcher concentrated on its main categories, namely interactive and interactional resources proposed by Hyland & Tse (2004a) and Hyland (2005), and a newly added one: metadiscourse nouns (Jiang & Hyland, 2016).

1.8 Limitations of the Study

The first limitation of this study is that the size of the corpora may still be limited due to the smaller numbers of research articles published in Thailand. Besides, since types of empirical research can probably affect the writing conventions of each RAI, any studies conducted through case study research and ethnography were excluded from the target corpora, thereby inevitably reducing the size of corpora. This led to an imbalance and difficulty for the TA corpus to be randomly selected as it can be more conveniently done in the corpus drawn from international journals, which are much greater in numbers. In consequence, the results of the present study may not be sufficiently generalized to the entire conception of the linguistic features found in the target discourse. Additionally, it is implausible for this research's findings to represent or generalize the same set of macro-textual organization and metadiscourse features found in research articles of other fields (e.g. medicine, architecture, social science) as the data collected were only from RAIs in the field of English language teaching (ELT).

1.9 Organization of the Study

Chapter one outlines the background and rationale of the study, discussing the status of English as an academic lingua franca in international settings and the reasons why the study of macro-textual organization and metadiscourse features was especially worthy of exploration. The objectives of the study, research questions, definitions of terms, significance of the study, scope of the study, and limitations of the study are also overall provided in this chapter.

Chapter two thoroughly reviews the key theoretical framework and conceptions as well as related research studies relevant to this current study. They include the notion of academic discourse analysis, English as an international academic lingua franca, the macro-textual organization in terms of rhetorical move structures, and metadiscourse analysis, as well as other previous research studies.

Chapter three is a presentation of the research methodology. The research article introduction (RAI) corpora used in this study are described. Together, the selection and construction of the target corpora, data analysis and procedures are outlined in detail.

Chapter four reveals the research findings on the comparative analysis of the macro-textual organization and the use of metadiscourse features. The findings are elaborated in terms of comparing the similarities and differences of the macro-textual organization and the use of metadiscourse devices within such organization. The deciding factors contributing to the use of metadiscourse within the macro-textual organization between both sets of RAI corpora are also illustrated in detail.

Chapter five provides the conclusion and discussion of the research findings. The researcher also proposes a pedagogical implication in teaching writing English for academic purposes (EAP) in relation to writing research articles (RAs). Finally, there are recommendations for future studies in the area of academic discourse analysis.

CHAPTER 2
REVIEW OF LITERATURE

The purpose of this chapter is to provide foundations for understanding through the construction of the theoretical framework and describing related research studies. It begins with the conceptions of English as an international academic lingua franca and academic discourse analysis, followed by the importance of research article introductions (IRAs) and the notion of macro-textual organization in terms of rhetorical move structures. Then, the classification of metadiscourse as the micro-level analysis in academic written discourse is elaborated in detail. The previous research studies which are relevant to this research are also presented in this chapter.

2.1 English as an International Academic Lingua Franca

In the recent decades, one of the rapidly remarkable changes in human history is the use of English as the main medium of human communication. With the rapid growth of English as an international lingua franca, the extensive use of English has become a global norm of communication. English has increasingly been used by an indefinitely great number of both native and nonnative speakers in the world today (Graddol, 1997, 2006; Kirkpatrick, 2007; Seidlhofer, 2011; Jenkins, 2007, 2015). To illustrate, nowadays, apart from being used as a native language (NL) in the English-speaking countries (e.g. the UK, the USA, Australia, etc), English has expanded itself greatly over the last few decades into the institutionalized non-native varieties which are used in multilingual and multicultural contexts (Widdowson, 1998; Yano, 2009). The changing nature of the native speaker concept "people who acquired the language naturally and effortlessly in childhood … in the community which uses the language" (Cook, 2003, p. 28), which is based on native English-speaking countries has been blurred and no longer applicable to describe authentic use as well as a realistic model of English in the world today (Kachru, 1992; Kachru & Smith, 2009). This is due to the fact that, as Brutt-Griffler (2002) argued, English has been reinforced to be the most appropriate language to use for anyone who wishes to deal with increasingly mobile international and intercultural exchanges, and that English as the main global language is largely owing to the development of existing multilingual speech communities in many

parts of the world that have adapted and appropriated English as a contact or additional language alongside the local languages in each region for their specific purposes. This is called 'macroacquisition'. Also, the number of proficient users of English as a second and international language has grown remarkably and now outnumbers the population of native speakers by far. Besides, considering the number of EFL/EIL users at the present time, it could be estimated to be up to one billion and still further been increasing (Crystal, 2003, 2008).

With regard to the use of English as a lingua franca (ELF) in academic contexts, the existence of this sociolinguistic reality has well established and empowered the flourishing use of English as the predominant language of research and publication. More and more educational institutes like universities extensively use English as the language of instruction. On the one hand, this has called for the study of academic discourse in English which is firmly associated with the pedagogical developments in the preparation of non-native English speakers (NNESs) for studying English for academic and specific purposes (Flowerdew, 2002). Connecting to the globalization of information exchange as well as professional and educational development, English for an academic lingua franca is, on the other hand, a truly international phenomenon (Flowerdew, 2015).

The state of widely acknowledging the variety of 'World Englishes' (WEs) and the notion of English as an international lingua franca in academic arena can furthermore be made known by today's scholarly activities and pursuits. That is to say, when the English-speaking world based on the native speakers' norms has declined and the faithfulness to English as a native language (ENL) standard tends to be critically substituted by the standard of international intelligibility (Graddol, 2003), keeping abreast of exploring English as an academic lingua franca in today's academic discourse communities is especially worthwhile and indispensable. This can together reveal the prerequisite of success in both academic and non-academic communication across diverse cultures. In other words, the deviation from English as either a native, second, or a foreign language to English as an international lingua franca in academic settings has been a new emerging norm. Therefore, it is undoubtedly the fact that English is a highly mandatory language for international scholarly journals and has been for almost a century (Mauranen, 2010, 2012).

The expansion of English as an international lingua franca in scholarly publications has a greatly beneficial effect for all stakeholders in international academic communities. Undoubtedly, international scholars are fully provided a powerfully linguistic tool for communicating across cultural borders among themselves. The manifestation of global knowledge can then be widely disseminated and promoted (Flowerdew, 2015). According to Lillis & Curry (2010, cited in Flowerdew, 2015), it is estimated that there are approximately 5.5 million academicians, 2,000 publishers and 17,500 higher education institutions around the globe that engage in academic writing for research publication. In this respect, the ability to write academic English means an opportunity to get other academicians from different nationalities to know one's work well. If not, the researcher and his or her work are, in a sense, deprived of this opportunity. Nonnative English speaking academics and practitioners wishing to gain international recognition are therefore obligated to publish their pieces of work in English.

Nonetheless, Yakhontova (2002) maintained that it is vital to promote linguistic and cultural diversity in academic research available to the international audience. Besides, individual researchers and academicians need not get rid of their national or cultural identity. The international scholars should acknowledge any diverse ways of presenting research in English, irrespective of following a western 'Anglo' writing model or not.

This idea very much corresponds to Canagarajah (1996) and Flowerdew (2008)'s argument that, to allow scholars whose first language is not English to have an equal chance in getting their academic work published, newly progressive criteria in accepting their papers should be established. The consideration needs to be on the intelligibility to a scholarly community to which the scholars belong, rather than adhering to the rules and conventions of the native speaker. The awareness on linguistic human rights towards the treatment of non-native English contributors should be raised so that their feelings of being victimized when publishing papers in English could be reduced. According to Ingvarsdóttir & Arnbjörnsdóttir (2013), this conception requires more discussion to address whether it is necessary to adhere to appropriateness of ENL standards agreed by journals to which nonnative scholars of English contribute. The

discussion should also emphasize the need for more research concerning the nature of academic discourse produced by multinational individuals in the setting.

2.2 Academic Discourse Analysis

Discourse analysis is a pivotal term in the field of linguistics and applied linguistics which can be interpreted differently from one another by academicians from numerous disciplines. The term can basically be defined as the study of language use within any particular context beyond the sentence level (Schiffrin, Tannen, & Hamilton, 2008). The linguistic analysis of discourses, on the other hand, may be further defined as the study of social interactional structures governed by different sociological classifications or discourse communities (Brown & Yule, 1983). For others, it could simply be defined as the investigation and de-construction of either spoken or written texts to discover what that language is used for or 'how a text is working' by the authority, and the effect upon the reader (Harley 1996, Dahlerup 1991, p. 9, cited in Jensen, 1997) and based on the qualitative analysis of semantic structures within textual organization (Van Dijk, 1985).

In the realm of discourse analysis, academic discourse has long been regarded as having its own unique register. The earliest studies in analyzing academic discourse were seriously carried out in the 1960s (e.g. Barber, 1962) and the emphasis was placed on the formal linguistic features and variations of different registers with a quantitative research paradigm. Since then, the copious number of studies with this research orientation has produced fruitfully (Flowerdew, 2002).

The core tenet of academic discourse is concerned the degree and variations of functional specifications of accuracy, styles, and appropriateness in linguistic rules and stylistic conventions governing scholarly communication to reach effective discourse (Flowerdew, 2000; Thompson, 2001; Dahl, 2004). However, producing good academic discourse is not merely about conveying scholarly 'language' or 'content', but it has a lot to do with the representation of self (Hyland, 2002, 2003). Therefore, the characteristic of academic discourse largely lies between scholarly creating well-structured linguistic patterns and presenting an individual identity and authority of writers whose confidence in evaluations and commitment to the target text must be academically displayed. It is

typically found through academic presentations, lectures, conferences, textbooks, theses, and research articles.

There have always been a large numbers of analyses to reveal numerous aspects of academic discourse (e.g. Hinds, 1983; Salager-Meyer, 1992: Bhatia, 1993; Santos, 1996; Holmes, 1997; Yang & Allison, 2003; Swales, 1990, 2004; Pho, 2008; Hirano, 2009; Hu & Cao, 2011; Jalilifar, & Dabbi, 2013; Çakır, 2016) since such scholarly attempts could help establish a standard response to the development of English for Specific Purposes (ESP) and English for Academic Purposes (EAP), especially for the pedagogical needs in tertiary-level education where students are required to compose their academic work (Evans & Green, 2007). For example, there are nowadays many courses for teaching and learning writing of academic reports or papers across disciplines. As Flowerdew (2002) stated,

> "…the underlying premise of most academic discourse analysis has been that the findings will be of value to language pedagogy. The extent to which discoursal accounts may be applied directly to syllabus and materials design or may more generally serve to inform an overall approach depends upon two important factors. First, upon the degree to which the analysis focuses on linguistic realization, on the one hand, or contextual conditions of production and reception, on the other and second, upon the philosophy of teaching and learning which the course designer holds to" (pp.6-7).

That is to say, concerning the emphasis on the linguistic realization and pedagogical philosophy, academic discourse analysis fruitfully enhances the progression of language comprehension and production which can effectively provide insights into the construction of necessary materials and syllabus. This would also help shape the understanding of cultural mismatches and the preferred patterns of interaction between teachers and students, all of which should be implemented into EAP course design (Flowerdew, 2000). This cannot be made possible by merely theoretical descriptions of traditional linguistics.

2.2.1 Genre Analysis in Academic Discourse

According to Flowerdew (2002), different paradigms in academic discourse analysis have actually emerged as an evolving sub-field in recent decades. Prominent linguists who have made this important contribution to academic discourse analysis are Bhatia (1993) and Swales (1990, 2004). They proposed seminal models for genre analysis in academic and professional settings which have strongly influenced the later development of the analysis until today. Contextualized within one particular genre, their studies on genre analysis can illustrate systematic details on the communicative modals and strategies of specific syntactic and move structures to project textual hierarchical organization. To illustrate, the most common characteristic of genre-based analysis is that it views language use as the entity which emphasizes rules and conventions within a particular communicative setting. Together, this particular communicative setting has established a specific set of relatively stable lexical and structural patterns that can yield a specific communicative goal (Bhatia, 2002). Therefore, genre analysis has fundamentally been used as an analytical framework for a wide variety of discourses.

Genres can obviously reside across disciplinary boundaries or even within the same field of study (Bhatia, 1993). That is, there are significantly overlapping genres in one place such as in text of PhD dissertations where a researcher can make a genre-based comparison between research article introduction sections (e.g. Swales, 1990, 2004), and others such as abstracts (e.g. Santos, 1996; Pho, 2008), reviews of literature (Kwan, 2005), methods (e.g. Peacock, 2011), discussions (e.g. Holmes, 1997) or conclusions (e.g. Yang & Allison, 2003; Morales, 2012). In a similar vein, the type of genre can be the same except that it can only be extracted in different sources. The academic discourse among empirical research articles, literature review articles, postgraduate dissertations (e.g. Bunton, 2002), academic reports (e.g. Drisko, 1997), or textbooks (e.g. Klerides, 2010) can be placed in this genre category, and a number of others across a range of disciplines (e.g. Brett, 1994; Holmes, 1997; Pupipat, 1998; Stoller & Robinson, 2013).

Indeed, Flowerdew (2000) and Bhatia (2002) explained that the significantly observable features among these very genres are diverse levels of variations in terms of lexicogrammatical usage and rhetorical organization employed in writing each specific disciplinary discourse. This has a profound impact on the development of practical

theories and implications for ESP and EAP. That is, genre analysis has extensively been used for pedagogical purposes, both EAP and ESP, in many similar ways. It is a certain prerequisite for pedagogical development, including teaching and learning activities, which has always been related to linguistic analysis and description, especially in the context of teaching writing which caters for language appropriateness in terms of grammar, lexis, register, discourse, and genre in any disciplines it serves. In other words, genre analysis is unquestionably in the sphere of English language teaching (ELT) in the specific areas of academic English, business English, legal English, scientific English, aviation English, English for medical professionals, etc.

2.2.2 Corpus Linguistics

The application of corpus linguistics which is concerned with collecting, structuring, and analyzing linguistic data with the assistance of computers is a new trend in discourse analysis (Sinclair, 1991). Starting in 1960s, the major wave of this linguistic branch revolutionized the language analysis in the way that linguists developed huge corpora representing a wide variety of natural language in real use. Then systematically scientific observation was made possible – whether, what and how people construct and use language in terms of lexicogrammatical aspects. That is to say, the development of corpus linguistics over the last five decades has brought a significant and powerful impact on studying actual language in authentic communication rather than relying on language samples drawn from native speaker intuition, thereby leading to a growing interest in collecting data of specific genres for analyzing language used in specialized settings such as that in academic and professional domains (Connor & Upton, 2004).

According to Connor, Upton & Kanoksilapatham (2007), in compiling specialized corpora for academic discourse analysis, it is essential to take the following parameters into consideration. They include: 1) Specific purpose for compilation or contextualization (e.g. to investigate particular lexical, discoursal or rhetorical features), 2) Contextualization: setting (e.g. lecture room), participants (e.g. role of reader/ writer), communicative purpose (e.g. instruct, advertise), 3) Size: whole corpus 1-5 million words/sub-corpus or small-scale corpus 25,000 - 250,000 words, 4) Genre (e.g. research articles, textbooks), 5) Subject matter/topic (e.g. applied linguistics/ elicitation), 6) variety of English (e.g. standard or non-standard, teacher or learner)

2.3 The Macro-textual Organization: Rhetorical Move Structures in Research Article Introductions (RAIs)

The introduction section in empirical research articles (RAs) has gained enormous attention from applied linguistic scholars in recent decades. The main reasons behind the inquisitiveness about this academic genre are many since the introduction is the first section elaborating overall mapping of research articles in virtually all disciplines and fields. It helps set out a realistic view about the statement of problems, relevant literature, research gaps, and purposes. Indeed, in the introduction section, academic writers are required to project background and rationale behind their individual research, refer to other relevant studies, and emphasize plausibility to fill any gaps in the existing literature and purposes (Swales, 1981, 1990). It is the transformation of knowledge that "requires writers to engage in the rhetorical act of persuading readers of their work's value, significance, and credibility" (Tardy, 2005, p.325). It possesses marked features which provide the basic overview of the content necessary for readers before reading the whole article. In other words, it provides readers with sufficient key information to decide whether that research article is worth further exploration.

Moreover, research article introductions often pose writers difficulty. Therefore, writing the introduction tends to be demanding to compose for many writers so they decide to finish it when much of an article has been completed (Swales, 1981, 1990, Feak & Swales, 2011, pp.1-2). As indicated by Cho's (2009) study, it has been found that writing the introduction part is hard, especially for non-native English writers in an EFL context. They need to put a lot of effort into deciding on the writing approach of what type and how much information is needed to sufficiently persuade the target audience to follow the whole article.

To create a novel research paradigm with the increased interest in the analysis of research article introductions (RAIs), Swales' work (2004) on rhetorical move-based analysis was generated after it had undergone many revisions from his initial move-based model (1981) and the Create-a-Research-Space (CARS) in 1990 version. It focused on a 'move' or 'move-based' approach in analyzing discoursal data. In this sense, 'a move' as defined in genre analysis by Swales (2004, p. 228) means 'a discoursal or rhetorical

unit that performs a coherent communicative function in a written or spoken discourse'. The identification of so-called discoursal units relies on two facets. First, it is considered as a functional element which is flexibly realized by linguistic realization in terms of grammatical units in sentence or paragraph level. Second, it can be signaled by lexical items representing different communicative functions in hierarchical orders which are distinctively divided into obligatory moves as well as obligatory/ optional steps in discourse.

Swales' move- focused approach has not merely been used to describe introductory sections in a wide range of scholarly specific and cross disciplines (e.g. Ozturk, 2007; Samraj, 2008; Loi & Evans, 2010), but it has also been the initial foundation for researching other main sections in empirical RAs, which Swales (1990) named as the 'conventional' generic structures of RAs. The structures include Introduction–Method–Results–Discussion sections or IMRD (Lin & Evans, 2012).

The purpose of CARS is to effectively capture and describe the rhetorical move structures in English research article introductions in a more comprehensive manner. That is to say, Swales (2004) created and elaborated his new move analysis model based on other researchers' feedback on the implementation of his earlier move-based models. Taking scholarly opinions into consideration, Swales successfully removed some unnecessary sub-moves or steps and added in new ones to reflect flexibility in linguistic realization. To illustrate, in identifying moves and steps, it is quite usual to notice some lexicogrammatical features which help indicate the types and steps of a move or step. For example, when presenting topic generalization, the present tenses are noticeably employed in the beginning of a paragraph, or the use of negative or quasi-negative items (e.g. very little, underexplored, there is no…) is obviously marked when the writer tries to point to gap indication, or the frequent use of 'was to' and 'aimed to' to signal the beginning of Move 3 as to present the current research study. However, although some of these signals are adequately noticeable (e.g. the point of this study was to investigate further…), some other moves and steps may seem to be subtle and difficult to identify, especially when there are little or no linguistic signals. Also, the occurrence of moves and steps can be placed interchangeably in different parts within the introduction. As Samraj (2005) found that making generalizations in Move 1 can occur after presenting

the research objectives in Move 3, the identification of moves and steps can be judged without the distinctive boundaries as proposed by Nwogu (1990), that identifying moves is like a bottom-up process which needs our schemata to doubly examine their true structural existence. As a result, Swales' newly revised model (2004) of research article introductions is comprised of the following moves and steps.

Figure 2.1 Swales' CARS model of move structures in research introductions

MOVE 1: Establishing a Territory (citation required)
          via
topic generalizations of increasing specificity

MOVE 2: Establishing a Niche (citations possible)
          via   [Possible recycling of increasingly specific topics]

    Step 1A: Indicating a gap
          or
    Step 1B: Adding to what is known
    Step 2 (optional) Presenting positive justification

MOVE 3: Presenting the Present Work (citations possible)
            via
    Step 1 (obligatory) Announcing present research descriptively and/or purposefully
    Step 2* (optional) Presenting RQs or hypotheses
    Step 3 (optional) Definitional clarifications
    Step 4 (optional) Summarizing methods
    Step 5 (PISF**) Announcing principal outcomes
    Step 6 (PISF) Stating the value of the present study
    Step 7 (PISF) Outlining the structure of the paper

*Steps 2-4 are not only optional but less fixed in their order of occurrence than the others
**PISF: Probable in some fields, but unlikely in others
Source: Swales (2004, p. 230, 232)

This new version of genre analysis in the introduction section is dramatically changed from the previous ones. On the one hand, the rhetorical move structure analysis, based on genre-based language studies, has become an important tool for revealing hierarchical textual organization. Following the seminal framework of Create-A-Research-Space (CARS) model, a research article introduction in the field of applied linguistics can be constructed in a way that it is to be interpreted and reproduced to

achieve specific goals in particular contexts. By the move-based composition, writers should be able to employ different discoursal segments that help represent various communicative functions. These segments can be regarded as semantic units projecting writers' communicative purpose (Swales, 2004). Basically, based on the CARS model (2004), in the introduction part, writers are supposed to illustrate their ideas in three obligatory moves.

Since examples of moves and steps are insufficiently provided in Swales's (2004) model, the researcher in this study thus intends to illustrate each move and step based on the CARS model with examples additionally selected from several studies across different academic disciplines (e.g. Kanoksilapatham, 2005; Del Saz Rubio, 2011; Lim, 2012; Amnuai, & Wannaruk, 2013; Cortes, 2013; Martín & Pérez, 2014), which were conducted under the model as follows.

Move 1: Establishing a Territory (citation required) via topic generalizations of increasing specificity is initially presented to give a generalization or the general layout of the target topic and addresses the establishment of the academic field being discussed. Swales (1990, p.144) clearly maintained that this very move is created as "appeals to the discourse community whereby members are asked to accept that the research to be reported is part of a lively, significant or well-established research area". That is, when writers initially introduce readers to the current study, they need to create a rhetorical discourse unit showing that it is important, relevant, interesting or problematic. This usually includes some related literature to lay some basic knowledge foundation to assure readers that the study is well-grounded and worth exploring. For example,

- *The anxiety that language learners experience in their foreign or second language learning has attracted scholars' interest* *for decades.* (Amnuai, & Wannaruk, 2013)
- *Prior work on firm experience has used a learning logic to affirm the notions* *that certain experience is better for undertaking particular activities (e.g. Haleblian and Finkelstein, 1999; Helfat and Lieberman, 2002) and that certain (novel) activities expose the limits of particular experience (Gavetti et al., 2005; Tripsas, 2009).* (Lim, 2016)

Move 2: Establishing a Niche (citations possible) helps create the steps to inform readers any limitations of the previously relevant literature that needs to be further studied. This is known as ***Step 1A: Indicating a gap***. The step can be done by showing negative or quasi-negative elements in gap indications so that they can create a demand for the current study. According to Lim (2012), there are several ways to indicate a gap. It can be presented by: 1) Highlighting the complete absence of research, 2) Stressing insufficient research in a specific aspect, 3) Revealing a limitation in previous research, and 4) Contrasting conflicting previous research findings. *For example,*

- *Firms in our study are guided partly by prior theory and empirical evidence and are partly exploratory in nature as there is **relatively little research** on this topic.* (Lim, 2012)
- ***Wright (1989) found that*** *the highest level of personal goals was set under the piece-rate, followed by salary plus goal attainment bonus and hourly flat rate.* ***However, Locke et al. (1968) found that*** *goal attainment bonus subjects have higher personal goals than piece-rate subjects **that conflicts with Wright's (1989) findings**…(*Lim, 2012)

Instead of writing Step 1A: Indicating a gap, writers may as well present the need to study the current research by writing ***Step 1B: Adding to what is known*** to imply what should be conducted in the ongoing research for a new direction that is worth further investigating. This is due to the fact that writers acknowledge the lack of study in a particular area, and the decision to carry on the target research trend or orientation is necessary. *For example,*

- ***Further research*** *on the processing of the main verb versus reduced RC ambiguity in L2 learners with different materials **is therefore necessary** to better understand how L2 learners process this ambiguity.* (Amnuai, & Wannaruk, 2013)
- *Although previous studies reported a positive relationship between positive affectivity of members and team performance, **study of** affect at the group level is in its inceptive period, **waiting for more empirical examinations** using field data.* (Lim, 2012)

Step 2 (optional) Presenting positive justifications Apart from the above conventional steps, writers can additionally provide positive causes or reasons for conducting the current study in a specific way. This optional step helps explicitly scaffold writers' voices to lead readers to desirable course of research action to follow. Normally, this optional step would be provided after establishing a gap in previous research. A justification is usually related to understanding or theoretical issues. *For example,*

- *The relationships, if found, **can provide significant explanations** of students success or failure in taking computer- based reading comprehension tests.* (Amnuai, & Wannaruk, 2013)
- *Although previous studies identified an important cytological marker, the identification of QTL for winter-hardiness component traits **would provide a tool for improving** winter hardiness through marker- assisted selection. This approach is **particularly suitable** because winter hardiness is sporadically expressed in field nurseries. **An additional benefit would be an enhanced understanding** of the relationships among different winter-hardiness component traits.* (Del Saz Rubio, 2011)

Move 3: Presenting the Present Work (citations possible)

In this final move, with the intention to describe the current study, writers are obligated to create a rhetorical move which announces the objective(s) of their studies. This could be said to introduce and detail the writers' solution to address the problems, fill the gaps, answer the specific questions or even overcome limitations of the previous studies stated in Move 2 (Establishing a niche).

Step 1 (obligatory) Announcing present research descriptively and/ or purposefully This step is significantly regarded as the head of Move 3 which is markedly noticeable by some key lexical items indicating research purposes (*e. g. aim, goal, objective, purpose, examine, investigate, extend, explore, focus, present, evaluate, provide, describe, etc.*). The step represents the main purpose(s) or aim(s) in the way that the present research is shaped and set out to accomplish. Quite often, the use of either a human agent (e. g. In this article, <u>we</u> attempt to…) or inanimate agents (e. g. This

article/study focuses on…) can be used as the subject to announce present research. For example,

- *Conceptualizing group level helping as group members' backup behaviour and affect management at the group level, **the present study extends** the team effectiveness literature by identifying various types of antecedents of group-level helping….* (Lim, 2012)
- ***The objectives** here **are to determine** if hedge funds exhibit performance persistence in the sense that some funds consistently have higher returns than others **and to test** hypotheses about the source of returns for hedge funds. In addition, the impact of size on performance **will be studied**.* (Cortes, 2013)

In the following, this very move may include other optional sub-moves or steps such as presenting RQs or hypotheses, definitional clarifications, stating the value of the present research, or outlining the structure of the research article as described below.

Step 2 (optional) Presenting RQs or hypotheses Writers may include research questions to simply indicate aims of the investigation or provide hypotheses to draw parallels with the announcement of principal findings in the introduction. The verbs such as hypothesize, expect, predict, or anticipate can be used to signal this step. For example,

- *To achieve the goals to investigate the extent of success of American English vowel perception by Standard Thai native speakers and to identify their perceptual patterns, four specific **research questions are raised as follows**.* (Amnuai, & Wannaruk, 2013)
- *Therefore, it **was hypothesized** that dietary lipid source (fish oil or corn oil) would affect serum concentrations.* (Del Saz Rubio, 2011)

Step 3 (optional) Definitional clarifications Some specific key terms could be added in order to explain in the research introduction. For example,

- *English reading abilities **refer to** the ability to understand what one reads.* (Amnuai, & Wannaruk, 2013)

Step 4 (optional) Summarizing methods Some important aspects of research methodology, theoretical framework, or procedures could be shown in this step. *For example,*

- *The present research tests the two explanations **in the context of a real-life case**.* (Cortes, 2013)
- *This study **employs Creese and Martin's (2003) 'multilingual classroom ecology' perspective** to explore the key issues of individual inter-relationships, interactions and ideologies within classrooms where linguistic diversity exists.* (Amnuai, & Wannaruk, 2013)

Step 5 (PISF) Announcing principal outcomes In this step, writers find the aspects of research findings important to emphasize, therefore, reporting them as part of the introductory section. However, this step may not be reported in all disciplines. For example,

- ***Our results show that*** *U2snRNP is functionally associated with the E complex and is also required for its assembly.* (Kanoksilapatham, 2005)
- ***Participants*** *with dysfunctional attitudes **showed** increases in depressed mood following a negative admission outcome because they developed both a negative view of the self and the future. (*Martín, & Pérez, 2014)

Step 6 (PISF) Stating the value of the present study This step presents the benefits of the current study associating it with future applications or implementations to explicitly emphasize the value of the study for the scholarly community in a broad manner. Such merits of the study can be recognized by key lexical items such as useful, important, valuable, novel, help, etc or some other expressions to emphasize its value. For example,

- *It is hoped that **this study will be of some value for pedagogical purposes**.* (Amnuai, & Wannaruk, 2013)
- *Thus, **our study** adds to the small literature base and **improves on past studies in a number of ways**. (*Martín, & Pérez, 2014)

Step 7 (PISF) Outlining the structure of the paper The last step presents the main structure of the research paper to inform readers the informative outlines they can expect while going through the paper. To indicate structure of the paper, writers use certain verbs (i.g. organize, structure, shape, review, examine, investigated, construct, divide) and transition signals (i.g. first, second, third, then, next, finally, the following, what follows, as follows, In section…) For example,

- *This argument is developed through **four sections***. ***The first section** summarises the March and Olsen framework. Drawing on this framework and on more specific empirical literatures,* ***the second*** *advances four conjectures about the trajectory and renewal of democratic governance.* ***The third*** *evaluates these conjectures through a summary case study of the post‑war Australian political development. The wider implications of this analysis are tentatively explored in* ***a final section***. *(*Martín, & Pérez, 2014)

All in all, writers need to be able to create different discourse segments of rhetorical moves to help them represent intended communicative functions to project writers' communicative purpose (Swales, 2004). To put it another way, writers need to initially create a rhetorical move to specify topic generalizations of increasing specificity, showing that the target study is important, interesting or problematic. This move typically includes some related literature. Next, it is imperative to point out the necessity of conducting the present research via indicating a possible gap, or what is known and should be done in the next studies to fulfill what is missing in the existing literature. Research benefits or positive justifications can also be added here to assure readers that the study is well‑established and worth exploring. In the final steps, announcing the present research descriptively or purposefully is a must since it will help guide readers through what is the major point in reading the rest of the research article. This may include other optional steps such as presenting research questions, clarifying some central terms in the research, stating the value of the work, and outlining the structure of the article.

The next topic of the literature review is concerned with the theoretical framework of metadiscourse as its principle was used to analyze and classify the second linguistic dimension within the textual organization of this study.

2.4 Metadiscourse in Academic Texts

In communication, Ädel (2006) maintained that people do not merely use language to talk about their world of favorite topics or about themselves, but people also tend to actually use language to 'talk about talk'. That is to say, apart from explicitly commenting on a variety of their universal experiences in the world and topics of discussions, people are most likely to use language to refer to 'the situation of communicating' which is largely based on the ability of human language to describe some kinds of communicative aspects about itself. This unique property of natural language code for social communication is called 'reflexivity' (Lynos, 1977) and it is fundamental to all human communication. In order to yield effective communication by means of producing linguistic patterns, people use language reflexively whether in spoken or written forms.

One important linguistic representative of the reflexivity is 'metadiscourse' (Ädel, 2006). Metadiscourse in written texts is actually a set of open linguistic items in propositions which can be classified in various ways. Examples of metadiscourse markers could range from the use of single word forms, phrases, clauses, strings of sentences (e.g. I, first, then, would, because, clearly, in other words, stated formally, as we all know, let's discuss…, it is true to say that…) to the use of punctuation and typographic markers like parentheses and exclamation marks to convey attitudes and propositional force to within the textual organization (Hyland, 2005a; Ädel, 2006). Hence, Metadiscourse helps message senders to reach communicative goals by evolving the intended discourse through explicitly guiding, directing, and informing listeners or readers how to interpret and how to respond to that intended discourse (Crismore, 1989, p. 64, cited in Ädel, 2006).

In the production of academic genre, it is absolutely vital for writers to organize data and knowledge into meaningful and comprehensible discourse for target readers, which truly requires a skill of persuasive writing within well-structured organization. This is due to the fact that academic communication functions uniquely and socially even within a variety of disciplinary fields (Swales, 1990; Hyland, 1998). This inevitably requires some specific set of linguistic units to convey the target discourse. Therefore, the familiarity with rules and conventions of a particular discourse genre is an important

aspect of academic competency in general. To be familiar and produce the desired academic discourse genre, metadiscourse comes to play a central role in fulfilling this task since taking account of readers' knowledge and building ongoing interactions between writers and readers is a must of such competency. As Hyland (1998a) maintained in his earlier study of metadiscourse:

> "Based on a view of writing as a social and communicative engagement between writer and reader, metadiscourse focuses our attention on the ways writers project themselves into their work to signal their communicative intentions. It is a central pragmatic construct which allows us to see how writers seek to influence readers' understandings of both the text and their attitude towards its content and the audience." (p. 437)

Metadiscourse in academic written contexts could be typically characterized as 'writing about writing' (Williams, 1981) or 'discourse about discourse' (Vende Kopple, 1985) or 'text about text' (Ädel, 2006), all of which refer to linguistic items of expressions which writers use to deliver self-reflection and evolve the content and organization to 'the imagined readers' of the target text without having to indicate the explicit meaning of particular metadiscourse markers (Hyland, 1998a). It has been viewed as the significant discourse element that stays beyond the fundamental content driven by the propositions. Therefore, metadiscourse involves the ideas of organizing, classifying, interpreting, evaluating, and reacting to information in the given text between writers and readers (Vende Kopple, 1985). In other words, it is considered as 'a social engagement' in writing that writers intend to pragmatically display their evaluations, attitudes and commitments for their work while, at the same time, engaging target readers and organizing the discourse. In addition, not only can metadiscourse purposefully be used as interpersonal resources to organize the stance or opinions in discourse towards its propositional content, but it can also, in the same vein, enable writers to construct explicit and logical arguments for expectations and needs of their target readers (Hyland, 2002, 2004a, 2004b, 2005a).

The theoretical concept of metadiscourse is a relatively new, but highly dynamic, topic in academic discourse literature (Ädel, 2006) and Hyland (1998, p. 437)

reflected that metadiscourse has become an increasingly popular framework and 'important to research in composition, reading and text structure' in both spoken and written discourse (e.g. Vande Kopple, 1985; Crismore & Farnsworth, 1990; Hyland, 2004a, 2004b, 2005a, 2010; Jiang & Hyland, 2016) stating "It is a central pragmatic construct which allows us to see how writers seek to influence readers' understandings of both the text and their attitude towards its content and the audience" As a result, the metadiscourse concept has extensively been acknowledged and utilized by academic discourse researchers to figure out linguistic patterns in interaction and discuss diverse aspects of academic language in use.

One of the best ways to have a clearer picture of metadiscourse is by viewing them through the specific kinds of the metadiscourse taxonomies proposed by Hyland (2004a, 2005), the influential scholar whose seminal classification of metadiscourse is the firmly established framework for copious studies relating to metadiscoursal features. Hyland has put considerable efforts and concentration into the metadiscourse studies of the English language and academic writing for decades (e.g. Hyland, 1996, 1998a, 1998b, 1999a, 1999b, 2001, 2002a, 2002b, 2003a, 2003b, 2004a, 2004b, 2005a, 2005b, 2006, 2007a, 2007b, 2008a, 2008b, 2009, 2010; Jiang & Hyland, 2016). His combined version of metadiscourse features (Hyland, 2004a, 2005; Jiang & Hyland, 2016) used in this study is displayed as follows.

Table 2.1 Hyland and Jiang & Hyland's metadiscourse taxonomy

1. Interactive metadiscourse	1.1) **Transitions** (e.g. moreover, therefore, however)
	1.2) **Frame markers** (e.g. firstly, with regard to, overall)
	1.3) **Endophoric markers** (e.g. as previously stated)
	1.4) **Evidentials** (e.g. X and Y (2017) pointed out that)
	1.5) **Code glosses** (e.g. that is, such as, like, for example)
2. Interactional metadiscourse	2.1) **Hedges (e.g, may, could, tend, seem, likely, possibly)**
	2.2) **Boosters** (e.g. will, must, of course, especially, obviously)
	2.3) **Attitude markers** (e.g. important, perfect, unfortunately)
	2.4) **Engagement markers** (e.g. please note, it is common that)
	2.5) **Self-mentions** (e.g. I, my, we, our, the researcher)
3. Metadiscourse nouns	(e.g. belief, danger, example, possibility, relation, result)

This model of metadiscourse features gives the detail in categories based on their functions in the following section. In order to answer the research questions in a more comprehensive manner, other specific studies of metadiscourse emphasizing each major category of Hyland's (2004a, 2005a) taxonomy were additionally included to form a functional extension of his framework for this analysis. They were studies concerning sub-types of transitions (e.g. Cao & Hu, 2014), evidentials (e.g. Hyland, 1999; Thompson & Tribble, 2001; Jalilifar, 2012; Jalilifar & Dabbi, 2013), frame markers (Hempel & Degand, 2008; Cao & Hu, 2014), endophoric markers (Bunton, 1999), code glosses (e.g. Hyland, 2007b), hedges (e.g. Hyland, 1996, 1998b; Hu & Cao, 2011); boosters (e.g. Hyland, 1998b; Hu & Cao, 2011), engagement markers (Hyland, 2005b; Marković, 2013), attitude markers (e.g. Dafouz-Milne, 2008), self-mentions (Hyland, 2001, 2003b; Harwood, 2005), metadiscourse noun (Jiang & Hyland, 2016). The examples following after each category were intentionally chosen from these numerous metadiscourse analyses.

1. Interactive metadiscourse: This group of metadiscourse markers primarily manages information flow by creating the discoursal cohesion and logical coherence, thereby guiding readers through texts. Interactive metadiscourse markers are therefore like explicit connectives which form objective references to any relevant elements in the discourse. They are used with the purpose to build the structure and organization of a text and to facilitate readers' comprehension. Their sub-categories are divided according to their linguistic functions in language use as follows.

1.1) Transitions express semantic relations between main clauses of propositions so that the textual cohesion is formed. They allow readers to interpret pragmatic meaning such as signaling cause-effect or contrastive relations of ideas and opinions of writers through intra-sentential connectors (i.g. although, since, because) or inter-sentential connectors (i.g. however, in addition, therefore, furthermore). Specifically speaking, transitions, which are typically in forms of conjunction and other linking signals, are used to associate ideas and ensure readers are able to comprehend the intended meanings between preceding and subsequent information within a text in an organized manner. Following the distinctively defined transitions in metadiscourse based on Cao & Hu

(2014), there are three sub-types of them in academic writing including ***additive transitions***, ***contrastive transition****s* and ***inferential transitions***.

1.1.1) ***Additive transitions*** express relations of newly added ideas with the previous ones. For example,

- *I believe that in addition to providing a better understanding of the ways second language writers control the resources of English, the study **also** offers insights into a crucial, and often overlooked, dimension of these resources.* (Cao & Hu, 2014)
- *Their writers, **moreover**, are normally studying part time and are looking forward to returning to their professional workplaces rather than a career in academia.* (Cao & Hu, 2014)

1.1.2) C*ontrastive transitions* show relations of comparison or contrast. For example,

- *We should, **however**, identify and assess the high-risk factors first so that they become predictable.* (Cao & Hu, 2014)
- *We also expected the GD-tool to have positive effects on students' perceptions of their online communication and collaboration. This was not confirmed. **On the contrary**, students in the ID condition reported significantly higher levels of positive behavior.* (Cao & Hu, 2014)

1.1.3) ***Inferential transitions*** express relations of cause and effect between sentences or paragraphs. For example,

- *I'd avoid using jargon **because** my examiners should be in the same discipline, but there are still many different areas of studies.*
- ***Consequently,** there is much more DNA in a eukaryotic chromosome than in a bacterial chromosome, the eukaryotic genome can be replicated much faster…*

1.2) Frame markers refer to discourse acts, sequences, or stages. They function as explicit indicators to textual components within text boundaries in order to connect propositional units in sequence, point to text stages, and announce purposes in discourse. Writers can also use them to introduce shifts or changes of their ideas and perspectives

in different steps of arguments in the discourse. The markers might appear in clusters to organize points and specify what writers intend to indicate in the next stage. According to Hempel & Degand (2008) and Cao & Hu (2014), frame markers could be divided into four sub-types, namely, *announcers, sequencers, topicalizers,* and *discourse-labels*

1.2.1) *Announcers* inform discoursal goals of writers. They are sometimes known as illocution markers. For example,

- *The research hypotheses developed for this research are stated as follows…* (Hempel & Degand, 2008**)**
- *The next question I want to examine is* the relationship between the teacher's language proficiency and teaching effectiveness. (Cao & Hu, 2014)

1.2.2) *Sequencers* function as signals indicating the order of internal discourse units. For example,

- *Crops accounted for a significant proportion of heavy metals dietary intake.* ***The reasons are two fold. Firstly****, crops are the bottom positions of many food chains and food webs.* ***Secondly****, vegetables are one of the major dietary components of Hong Kong people.* (Cao & Hu, 2014)

1.2.3) *Topicalizers* are the third sub-type used to introduce or shift between topics of a particular subject being discussed. For example,

- *With regard to* relational factors that can contribute to conflict, supervisors mentioned the evaluative nature of supervision and concomitant power differential as critical factors. (Hempel & Degand, 2008**)**

1.2.4) *Discourse- labels* help readers to comprehend messages in different sets of paragraphs or discourse units. For example,

- *Overall*, I therefore believe that my way of proceeding has been set up not to predispose or prejudge the existence of discourse communities, but if anything to presume the opposite. (Cao & Hu, 2014)

1.3) Endophoric markers refer to reflexive information in other parts of the text. The markers provide additionally relevant information available for readers should they wish

to further investigate more of writers' scholarly ideas and arguments. As Bunton (1999) suggested, the markers help boost readers' understanding by associating with signals in terms of linear and non‑linear text references indicating how the subject matter links to the other part of the text. They are divided into the sub-types of ***linear references*** and ***non-linear references***

1.3.1) ***Linear references*** refers to reflexive language which is used to explicitly direct readers through each stage of the text as previews, reviews, or overviews in the text. For example,

- ***As previously stated****, the church was cited as a source of dogma and judgment in developing early notions of being Christian and in stifling growth as an ally.* (Bunton, 1999)
- ***In the following subsection****, we consider a variety of possibilities and whether they might be beneficial as well as practical, given the realities of the instructional context.* (Bunton, 1999)

1.3.2) ***Non‑linear references*** are the markers employed to refer to figures, tables, photographs, and the like. For example,

- *The architecture is rearranged **as shown in Fig. 3.2***. (Bunton, 1999)
- ***The last column of Table 2*** *shows the test for the differences among these three models.* (Bunton, 1999)

1.4) Evidentials refer to source of information from other accredited texts written by other scholars in the same field. Evidentials which are well-known as academic citations play a crucial role in constructing writers' scholarly arguments in terms of enhancing credibility of the work itself as well as establishing both contextualization and intertextuality for target readers. Besides, the reports of previous studies can show an awareness of research acknowledgement of the academic community and help assess the quality of a particular work itself (Swales, 1990; Hyland 1999; Thompson & Tribble, 2001; Charles, 2006; Jalilifar, 2012; Jalilifar & Dabbi, 2013). These academic citations could basically be separated into two main sub‑types in accordance with their surface forms (Swales, 1986; Swales, 1990). This conception was later developed by Thompson

and Tribble (2001) as the classification was expanded into *integral citations* and *non-integral citations* with their different aspects.

1.4.1) *Integral citations* include the cited source as part of the text. The typical patterns are that the citation itself can perform as the agent controlling a verb or it is written down in a phrase. They can either integrate or exclude the year reference. In other words, they refer to names of previous scholars or researchers that are clearly provided in academic texts as part of a sentence element without the use of parentheses. There are three sub-types of the integral evidentials.

1.4.1.1) **Verb controlling** is the evidential acts as the agent of the verb in an active or passive voice. For example,

- *Brown and Yule (1983, p.183) point out that theme is not only the starting point of the message, but it also has a role in connecting what has already been said.* (Jalilifar & Dabbi, 2013)

1.4.1.2) **Naming** refers the use of evidentials as part of a noun in a prepositional phrase in a sentence. For example,

- *According to Oxford (1994), a second language is a language studied in a setting where…*(Jalilifar & Dabbi, 2013)

1.4.1.3) **Non-citation** is used to provide only the scholar's name without a year reference. For example,

- *Hyland states that citation represents choices that carry…*(Jalilifar & Dabbi, 2013)

1.4.2) *Non-integral citations* refer to the exclusion of academicians' names and year references from a sentence element in academic texts by putting them in parentheses. There are four sub-types of the non-integral group as follows.

1.4.2.1) **Source** indicates where the paraphrased or summarized idea is taken from. For example,

- *Learning style is a biologically and developmentally imposed set of characteristics that make the same teaching wonderful for some terrible for others **(Brown, 2000)***. (Jalilifar & Dabbi, 2013)

1.4.2.2) **Identification** identifies scholars or researchers within the sentence it refers to. It is literally related to topics of previous studies usually marked with or without e.g. For example,

- *In fact, a great deal of work has been done in the area of learner autonomy **(Haughton & Dickinson, 1988; Cotterall, 1995; Murray, 1999; Chan, 2001, 2003; Humphreys & Chan, 2002; Clegg, 2004; White, 2006)***. (Jalilifar & Dabbi, 2013)

1.4.2.3) **Reference** is basically signaled by the use of the directive "see" to guide readers to relevant information from other sources. For example,

- *Acquisition is sufficient for L2 learners…**(See Cobb & Meara, 1998, p.2)***. (Jalilifar & Dabbi, 2013)

1.4.2.4) **Origin** indicates the pioneer of a concept, technique or theory. For example,

- *…discourse markers, which are also known by a variety of names, such as pragmatic markers (Schiffrin, 1987), discourse particles (Schourup, 1999), and discourse connectives (Blackmore, 2002).* (Jalilifar & Dabbi, 2013)

1.5) Code glosses function as signals to the restatement of the ideational information. The use of these metadiscourse markers is to enable writers to supply extra information necessary for helping readers to better understand writers' intended meaning. Together, the markers show writers' prediction of readers' background knowledge and realization of how to support readers' understanding. Hyland (2007) divided code glosses into two sub-functions. They include *reformulation* and *exemplification*.

1.5.1) *Reformulation* is the restatement of an earlier utterance to explain to readers from a different angle and emphasize the utterance. It is the writer's plan to purposefully present another message to reach rhetorical effects in meaning. For example,

- *Between what Braj Kachru (1988) appropriately calls the Outer Circle, **or** <u>the countries where English was brought by colonization</u>, and the Expanding Circle . . .* (Hyland, 2007)
- *The term 'natural' then functions as a mythic construct in the context of fashion discourse (Barthes 1983), **that is**, <u>an amorphous ideal whose form is continuously reformulated in ways that sanction present-day standards</u>.* (Hyland, 2007)

1.5.2) ***Exemplification*** is expressed through any lexical item which helps clarify the earlier statement by pointing to an example. For example,

- *Other units get changed to a more dramatic extent: SI units for moment of inertia, **for example**, <u>becoming kg.m rad</u>.* (Hyland, 2007)
- . . . students find reading in English to be difficult and that self-selected reading did not seem as valuable as other activities (**e.g.,** <u>required school work, TOEFL study</u>). (Hyland, 2007)

    2. Interactional metadiscourse: These metadiscourse markers allow writers to express their viewpoints and involve readers into their intended expressions pragmatically. They directly engage readers in interpreting meaning of textual arguments through the display of writers' persona related to the norms of particular academic disciplines. Interactional metadiscourse thus introduces a writer's subjective level of personality into a text through evaluating and commenting on the text material itself. In other words, writers' perspectives based on the propositional information and the ways in which readers are involved in that academic text could be discovered through the use of interactional resources. The writing effect is established as a result of the relationship between writers and readers via the use of this kind of metadiscourse. Their sub-categories are divided according to their linguistic patterns in language use as follows.

2.1) Hedges withhold full commitment to proposition. They play an important role in marking writers' avoidance to express a direct or absolute certainty to information presented. The way they imply that writers are not fully committed to the referential information enables writers to downplay their claim with modesty, allowing negotiation of belief and encouraging further examination and discussion for clearer answers with

readers to the topic. Besides, they could help mitigate the force of utterances to achieve the effect of politeness in speech acts (Holmes, 1990). According to Hu & Cao (2011), hedges can be commonly found as *model auxiliary verbs*, *epistemic lexical verbs*, and *epistemic adjectives*.

2.1.1) *Model auxiliary verbs* such as may, might, could are used as helping verbs to indicate modality. For example,

- *This **might** also indicate that the enthusiasm and goodwill factors were effects of this type of enrichment program.* (Hu & Cao, 2011)

2.1.2) *Epistemic lexical verbs* can also be regarded as hedges since they soften or decrease the force of the messages conveyed. The term "epistemic" in this regard refers to "any modal system that indicates the degree of commitment by the speaker to what he says" (Palmer, 1993, p. 51). For example,

- *All this **seems** to indicate that zero anaphora in Chinese, …, are not grammatically and pragmatically determined.* (Hu & Cao, 2011)
- *These findings **tended** to suggest that on average the nurse's perceptions towards CQI programme regarding these four aspects are quite neutral.* (Hu & Cao, 2011)

2.1.3) *Epistemic adjectives and adverbs* can very often be expressed in the form of hedges to mitigate the force of propositions. For example,

- *…it is **likely** that they were more oriented towards Western medicine than traditional Chinese medicine in coping with their illness.* (Hu & Cao, 2011)
- *Nevertheless, it is also **possible** that we may overestimate the degree of divergence in per capita income.* (Hu & Cao, 2011)

2. 2) Boosters emphasize writers' force or certainty in proposition. This type of metadiscourse, originally known as emphatics (Hyland 1998), assists writers to imply the confirmation of their belief, ideas, or facts. They convey the high degree of strength in statements to demonstrate writers' commitment to content of texts. Boosters enable writers to emphasize shared messages and engage readers in their arguments. Readers

are at the same time expected to involve in such propositional information as convinced participants. Based on Hu & Cao (2011), boosters could be classified into sub-types according to different forms of lexical patterns. They include ***modal auxiliary verbs***, ***epistemic adverbs***, and ***epistemic phrases or clauses***.

2.2.1) ***Modal auxiliary verbs*** are used to strengthen or amplify the force of utterances as boosters. For example,

- *I **will** demonstrate how these identity talks denoted changes in the way public housing tenants defined their own identities.* (Hu & Cao, 2011)
- *Writers **must** calculate what weight to give an assertion, marking the extent they regard it as reliable and perhaps claiming protection in the event that it turns out to be wrong.* (Hu & Cao, 2011)

2.2.2) ***Epistemic adverbs*** can usually be found among the expressive words which normally emphasize the scale of writers' commitment and thus intensify the propositional information. For example,

- ***Of course**, I make decisions about the findings I have, but it is more convincing to tie them closely to the results.* (Hu & Cao, 2011)
- *… , for static images **surely** cannot trigger our capacity to recognize movement. …With a few interesting exceptions we **obviously** do not see a static image as moving. This too creates problems, …, and this seems **highly** dubious.* (Hyland, 2005b)

2.2.3) ***Epistemic phrases or clauses*** help increase the illocutionary force of speech acts (Holmes, 1984). They thus could also be considered as boosters. For example,

- ***It is certainly true** that many arguments involve multiple premises.* (Hyland, 2005b)
- *Like many ESP practitioners today, **I believe that** knowledge of any genre is best viewed as a crucial strategic resource.* (Hyland, 2005b)

The classification of boosters could be problematic since various scholars have interpreted the use of the markers and their meaning differently. Some scholars (e.g. Cao & Hu, 2014) placed clear-cut examples in their use on epistemic lexical verbs (e.g.

demonstrate, show, find, point out) as a sub-type of boosters, while this concept has escaped other scholars' (e. g. Hyland, 2004a, 2005a; Dafouz-Milne, 2008) attention in classifying their status. Due to this ambiguity in these prior studies, such lexical verbs were excluded from the markers' sub-types in this study.

2.3) Attitude markers express attitudes to textual information in discourse. They reveal writers' judgments based on their own affective perspectives or attitudes which add to propositional information in a variety of ways, such as conveying agreement, inquisitiveness, surprise, significance, frustration and so forth. According to Hyland (2005b), they could be signaled especially by attitude verbs (e. g. prefer, agree), adjectives (e. g. important, suitable, outstanding), adverbs (e. g. unfortunately, surprisingly). To grasp the pragmatic role of the attitude markers in a structured fashion, some part of the identification initially made by Dafouz-Milne (2008) has been adopted in this study. That is to say, attitude markers can primarily be recognized in terms of *attitudinal adjectives and adverbs* that can stand alone or in pairs. For example,

- *Certainly, I find it **remarkable** that even as **proficient** a non-native user as Yao should have introduced such an **unexpected**, **subtle** and **self-evaluative** question about her writing into the discussion.* (Dafouz-Milne, 2008)
- ***Unfortunately**, there are some students, who are **significantly disadvantaged**, resulting in an **adverse** affect on their language learning abilities.* (Dafouz-Milne, 2008)

When writers address their affective values towards a particular point of content in the text, the expressions show the volume of writers' reflection that could also be used to illuminate their attitudes. To set the scope of this study's framework, attitude verbs (e.g. like, prefer, agree) have been cut out from my analytical framework since they are typically found in spoken discourse. They were, as a result, rarely found in the corpora and did not reflect their significant characteristics and meaningful results for this study.

2.4) Engagement markers are used by writers to explicitly build a relationship with readers. To include readers as discourse participants, these metadiscourse devices explicitly address readers with the purpose of drawing their attention to the contextualized text. According to Hyland, (2005b), the two main purposes in using the

markers are: 1) to acknowledge readers' needs and expectations, since readers are regarded as participants who simply interact with writers when they read, and 2) to guide readers to effectively interpret the message conveyed by pulling them into discourse perspectives with questions, directives and references to shared knowledge. There are five main sub-categories of engagement markers including *reader pronouns*, *personal asides*, *appeals to shared knowledge*, *directives*, and *questions*.

2.4.1) *Reader pronouns (e.g. you, your)* are the most common way to bring readers into a discourse since their presence can directly be acknowledged. The first person plural pronouns *(e.g. we, our, us)* can also perform as reader pronouns because they help explicitly position and especially involve readers in an argument. For example,

- *Part of what **you** are doing in writing a paper is getting **your** readers onside, not just getting down a list of facts, but showing that **you** have similar interests and concerns.* (Hyland, 2005b)
- *Although **we** lack knowledge about a definitive biological function for the transcripts from the 93D locus, their sequences provide **us** with an ideal system to identify a specific transcriptionally active site in embryonic nuclei.* (Hyland, 2005b)

2.4.2) *Personal asides* function as a key reader-oriented strategy offered by the use of a short monologue of writers who insert or shortly interrupt in the argument to provide writers' personal comments on any theoretical conceptions or ideas mentioned previously. For example,

- ***He above all provoked the mistrust of academics, both because of his trenchant opinions (often, it is true, insufficiently thought out) and his political opinions.*** (Hyland, 2005b)

2.4.3) *Appeals to shared knowledge* are another important sub-type of engagement making readers recognize something which is true, familiar or accepted based on presupposition between writers and readers. This can be done through providing readers with particular views thereby leading to another new argument. For example,

- *Of course, **it is common that** the indigenous communities of today have been reorganized by the catholic church in colonial times and after,...* (Hyland, 2005b)

2.4.4) ***Directives*** direct readers to accept or see things in a way determined by writers. They are normally signaled by the use of modal auxiliary verbs of obligation, imperative verbs, or predicative clauses indicating writers' judgment. For example,

- ***Note that*** *the bit rate is maintained at 4,000 bps although frame rates are different and the unused bits can be used for future expansion.* (Hyland, 2005b)
- ***It is important to recognise that*** *respect and a personal touch will go a long way in overcoming their possible resistance to supervision.* (Hyland, 2005b)

2.4.5) ***Questions*** represent the last sub-type of engagement markers which take readers to an area where writers can further display their ideas and opinions. Questions can also intrigue or invite readers to examine the subject matter in a kind of conversational basis between writers and readers. For example,

- ***Is it, in fact, necessary to choose between nurture and nature?*** *My contention is that it is not.* (Hyland, 2005b)
- ***What do these two have in common, one might ask?*** *The answer is that they share* the same politics. (Hyland, 2005b)

2.5) Self-mentions indicate explicit reference to author(s). Known as person markers, they present the writer(s) existence in contributing what s/he or they have conducted as researcher(s) in academic work. They are found in the form of ***nouns, first-person pronouns***, and ***possessive adjectives***.

2.5.1) ***Nouns*** referring to writers (e.g. the researcher', the research team, the writer, the author). For example,

- ***The researchers*** *found the theories well-grounded and could be appropriately used as the analytical tool for this comparative study.* (Hyland, 2005b)

2.5.2) ***First-person pronouns*** (I, we, me, us) are frequently found in academic writing. For example,

- *I will demonstrate how these identity talks denoted changes in the way public housing tenants defined their own identities.* (Hyland, 2005b)
- *In this section, **we** give detailed information about Canada's energy resources...* (Hyland, 2005b)

2.5.3) ***Possessive adjectives*** (my, our), are the most common forms of self-mentions. For example,

- *In spite of the individual differences among the instructors in their evaluation, **my** analyses revealed certain commonalities among the instructors.* (Hyland, 2005b)
- *Lastly, **our** model offers insights into customer behavior and clientele effects.* (Hyland, 2005b)

3. Metadiscourse nouns: Apart from the above two main resources, the newly additional use of metadiscourse nouns (Jiang & Hyland, 2016) is another key element of metadiscourse. It functions as a pragmatic indicator based on contextual lexicalization which helps readers shape understanding by locating relevant content somewhere in a text. Because it allows writers to organize a cohesive flow of information and entices readers into discourse at the same time, a metadiscourse noun can be regarded to have both interactive and interactional properties. The most frequently found metadiscourse noun is *noun + post-nominal clause* (Jiang & Hyland, 2016). This type of metadiscourse noun will be the focused subjects in this present study as it will make us understand the use of metadiscourse functioning in the immediate within-clause context. Metadiscourse nouns can function in three different dimensions to assist writers to create *entity*, *attribute*, and *relation* in their texts (see the list of typical metadiscourse nouns in Jiang & Hyland, 2016, p.24).

3.1) **Entity** points to an independent existence of knowledge or perceptions which could be characterized by asserting writers' judgement through the use of nouns like assumption, belief, claim, decision, evidence, example, idea and so on. For example,

- *The first study targeted several brand communities under the **assumption** <u>that participants in these communities are highly involved consumers and likely to have relatively close ties to brands</u>.* (Jiang & Hyland, 2016)
- *An alternative **example** <u>of how an SRR could be perturbed with a microfluidic capillary</u> is shown in Figure 2.* (Jiang & Hyland, 2016)

3.2) Attribute projects writers' evaluations of either status, manner or quality of a particular entity. Nouns in this category are such as danger, difficulty, extent, importance, method, option, pattern, possibility, and way. For example,

- *Criticisms of genre-based teaching include the potential **danger** <u>of reifying the power structures in which genres are embedded</u>.* (Jiang & Hyland, 2016)
- *…it can be used to represent Fournier consumer brand relationship typology because it allows for the **possibility** <u>that different configurations of relationship dimensions result in different consequences depending on how the relationship is formed</u>.* (Jiang & Hyland, 2016)

3.3) Relation could be used to indicate writers' understandings towards the association of information in their written text. The nouns in these categories are such as consequence, relation, reason, and result. The sample is such as,

- *…the quality of health services provided for blacks with the **result** <u>that high-tech academic medicine coexisted with overcrowding and lack of resources</u>.* (Jiang & Hyland, 2016)

Hyland's (2004a, 2005) detailed description of metadiscourse features above were used as a major analytical tool for identifying and comparing the metadiscourse items within the two sets of corpora.

2.5 Previous Research Studies

This part of the literature review aimed to explore some previously research studies in academic discourse related to rhetorical move structures in research article introductions (RAIs) and the use metadiscourse across disciplinary fields in several aspects.

2.5.1 Studies on Rhetorical Move Structures

By using the Swales' CARS model (1990), Jogthong (2001) conducted an analysis of forty Thai research article introductions (RAIs) written by Thai academic writers. The RAIs were extracted from Thai academic journals in the fields of education and medicine. The results showed that the move patterns of the RAIs were compatible with the framework model but some particular moves and steps in the introductions were not relatively consistent with the model. That is to say, Thai writers tend not to project their criticism and evaluation towards the academic work of others. They used different strategies in establishing a niche, such as pinpointing prior difficulties or problems. Thai academic writers also do not indicate the research results and structure outlines of their studies in the introduction section. When announcing their current research, they very often prefer to indicate the value and implications of their research studies. In terms of linguistic items in Thai RAIs, it is clear that the writers tend to employ a few reporting verbs whereas those written by English writers are composed with several kinds of reporting verbs. Additionally, the less frequent use of passive voice constructions and the prominent feature of topicalization in Thai language are significantly observable in the Thai RAIs.

Ozturk (2007) purposively identified the textual organization of research article introductions (RAIs) in applied linguistics based on Swales (1990)'s genre-based model. In order to understand a variety of genres within one single discipline, research articles from two sub-disciplines of applied linguistics, including second language acquisition and second language writing research, were the subjects of this study. The results showed that the move structures of the two sub-disciplines were different. One type of move structure in the second language acquisition corpus, namely move 3, was substantially noticeable when it was usually followed by topic-specific subheadings, while two types of move structures, by an extensive use of 'topic generalisation' (M1S2) and 'reviewing previous research' (M1S3) in the second language writing corpus, were obvious and equally important. The researcher concluded the findings in terms of the academic fields which have long "established" and recently "emerging".

Hirano (2009) conducted a comparative study, in terms of their rhetorical organization, of twenty research article introductions (RAIs) using Brazilian Portuguese and English within a subfield of applied linguistics. Adopting Swales' (1990) CARS model as an analytical tool, it was found that the introductions in Brazilian Portuguese had different rhetorical move structures from those of the model. This was opposite to the introduction section written in English which closely followed the model. Obviously, the key explanation to the results is due to the cross-cultural differences between Brazilian Portuguese and English.

Making use of the same framework of Swales's (1990) and Swales's (2004) move analysis, Loi and Evans (2010) looked into the rhetorical organization of English and Chinese research article introductions in the field of educational psychology. Their study focused on a corpus of forty research articles: twenty were written in Chinese by native Chinese speakers and the other twenty were written in English by first-language English users. The findings indicated that English and Chinese research article introductions are typically constructed based on the three primary moves including Move 1, Move 2 and Move 3 as those found in the Swales' model. Nevertheless, certain rhetorical move organization found in the two sets of introductions was different in the extent to which the moves and steps were employed. The rhetorical moves and sub-moves according to the model were employed less in Chinese introductions when compared to those found in the English RAIs. This indicated different academic writing styles in the two languages.

Jalilifar (2012) carried out a comprehensive study on one hundred and twenty research article introductions in various sub-disciplines of applied linguistics, each of which was drawn from 40 local and international RAIs, to find out the overall generic organizational moves that were written in local Iranian and international journals in English for General Purposes (EGP), English Specific Purposes (ESP) and Discourse Analysis (DA). In accordance with the Swales's (2004) Create A Research Space (CARS) model, the results showed that there were some distinctive features in the second and third moves of the international articles. In addition, it was found that the generic organization between EGP and DA in local and international data is quite different,

which led to the conclusion that some Iranian academic writers were not aware of some key generic structures which should be included in the introduction section.

Jirapanakorn, et el (2014) compared moves and steps in English research article introduction (RAIs) found in two corpuses - Thai and international medical journals - by using the move-based analytical tool adopted from Swales's 1990 and 2004 models, Nwogu's 1997 model, and Kanoksilapatham's 2005 and 2007 models. It was found that the two corpuses shared great similarities in terms of demonstrating information backgrounds (move 1), drawing relevant information in order to present the current study (move 2), and presenting the current study in details (move 3). However, although the same numbers of moves and steps were identically found, the differences were obvious in the aspects of move patterns and occurrence frequency. The international journals had more consistent patterns with CARS than those examined in Thailand-based journals.

Choi and Hwang (2014) conducted a corpus-based genre analysis of Korean postgraduate students' MA theses (MTs), PhD dissertations (DDs) and research articles (RAs) written by Korean experts (KRs) and by native English-speaking experts (ERs) when they established a niche in the introduction parts. Following Swales' CARS model to analyze the total of 50 pieces of data, the researchers found that there were significant traits in the textual organization according to native and non-native nature in terms of the first language variation and different academic proficiency levels. The results revealed that very few MTs and DDs follow the rules and conventions of the CARS model, whereas most KRs and ERs maintain outlined patterns of the model. Nonetheless, KRs follow the CARS model most strictly while ERs tend to be more independent in creating structural moves and steps.

2.5.2 Studies on Metadiscourse Features

With the aim of exploring ESP contrastive rhetoric, Valero-Garcés (1996) attempted to shed light on identifying metadiscoursal markers and rhetorical differences in four Spanish-English economics texts written by academics with different cultural backgrounds. The results drawn from the analysis were that there were intercultural differences in the rhetorical preferences of the Spanish-speaking academics and by Anglo-American academics. The Anglo-American academics used more metadiscourse

to guide and engage readers, as well as display their explicit existence, than the Spanish-speaking academics in economics journals. By contrast, the Spanish-speaking academics emphasized propositional content to a greater extent by writing in a more impersonal style and tended to reveal their implicit attitudes in their writing.

Shokouhi and Talati Baghsiahi (2009) studied contrastive rhetoric reports to figure out the metadiscourse functions in ten sociology articles in Persian and English. The findings showed a greater number of metadiscourse markers in the English texts, especially the use of text connectors which were found the most frequently in both languages. The second most frequently used markers in both languages were modality markers, which the native writers of English used twice as much as those used by the Persian writers. Moreover, the analysis revealed that the number of textual metadiscourse markers was significantly higher than the interpersonal markers with the fact that the Persian writers of sociology texts preferred to engage and orient readers implicitly when compared to the English writers who used a much more explicit approach.

Employing Hyland (2005)'s framework, Sultan (2011) explored the use of metadiscourse in English and Arabic linguistics research articles. The objective was to analyze the interactive and interactional metadiscourse employed in both sets of corpus to understand the cultural differences between English and Arabic-speaking scholars. The corpus of the study was comprised of seventy discussion sections of linguistics research articles written during 2002 and 2009 by both native English and Arabic speakers. The researcher also used Chi-square tests to validate the potential differences between both corpora. The findings were that the use of metadiscourse plays an essential role in both English and Arabic RAs. Yet, Arabic scholars significantly use more interactive markers than English scholars to put emphasis on textuality so this may reduce the reader involvement when compared with the writing of English scholars that portrays more impersonal and attitudinal voices through interactional markers.

Prasertchotechai (2013) outlined the interpersonal model of metadiscourse based on Hyland and Tse (2004)'s framework in examining 67 research article introductions randomly chosen from the journal of MANUSYA written by Thai native writers between 1998 and 2011. The results showed that interactive metadiscourse markers are used more than interactional metadiscourse. This implied that Thai writers

tend to help readers understand the target text by expressing their ideas through the use of transitions, frame markers, code glossess and so on instead of caring to construct interactions with them.

Kim and Lim (2013) studied the use of metadiscourse in English and Chinese research article introductions (RAIs) in the field of educational psychology. The corpus for this study was forty RAIs: twenty written in Chinese and the other twenty written in English. The analytical model from Hyland (2004) was used as the framework. The study demonstrated the results of different sociocultural contexts between each corpus. That is, there was a gap between the use of metadiscourse in Chinese and English RAIs. Chinese introductions focused on the frequent use of interactive metadiscourse, more than those written in English which tended to use greater interactional metadiscourse. This indicates that Chinese writers cared about bridging information in the texts to make their arguments explicit to the target readers. English writers, on the other hand, employed a lot more interactional metadiscourse markers such as hedges, attitude markers, or self-mentions to interact themselves with the readers.

The study of Ozdemir and Longo (2014) qualitatively and quantitatively examined metadiscourse features based on cultural variations in English abstracts in MA theses written by Turkish and American postgraduate students, following the taxonomy of Hyland (2005). The corpora consisted of a total of fifty-two English thesis abstracts: 26 theses from American students and 26 from Turkish students. It was clearly found that there were some cultural differences embedded in the use of metadiscourse. The occurrences of endophoric markers, evidentials, code glosses, boosters, attitude markers, and self-mentions were fewer in Turkish students' master thesis abstracts. On the other hand, the marked use of metadiscourse transitions, frame markers and hedges were found more in Turkish students' master thesis abstracts than in those of American students.

Junqueira and Cortes (2014) found book reviews an indispensable tool in informing researchers and scholars about whether they should select a particular textbook. Therefore, based on Hyland's (2000) metadiscourse model, the analysis of book reviews written in Brazilian Portuguese (BP) and English was the focus of this study. The corpora selected were one hundred and eighty book reviews from three major disciplines, namely history, psychology, and applied linguistics, published in

international academic journals from 2001 to 2010. The analysis yielded the results that Spanish book reviews were more likely to be critical than their English counterparts. A much greater number of metadiscourse devices, especially emphatics and personal markers, were found in the English corpus than in the BP one. The use of hedges was found abundantly in both languages, yet attitude markers were the least frequently used in the corpora.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Design

There were two phases for this study of the English research article introductions (RAIs) in the field of English language teaching (ELT) written by Thai academicians (TA) in peer-reviewed national journals vs. those of international academicians (IA) in international journals with high impact factor. Firstly, the rhetorical move structures and metadiscourse markers in terms of their categories and frequencies were identified. Then, the similarities and differences in the use of metadiscourse devices between both sets of data were compared. Factors contributing to the use of such metadiscourse were also discussed.

3.2 Description of the Corpora

The researcher employed both stratified and purposive sampling in order to accurately select appropriate introduction sections from well-established and accredited peer-reviewed English empirical research article journals in the field of ELT. Examples written between 2010 and 2016 made up two sets of corpora written by Thai academicians (TA) and international academicians (IA). The research articles selected as the sampling are in accordance with the Introduction-Method-Results-Discussion (IMRD) conventional sections (Swales, 1990) to ensure consistent RAIs of the same type. More importantly, as a result of the fact that research articles with different research designs tend to have different writing conventions, they can adversely affect the internal validity and then the future findings. Therefore, only RAIs with the similar writing conventions, namely experimental method, quasi experimental method, and surveys, were selected as my corpora. They could productively represent the overall writing styles of this academic genre.

The corpora of this study consisted of two different sets of 30 research article introductions (RAIs), making a total of 60 RAIs. The first half of them was selected from well-established Thai national journals: 13 from *Language Education and Acquisition Research Network (LEARN) Journals*, Language Institute Thammasat University

(LITU), and 7 from *Journal of English Studies,* published annually in June by the Department of English, Faculty of Liberal Arts, Thammasat University. The last set was 10 introductions from *The PASAA Journal*, a scholarly, peer-reviewed language journal of the Chulalongkorn University Language Institute (CULI). All of the selected research articles in this corpus were written by Thai academicians (TA) whose L1 were checked through the biographical data to make sure that the writers are all native Thais.

Table 3.1 Corpus of RAIs published in Thai national journals

Thai national Journals	*Number of RAs*
1. LEARN Journals (Language Institute, Thammasat University)	13
2. Journal of English Studies (Faculty of Liberal Arts, Thammasat University)	7
3. PASAA (Language Institute, Chulalongkorn University)	10

The other set of the corpora was drawn from the two international journals written by academic writers other than native Thais, all of which are refereed professional journals, which foster inquiry into language teaching and learning. The first corpus was 12 introductions from *TESOL Quarterly* published by TESOL International Association (Impact Factor: 1.513); ISI Journal Citation Reports © Ranking: 2015: 23/179 (Linguistics); 44/230 (Education & Educational Research), and the other 18 was drawn from *Language Learning*, a Journal of Research in Language Studies published by Language Learning Research Club, University of Michigan (Impact Factor: 1.869); ISI Journal Citation Reports © Ranking: 2015: 10/179 (Linguistics); 25/230 (Education & Educational Research.

Table 3.2 Corpus of RAIs published in international journals

International Journals	*Number of Ras*
1. TESOL Quarterly (TESOL International Association)	12
2. Language Learning (University of Michigan)	18

When dealing with quantitative analyses, it is advisable to collect larger numbers of data or sample size in order to increase the degree of generalization (Nunan & Bailey,

2009). However, the total number of 60 RAIs in the corpora is comparable to other research studies on research articles (RAs). Hence they could yield generalizable, productive results and discussions (e. g. Brett, 1994; Hirano, 2009; Im-O-Cha, 2004; Jirapanakorn, at el, 2014; Jogthong, 2001; Kanoksilapatham, 2005; Kwan, 2005; Samraj, 2002, 2005; Sheldon, 2011; Stoller, & Robinson, 2013; Williams, 1999; Yang & Allison, 2003).

The key point to make here, regarding why the numbers of the RAIs in Thai national and international journals vary from 7-18 pieces, is that, in analyzing move structures and metadiscoursal markers, controlling the length of words within the comparative texts is of paramount importance. That is, a longer RAI tends to have more rhetorical move structures or metadiscourse markers than a shorter one. Therefore, any comparison between the two sets of data with unequal length or numbers of words could be a confounding variable that has a hidden effect on the research findings, thereby posing a threat to internal reliability and validity.

For this important reason, it was crucial to control the length of the two sets of the corpora, starting from collecting the data from the Thai academician (TA) corpus since its RAIs found were far smaller in numbers. Here, another problem occurred when it wasfound that the length of the introduction section of LEARN Journals and PASAA journals tends to be relatively short when compared to those of the international counterparts. Consequently, in order to maintain the same proportion of the selected RAIs (30 vs. 30) for the analysis while being able to control the length of words between the two sets of the corpora to be more or less the same, the RAIs from the Journal of English Studies, which usually has lengthy introductions, was included as the third research journals in the TA corpus.

Nevertheless, due to the scanty numbers of research articles on the side of the TA corpus, only 48 RAIs were initially chosen based on the basic selection criteria (see scope of the study on page 6). It was then found that the numbers of words in the RAIs varied greatly from 214 to 1,358. In order to appropriately select 30 out of 48 RAIs, Nwogu (1997)'s RAI selection model was used in this study. That is, for rhetorical analysis, the range of words of RAIs should be between 250-600 words and the paragraph

numbers should not exceed 6 paragraphs. The RAIs with more or less number of words from the criteria were as a result excluded from the corpus.

The same criteria were used in selecting 30 RAIs from the international academician (IA) corpus, 61 RAIs of which was initially drawn from the target journals. Finally, with the main purpose to control the length of both sets to be more or less the same, the researcher came up with the exact 60 RAIs in total from both sets of corpora, the RAIs of which range from 300-600 words as shown in Table 3.1 and 3.2.

3.3 Selection of the Corpora

The selection of the introduction section as the target corpora in this study was made according to the reason that the introduction part in research articles (RAs) tends to display an abundant evidence of authorial stance where research writers normally need to outline their writing structures and show their understanding in establishing their research context. They also, at the same time, need to organize the meaningful discourse in a way that they can explicitly persuade and engage with the target readers, apart from maintaining their attitudinal signals throughout the text (Swales, 1981, 1984; Hyland, & Tse, 2004a, Hyland, 1998a, 2005a, 2005b; Gillaerts, & Van de Velde, 2010). Therefore, focusing on the data of the introduction section in the aspects of macro- textual organizational and metadiscoursal analyses could offer insights and illuminate an interesting dimension of research on academic discourse analysis.

In regard to the selection of the English academic journals in this study, it was made in accordance with the following reasons. First and foremost, all journals selected are regarded as the leading academic journals among their kind. That is, the Thai national journals in the TA corpus are affiliated to the first and second oldest universities that are well-known for their excellent disciplines for language and humanities in Thailand. More importantly, they were selected on account of their concentration in the field of ELT and publication in journals indexed in Tier 1 of Thai-Journal Citation Index (TCI). Besides, they are all found to be in the ASEAN Citation Index (ACI). This reflects their high status among other local journals within the region and implies their genuine commitment to promote research on English teaching and learning in Thailand.

For the international journals, they are among the top journals according to their high impact factor (IF) and quality indicators in TESOL and applied linguistics (Egbert, 2007; SCImago, 2014). Moreover, even though the target journals selected, both of which are published in the USA, are not journals among the highest ranks, they are still the best choice for this research due to the fact that their RAs focus enormously in the field of English language teaching and learning, which is perfectly suited for the scope of thisstudy. In addition, both of the Thai national and international journals' orientation in the three research designs (the experimental method, quasi experimental method, and surveys) which is conditioned as one main scope of this study, is strong. These make the journals the most suitably selected TA and IA corpora when compared to other similar topic-related journals. Last but not least, the place of publication of the two sets of RAs (Thailand vs the USA) may add a possibly interesting discussion point when taking this factor into consideration. The two set of the corpora could thus well represent the status quo of the core research construct in academic written discourse of English research journals in the field of English language teaching in Thai and international settings.

3.4 Construction of the Corpora

For the construction of the corpora, the researcher carried out the collection through the following procedures.

1. According to the selection criteria, English empirical RAIs were compiled from the selected journals of different volumes between 2010 to 2016. By downloading the items via the Internet with the use of the Thammasat university proxy server, the RAIs, in separate files according to years of publication, were collected and converted into the form of editable Word formats. Different numbers of RAIs were collected from the journals. There were 21 from LEARN Journals, 10 from Journal of English Studies, 17 from PASAA, 30 from Language Learning, and 31 from TESOL Quarterly.

2. To build the two sets of corpora, selecting the exact number of Thai national RAIs and international RAIs (30 vs. 30) from the initially collected RAIs was the next step. For this, the stratified sampling technique by setting range of words was used. The range was separated into groups of word numbers including 251-300, 301-350, 351-400, 401-450, 451-500, 501-550, and 551-600 respectively. Any RAIs from the two sets of

the RAIs having less or more numbers of words than 250-600 words were excluded from being the corpora candidates. When comparing the two sets of the RAIs, it was then found that the numbers of RAIs in the range of words between 301 and 600 were enough to be selected as the target corpora.

3. In order to minimize the differences in corpora size and balance the length of the selected RAIs, the purposive sampling technique was used as the final stage to select the RAI candidates and form the TA and IA corpora. This additional sample extraction was done by sorting the RAIs within each word ranging group (e.g. 301-350 words) in descending order of the proportion of words. Then, keeping the notion that a member of the corpora based on the approximate numbers of words should not exceed 20 percent when compared between the two sets of corpora (Kanoksilapatham, 2005, 2007, 2011), the researcher purposively selected the RAIs as shown in the table below.

Table 3.3 Total number of words in the RAI corpora

Thai Academicians (N=30)		International Academicians (N=30)	
RAIs Code #	No. of words	RAIs Code #	No. of words
TA1	301	IA1	315
TA2	303	IA2	319
TA3	345	IA3	324
TA4	362	IA4	353
TA5	362	IA5	374
TA6	384	IA6	375
TA7	388	IA7	384
TA8	389	IA8	391
TA9	390	IA9	392
TA10	403	IA10	399
TA11	403	IA11	404
TA12	403	IA12	404
TA13	423	IA13	433
TA14	424	IA14	435
TA15	427	IA15	448

TA16	428	**IA16**	454
TA17	460	**IA17**	457
TA18	461	**IA18**	457
TA19	462	**IA19**	465
TA20	468	**IA20**	478
TA21	472	**IA21**	482
TA22	513	**IA22**	485
TA23	527	**IA23**	507
TA24	531	**IA24**	528
TA25	534	**IA25**	530
TA26	552	**IA26**	575
TA27	564	**IA27**	583
TA28	565	**IA28**	584
TA29	592	**IA29**	585
TA30	596	**IA30**	591
Total	**13,432**	**Total**	**13,511**
Average	**447.73**	**Average**	**450.36**
SD	**82.530**	**SD**	**82.858**

The total corpora contained 26,943 words. These included 13,432 words for the TA corpus and 13,511 words for the IA corpus. The word average of each corpus was very close, and so were the standard deviations (SD) which showed the approximate numbers as well as the fairly stable spread among the two sets of corpora, thereby indicating a fair degree of comparison.

4. After the RAI corpora were finally selected with the criterion and the two samplings, they were next transferred into Microsoft Word format ready to print out for a manual codification. To examine any fixed lexical and syntactic features and variations (Sinclair, 1991) (i.e. conjunctions, pronouns, adjectives, adverbs, etc), each TA and IA corpus was further transformed into .txt format in Microsoft Notepad so that it could be processed in the concordance program, AntConc (Version 3.4.4) (Anthony, 2014) to find out more the exact number of target items.

3.5 Analysis of the Mecro-textual Organization

Since Swales' (1990, 2004) Create-A-Research-Space (CARS) model of move-based analysis was originally developed and has extensively been adopted as the comprehensive framework for several studies in research article introductions (IRAs) from several academic disciplines (e. g. Im-O-Cha, 2004; Samraj, 2008; Hirano, 2009, Sheldon, 2011), the researcher thus found his move model (2004) appropriate for analyzing the data as the initial phase of the present study. Ozturk (2007) claimed that the modified CARS model could effectively account for the unique characteristics of rhetorical organization through the defined moves and steps within the introduction section, which is better than the previous one in 1990. The model indicates the three primary moves with either obligatory or optional steps embedded in empirical RAIs, as summarized with analyzing codes in the following table below.

Table 3.4 Swales' model for analyzing the macro-textual organization in the RAIs

Rhetorical move structures	Code
MOVE 1: Establishing a Territory (citation required) via topic generalizations of increasing specificity	**M1**
MOVE 2: Establishing a Niche (citations possible) via	
- Step 1A: Indicating a gap (or)	**M2S1A**
- Step 1B: Adding to what is known	**M2S1B**
- Step 2 (optional) Presenting positive justification	**M2S2**
MOVE 3: Presenting the Present Work (citations possible) via	
- Step 1 (obligatory) Announcing present research descriptively and/or purposefully	**M3S1**
- Step 2* (optional) Presenting RQs or hypotheses	**M3S2**
- Step 3 (optional) Definitional clarifications	**M3S3**
- Step 4 (optional) Summarizing methods	**M3S4**
- Step 5 (PISF**) Announcing principal outcomes	**M3S5**
- Step 6 (PISF) Stating the value of the present study	**M3S6**
- Step 7 (PISF) Outlining the structure of the paper	**M3S7**

*Steps 2-4 are not only optional but less fixed in their order of occurrence than the others
**PISF: Probable in some fields, but unlikely in others
Source: adapted from Swales (2004, p. 231-232)

To better identify the conceptions of some move-step structures in this current study, in case their naming by Swales above was unclear and confusing, an additional explanation according to interpretation of the data for this study is as follows.

1) For *M2S1B: Adding to what is known*, it is the purposeful step that implies the importance or an intriguing possibility of a particular area of study which should or needs to be further investigated. The acknowledgement of a new direction of such an area is so obvious in the writers' mind that conducting the present study (M3S1) noted within the introduction section is necessary.

2) To promote worthiness of the area of study (M2S1B), writers may add *M2S2: Presenting positive justification* to indicate reasonable causes or usefulness of why such an area of study should be investigated theoretically. This may also include the clarification of positive factors such as having appropriate participants or research contexts that could lead to satisfactory research findings.

3) *M3S6: Stating the value of the present study* tells readers about what the benefits of a specific study, basically including the future applications, will be for the scholarly community in an objective manner.

4) Lastly, in terms of M3S3: Definitional clarification, any added specific key terms, is typically attached with citations referring to seminal concepts or theoretical framework.

Since the purpose of this investigation here was to identify and compare the macro-textual organization in terms of rhetorical move structures found in the English RAIs in between the two sets of corpora, the overall macro-structures in the primary move organization of the RA introductions as well as steps or sub-moves within the primary moves were carried out in detail. Consequently, for analyzing the data to answer the first research question, every sentence within the RAI corpora was manually labeled to show which move and step it belonged to. In the case that there seems to be two moves or more within one sentence, the researcher should label the moves and steps which appear to have the most salient feature for that sentence (Crookes, 1986). Additionally, to consolidate the quantitative analysis of the macro-textual organization between the two corpora, the length of the RAI corpora in terms of the number of words was

controlled to be more or less the same before all sentences in each move structure in the corpora were identified. Together, this initial investigation would then enable the second phase of analyzing the use of metadiscourse features to be systematically feasible.

3.6 Analysis of the Metadiscourse Features

The next phase of this comparative analysis lay at the root of the use of metadiscourse makers within the rhetorical move structures. This study employed the model taxonomy of metadiscourse (Hyland & Tse, 2004a; Hyland 2005a, Jiang & Hyland, 2016) for investigating the distribution and density of both interactive and interactional features of metadiscourse markers in each category. Hyland's taxonomy is the most suitable for the purpose of this phase of analysis since it has continuously been developed and extensively utilized by a number of metadiscoursal studies across disciplines (e. g. Le, 2004; Rahimpour & Faghih, 2009; Kim & Lim, 2013; Alyousef, 2015). Moreover, to construct a finer analytical framework for this study, the researcher added the different sub- types regarding functions and linguistic patterns of both interactive and interactional metadiscourse for Hyland (2004a, 2005a)' s model by including other relevant studies (see 2.4 in chapter 2).

In this regard, to answer the second research question, the first step involved identifying the different categories of metadiscourse markers which correspond to their functional descriptions. To do this, the researcher used the concordance program, AntConc (Version 3. 4. 4), as a starting tool to detect the typical metadiscourse markers such as transitions, code glosses, hedges, boosters, attitudinal markers, self- mentions, metadiscursive nouns. After that, their categories and frequencies were initially identified and recorded in a spreadsheet according to numbers found in each set of macro- textual organization which the researcher had initially analyzed in the first phase.

However, in addition to the computer- driven search, the researcher intended to read the entire number of RAIs and codify the target items manually again throughout the corpora to firmly identify that they did not escape the researcher' s double- checking and were accurately used as metadiscourse. Based on this observation, the primary reasons why these metadiscourse markers should repeatedly be identified within their co- text or real textual environment are that: 1) the similar linguistic forms with similar

meaning of metadiscourse markers could probably be used under different metadiscourse categories, and that 2) the metadiscourse in one category by Hyland may belong to the other set of the corpora if the researcher relys solely on the computer analysis. For example, in the sentence *"Now that **we** have a plausible theory of depiction, **we** should be able to answer the question of…"*. Here, the first-person pronoun '*we*' could not be placed in the category of 'self-mentions' since it involves readers in the propositional information. Instead, the pronoun must be categorized as an engagement marker in terms of 'reader pronouns'.

The careful investigation of the data by scrutinizing word by word rather than selecting a typical list of metadiscourse markers allowed the researcher to include other typical or unusual metadiscourse items. In this way, the investigation would yield more productivity (Gillaerts & Van de Velde 2010). Thus, all occurrences of the target items were carefully analyzed by communicative contexts within and between sentences.

Together, there might be a case that an occurrence of metadiscourse markers interrelates in one way or another. For instance, how can we tell apart the exact location or numbers of count in the sentence *"The results **could possibly** be concluded that…"*? Clearly, the two hedges are connected and have an effect on one another to form the whole meaning. However, the researcher made the decision to count two occurrences. To keep consistency, the counting criterion was used throughout the corpora. Below is the table showing all the main categories and sub-types of metadiscourse and their codes for the analysis of this comparative study.

Table 3.5 Taxonomy for analyzing the use of metadiscourse in the RAIs

Category	Function and examples	
Interactive type	**Help to guide readers through the text**	**Code**
Transitions - Additive - Contrastive - Inferential	**Express relations between main ideas or clauses** *(e.g. and, also, moreover, in addition, furthermore)* *(e.g. but, however, whereas, on the contrary)* *(e.g. because, since, thus, therefore, as a result)*	**TS**

Frame markers	Refer to discourse acts, sequences, or stages	FM
- Announcers	*(e.g. X is stated as follows, the study aims to explore)*	
- Sequencers	*(e.g. first, secondly, then, finally)*	
- Topicalizers	*(e.g. regarding, concerning, turning to)*	
- Discourse-labels	*(e.g. to begin with, in conclusion, all in all, in sum)*	
Endophoric markers - Linear references - Non-linear references	**Refer to information in other parts of the text** *(e.g. as noted above, in the next section)* *(e.g. see Figure, in Section 7, as shown in Excerpt 9)*	EM
Evidentials - Integral citations - Non-integral citations	**Refer to source of information from other texts** *(e.g. according to X,…, Y states…, following Z,…)* *(e.g. (Y, 2015, p. 88), (A & B, 1989; C, 1999)*	ET
Code glosses - Exemplifiers - Reformulators	**Signal the restatement of the ideational information** *(e.g. such as, e.g., namely, for instance, for example)* *(e.g., that is, that means…, in other words)*	CG
Interactional	*Involve readers in the texts and arguments*	*Code*
Hedges - Modal auxiliary verbs - Epistemic lexical verbs - Epistemic adjectives and adverb	**Withhold full commitment to proposition** *(e.g. may, might, could, would)* *(e.g. seem, tend, appear, suggest)* *(e.g. perhaps, likely, possible, probably, rather, relatively, sometimes)*	HG
Boosters - Modal auxiliary verbs - Epistemic adverbs - Epistemic phrases or clauses	**Emphasize force or certainly in proposition** *(e.g. will, must, shall)* *(e.g. of course, indeed, definitely, always, clearly, actually, surely, extremely)* *(e.g. the fact that, I believe that, it is certainly true that)*	BT

Attitude markers - Attitudinal adjectives and adverbs	**Express attitude to proposition** *(e. g. remarkable, necessary, important, unexplored, surprisingly, effectively, unfortunately)*	**AM**
Engagement markers - reader pronouns - personal asides - Appeals to shared knowledge - Directives - Questions	**Explicitly build a relationship with readers** *(e.g. you can see that, this makes us understand…)* *(e.g. His opinion above provoked interest…)* *(e.g. It is commonly known, it is accepted that)* *(e.g. let us consider, please note that, suppose)* *(e.g. What do these two have in common, one might ask?)*	**EG**
Self-mentions - Nouns - First-person pronouns - Possessive adjectives and pronouns	**Explicit reference to author(s)** *(e.g. the researcher, the research team)* *(e.g. I, we, me, us)* *(e.g. my, our, mine, ours)*	**SM**
Metadiscourse Nouns - Entity - Attribute - Relation	**Refer to pragmatic meaning of nouns depending on contextual lexicalization** *(Noun+post-nominal clause)* *(e.g. assumption, belief, evidence, claim, hypothesis)* *(e.g. difficulty, importance, fact, option, extent)* *(e.g. effect, outcome, reason, relationship)*	**MN**

As the number of words and sentences in the corpora as well as between the three primary moves can be inevitably varied, the density calculation through frequency count and content analysis is important in this comparative analysis. Therefore, in comparing the entire number of metadiscourse markers within the macro- textual organization, the density in terms of the number of words and sentences was classified

as: 1) The number of each metadiscourse marker per 1,000 words, and 2) The number of each metadiscourse marker per 10 sentences. This examination approach was done following Crismore et al. (1993) and Kim & Lim, (2013) to ensure the comparability and consistency of the corpora's textual length.

CHAPTER 4
RESULTS AND DISCUSSION

In this chapter, the research findings as well as the discussion based on critical perspectives of previously related theories and former scholarly framework are presented. To provide the overall comparative analysis step by step, the presentation begins with the results and discussion of macro- textual organization in relation to rhetorical move- step structures, and then the thorough identification of a variety of metadiscourse features found in the entire macro-textual organization is presented.

4.1 Results of analyzing Mecro-textual Organization

Through descriptive analysis to answer the research question one: "What is the macro-textual organization in terms of rhetorical move structures of RAIs in the field of English language teaching (ELT) written by TA in national journals vs. IA in international journals with high impact- factor?", the rhetorical move structures in both Thai academician (TA) corpus and International academician (IA) corpus were identified and compared to reveal their salient communicative patterns and functions in the target discourse within the RAIs. The findings based on the analysis of the rhetorical move structures were basically used to further reveal the matadiscourse features embedded in the textual organization. In a nutshell, the researcher conducted the analysis through identifying individual sentences into appropriate moves and steps based on the CARS model (see Chapter 2 and 3).

4.1.1 Distribution of Rhetorical Moves and Steps in the RAIs

To begin with, the distribution of rhetorical moves and steps in the RAIs written by TA and IA is presented in Table 4. 1 and 4. 2 respectively. This could then yield the basic results of rhetorical move and and step patterns of the corpora. From the table below, the structural moves and steps of each RAI as well as numbers of move units (No. of units) according to its call number are shown from text 1- 30 (the higher the call number, the longer the text). According to Swales's (2004) framework, structural moves can be categorized into obligatory (100%), conventional (80%), and optional (50%). In

this analysis, the obligatory moves are *Move 1: Establishing a Territory* (M1) and *Move 3: Announcing present research descriptively and/or purposefully* (M3S1). Together, the conventional moves, which lie under the main *Move 2: Establishing a Niche* (M2), are usually needed through *Move 2 Step 1A: Indicating a gap* (M2S1A) (or) *Move 2 Step 1B: Adding to what is known* (M2S1B). Then, writers may or may not present their optional moves by adding the other steps of *Move 2: presenting positive justification* (M2S2) or, of *Move 3*, such as *presenting RQs or hypotheses* (M3S2), *summarizing methods* (M3S4), or *Outlining the structure of the paper* (M3S7). Before elaborating other complicated aspects of move-based analysis in detail, the explicit move-step distrubution of the RAIs written by TA and IA is presented here to offer an overall picture of the initial analysis.

Table 4.1 Distribution of moves and steps in the RAIs written by TA

RAIs Code#	Move-step distribution of the RAIs written by TA											No. of unit
TA1	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2* Y	*M3S3*	*M3S4* Y	*M3S5*	*M3S6*	*M3S7*	5
TA2	*M1* Y	*M2S1A*	*M2S1B*	*M2S2*	*M3S1*	*M3S2* Y	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	2
TA3	*M1* Y	*M2S1A*	*M2S1B* Y	*M2S2* Y	*M3S1*	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	3
TA4	*M1* Y	*M2S1A*	*M2S1B*	*M2S2*	*M3S1*	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6* Y	*M3S7* Y	3
TA5	*M1* Y	*M2S1A*	*M2S1B* Y	*M2S2*	*M3S1*	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	2
TA6	*M1* Y	*M2S1A*	*M2S1B*	*M2S2*	*M3S1*	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	1
TA7	*M1* Y	*M2S1A* Y	*M2S1B* Y	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6* Y	*M3S7*	5
TA8	*M1* Y	*M2S1A*	*M2S1B* Y	*M2S2* Y	*M3S1*	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	3
TA9	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	3
TA10	*M1* Y	*M2S1A*	*M2S1B*	*M2S2* Y	*M3S1* Y	*M3S2* Y	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	4
TA11	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2* Y	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	4

	M1	M2S1A	M2S1B	M2S2	M3S1	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	
TA12	M1 Y	M2S1A Y	M2S1B Y	M2S2 Y	M3S1 Y	M3S2 Y	M3S3	M3S4	M3S5	M3S6	M3S7	5
TA13	M1 Y	M2S1A	M2S1B Y	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	3
TA14	M1 Y	M2S1A Y	M2S1B Y	M2S2	M3S1 Y	M3S2	M3S3 Y	M3S4	M3S5	M3S6 Y	M3S7	6
TA15	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	3
TA16	M1 Y	M2S1A	M2S1B	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	2
TA17	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1 Y	M3S2 Y	M3S3	M3S4	M3S5	M3S6 Y	M3S7	5
TA18	M1 Y	M2S1A	M2S1B Y	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6 Y	M3S7	4
TA19	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	3
TA20	M1 Y	M2S1A	M2S1B	M2S2	M3S1 Y	M3S2	M3S3 Y	M3S4	M3S5	M3S6	M3S7	3
TA21	M1 Y	M2S1A	M2S1B	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6 Y	M3S7 Y	4
TA22	M1 Y	M2S1A Y	M2S1B Y	M2S2	M3S1 Y	M3S2 Y	M3S3	M3S4	M3S5	M3S6	M3S7	5
TA23	M1 Y	M2S1A	M2S1B	M2S2	M3S1	M3S2	M3S3 Y	M3S4	M3S5	M3S6	M3S7	2
TA24	M1 Y	M2S1A	M2S1B Y	M2S2 Y	M3S1	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	3
TA25	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	3
TA26	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1 Y	M3S2	M3S3	M3S4	M3S5	M3S6 Y	M3S7	4
TA27	M1 Y	M2S1A	M2S1B	M2S2	M3S1 Y	M3S2 Y	M3S3	M3S4	M3S5	M3S6	M3S7	3
TA28	M1 Y	M2S1A Y	M2S1B	M2S2 Y	M3S1 Y	M3S2 Y	M3S3	M3S4	M3S5	M3S6	M3S7	5
TA29	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1	M3S2	M3S3 Y	M3S4	M3S5	M3S6	M3S7	3
TA30	M1 Y	M2S1A Y	M2S1B	M2S2	M3S1 Y	M3S2	M3S3 Y	M3S4	M3S5	M3S6	M3S7	4
Total	30	15	9	6	21	9	5	1	0	7	2	105

From the notion that structural moves can be categorized into obligatory, conventional, and optional, the RAIs written by TA had some interesting aspects to demonstrate. Overall, the TA corpus had different numbers of move units (No. of units), varying from only 1 unit to as many as 30 units based on the entire number of the RAIs, making the the corpus consist of 105 move units in total. From the table, we can see that, on the one hand, the main moves and steps which received great emphasis were *Move 1: Establishing a Territory* (M1), *Move 2: Indicating a gap* (M2S1A), and *Move 3: Announcing present research descriptively and/or purposefully* (M3S1) whose numbers of move units were 30, 15, and 21 respectively.

On the other hand, it was noticeably found that the other move-step items were quite varied in their numbers (0-9 occurrences) with very few uses (1-5 occurrences) of the optional *Move 3: Definitional clarifications* (M3S3), *Summarizing methods* (M3S4), and *Outlining the structure of the paper* (M3S7). Also, there was an omission of *Move 3: Announcing principal outcomes* (M3S5) in the TA corpus. Surprisingly, among the majority following the obligatory Move 1 and 3, there were four RAIs (TA3, TA5, TA8, TA24) containing merely Move 1 and 2, together with one RAI (TA6) which contained only Move 1. This shows the result that there were only around two thirds, or specifically, 21 out of 30 RAIs in the TA corpus that contained the obligatory M1 and M3S1.

Following, the basic results of analysis of moves and steps in the RAIs written by the IA are shown. There were some similarities and differences according to the distribution of the TA counterparts.

Table 4.2 Distribution of moves and steps in the RAIs written by IA

RAIs Code#	Move-step distribution of the RAIs written by IA											No. of unit
IA1	*M1* Y	*M2S1A* Y	*M2S1B* Y	*M2S2*	*M3S1* Y	*M3S2* Y	*M3S3*	*M3S4* Y	*M3S5*	*M3S6*	*M3S7*	6
IA2	*M1* Y	*M2S1A* Y	*M2S1B* Y	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4* Y	*M3S5*	*M3S6*	*M3S7*	5
IA3	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	3
IA4	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1*	*M3S2*	*M3S3*	*M3S4* Y	*M3S5* Y	*M3S6*	*M3S7*	4

	M1	M2S1A	M2S1B	M2S2	M3S1	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	
IA5	Y	Y			Y							3
IA6	Y				Y							2
IA7	Y										Y	2
IA8	Y	Y		Y	Y						Y	5
IA9	Y	Y			Y							3
IA10	Y	Y			Y							3
IA11	Y	Y			Y					Y		4
IA12	Y	Y			Y		Y					4
IA13	Y	Y			Y							3
IA14	Y	Y			Y						Y	4
IA15	Y	Y			Y						Y	4
IA16	Y		Y		Y	Y						4
IA17	Y				Y	Y						3
IA18	Y				Y		Y	Y				4
IA19	Y	Y		Y	Y		Y			Y		6
IA20	Y	Y			Y		Y			Y		5
IA21	Y	Y			Y							3
IA22	Y	Y	Y		Y						Y	5
IA23	Y				Y							2
IA24	Y				Y							2
IA25	Y		Y		Y	Y		Y	Y			6

	M1	M2S1A	M2S1B	M2S2	M3S1	M3S2	M3S3	M3S4	M3S5	M3S6	M3S7	
IA26	*M1* Y	*M2S1A*	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	2
IA27	*M1* Y	*M2S1A*	*M2S1B*	*M2S2* Y	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6* Y	*M3S7*	4
IA28	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2* Y	*M3S3* Y	*M3S4*	*M3S5*	*M3S6*	*M3S7*	5
IA29	*M1* Y	*M2S1A*	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5* Y	*M3S6* Y	*M3S7*	4
IA30	*M1* Y	*M2S1A* Y	*M2S1B*	*M2S2*	*M3S1* Y	*M3S2*	*M3S3*	*M3S4*	*M3S5*	*M3S6*	*M3S7*	3
Total	30	19	5	3	28	5	5	5	3	5	5	113

For the IA corpus, likewise, the same emphasis on using the obligatory *Move 1: Establishing a Territory* (M1), the conventional *Move 2: Indicating a gap* (M2S1A), and the obligatory *Move 3: Announcing present research descriptively and/or purposefully* (M3S1) was clearly made. The numbers of their move units were 30, 19, and 28 respectively. For other move-step items, they seemed to have a similar number of occurrences in move units, mostly 5 occurrences. The ones that had the lowest occurrences were the optional *Move 2: Presenting positive justification* (M2S2) and the optional *Move 3: Announcing principal outcomes* (M3S5), both of which had 3 occurrences. All in all, the whole IA corpus consisted of 113 move units in total. The overwhelming majority (28 RAIs) contained at least the obligatory M1 and M3S1, thereby indicating the significance of these very moves in the IA corpus.

Generally, it could be said here that, from the 30 RAIs in each corpus, both Thai academicians (TA) and international academicians (IA) fairly employed quite the approximate numbers of move units (105 vs. 113) in their academic work. Moreover, all three primary moves and other steps were found in both corpora following the norms of the CARS model. That is, most of the Thai and international academicians realized the importance of establishing their research contexts through giving a territory and a niche in the primary Move 1 (M1) and Move 2 (M2S1A or M2S1B), as well as strengthening their research objectives through the obligatory Move 3 (M3S1). The differences were that the occurrences of the optional steps in the RAIs written by the TA tended to be inconsistent in numbers (0-9 occurrences), while those in the RAIs written by the IA, despite having smaller numbers (3-5 occurances), appeared to be relatively consistent.

To further illustrate the corpora in comparison, the distribution of the primary moves, namely obligatory and conventional moves, as well as the optional steps occurring in both TA vs. IA corpora are presented separately in Table 4.3, 4.4, and 4.5 below.

Table 4.3 Frequencies of the obligatory move occurrence in the corpora

Rhetorical move structures	TA corpus (N=30)	IA corpus (N=30)
M1: Establishing a Territory (citation required) via topic generalizations of increasing specificity	**30 (100%)**	**30 (100%)**
M3: Presenting the Present Work (citations possible) via **M3S1**: Announcing present research descriptively and/or purposefully	**21 (70%)**	**28 (93.33%)**

From the Table, the comparison between the two sets of corpora revealed the percentages of the obligatory moves found in the 60 RAIs. That is, every RAI written by both TA and IA contained the obligatory *Move 1: Establishing a Territory* (M1). This reflected 100% of this main move used in both corpora according to the norms of the CARS model. This indicated the most important role of this move in the RAIs written by both Thai and international academicians to establish their research context via topic generalizations of increasing specificity prior to, whether or not, guiding readers to the next moves and steps.

However, although *Move 3: Presenting the present work* (M3) *via M3S1: Announcing present research descriptively and/or purposefully* is classified by the model as an obligatory move, there were only 21 pieces of RAIs (70%) written by the TA which contained this main move. For the IA corpus, the number of this very move, in contrast, was up to 28 RAIs (93.33%). Despite contradicting tthe CAR model, the result that there were different percentages of M3S1 in the two corpora actually made this move more conventional rather than obligatory for Thai and international academicians.

Considering these obligatory moves in practice, the salient difference was that the RAIs written by the IA had consistently more numbers of the obligatory moves (M1+M3S1) than those found in the TA corpus (28 vs 21 RAIs). This implies a greater preference and consistency of the IA in placing the obligatory move units according to the CARS model.

Table 4.4 Frequencies of the conventional move occurrence in the corpora

Rhetorical move-step structures	TA corpus (N=30)	IA corpus (N=30)
M2: Establishing a Niche (citations possible) via	**21 (70%)**	**21 (70%)**
M2S1A: Indicating a gap (or)	15 (50%)	19 (63.33%)
M2S1B: Adding to what is known	9 (30%)	5 (16.66%)

For the use of conventional *Move 2: Establishing a Niche* (M2), it was found that there were around two thirds (70%) of the RAIs from both corpora, which contained both/either *Indicating a gap* (M2S1A) and/or *Adding to what is known* (M2S1B). If specifying these alternative steps seperately, both the TA and IA clearly preferred to use M2S1A rather than use M2S1B. However, the IA tended to use *M2S1A: Indicating a gap* slightly more than their TA counterparts, which was almost two thirds (63.33%) compared with one half (50%) for the latter. Yet, the IA were obviously less likely than the TA to establish a niche by using *M2S1B: Adding to what is known* as this step was used by merely 16.66% of the IA, while it was used up to 30% by the its TA counterparts.

Apart from the frequencies of occurrences of the obligatory and conventional moves in Table 4.3 and 4.4, the distribution of the optional moves occurring in the corpora was also interesting to mention although they were rather minimally used in numbers within the corpora. Their frequencies of occurrences in the corpora are shown in Table 4.5 below.

Table 4.5 Frequencies of the optional occurrence in the corpora

Rhetorical move-step structures	TA corpus (N=30)	IA corpus (N=30)
M2: Establishing a Niche (citations possible) via		
M2S2: Presenting positive justification	6 (20%)	3 (10%)
M3: Presenting the Present Work (citations possible) via		
M3S2: Presenting RQs or hypotheses	9 (30%)	5 (16.66%)
M3S3: Definitional clarifications	5 (16.66%)	5 (16.66%)
M3S4: Summarizing methods	1 (3.33%)	5 (16.66%)
M3S5: Announcing principal outcomes	0	3 (10%)
M3S6: Stating the value of the present study	7 (23.33%)	5 (16.66%)
M3S7: Outlining the structure of the paper	2 (6.66%)	5 (16.66%)

From the table presented, there were other salient differences if considering each particular optional step residing in the main Move 2 and 3. First of all, *Move 2: Presenting positive justification* (M2S2) seemed to play its additional role in the TA corpus more often than it did in the IA corpus (20% vs. 10%).

Besides, for other optional steps within Move 3, the TA seemed to somewhat prefer employing *M3S2: Presenting RQs or hypotheses* (30%) and *M3S6: Stating the value of the present study* (23.33%), while paying much less attention in placing the optional steps M3S4 and M3S7, since only very few of them (3.33%-6.66%) were found. Noticeably, *M3S5: Announcing principal outcomes (M3S5)* did not exist in the TA corpus. The use of *M3S3: Definitional clarifications* in the TA corpus, however, received its attention to some extent as it was similarly found in the same percentage as the IA corpus (16.66%). By contrast, despite small in numbers, it was interestingly found that the IA were likely to use the optional steps: M3S2, M3S3, M3S4, M3S5, M3S6, and M3S7 equally (mostly 5%).

In a nutshell, the majority of Thai and international academicians obviously structured their scholarly arguments in the RAIs through the use of the obligatory M1 and M3S1, as well as the conventional M2: M2S1A or M2S1B, since most of their RAIs contained these primary moves. Nevertheless, their different use of other optional steps received far less attention and varied in numbers and consistency.

4.1.2 Samples of Rhetorical Moves and Steps in the RAIs

To illustrate all of the previous findings of move-step distribution in a clearer manner, the characteristics of each rhetorical move and step in the RAIs are explained by selecting examples drawn from the corpora with the linguistic signals in bold. These move-step examples given are marked by the RAI code#. That is, TA9 refers to the ninth research article introduction (RAI) from the Thai academician (TA) corpus, while IA18 was taken as an example from the international academician (IA) corpus.

MOVE 1: Establishing a Territory (citation required) via topic generalizations of increasing specificity, for example:

- *Interaction-based tasks such as pair or group work **have increasingly been used** in classroom and assessment contexts **in response to the move toward** a more*

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communicative approach in language teaching (Iwashita, 1997; Taylor, 2001; Taylor & Wigglesworth, 2009). (TA13)

- ***The role of*** *incidental Focus on Form (FonF)* ***has recently received considerable attention*** *in the field of second language acquisition (SLA) (Doughty & Williams, 1998a, 1998b; Ellis, 2001; Ellis, Basturkmen, & Loewen, 2001a, 2001b; Loewen, 2005; Long, 1991; Long & Robinson, 1998; Nassaji, 1999, 2010; Nassaji & Simard, 2010; Williams, 2001, 2005).* (IA20)

MOVE 2: Establishing a Niche (citations possible) via

Step M2S1A: **Indicating a gap**, for example:

- *Although some researchers (Mahmoud, 2005; Youmei and Yun; 2005; Wang and Good, 2007; Mongkolchai; 2008) conducted research on the verb + noun pattern collocations,* ***there is no comparison between*** *EFL students of regular program and English program who study in the same major.* (TA11)

- *Despite the fact that the amount of research on autonomous learning is on the increase Benson, 2007),* ***little is known about*** *the role of self- regulatory strategies and autonomous learning behavior in language learning, and* ***only a few studies have examined*** *how motivational orientations and future self- guides influence these two constructs.* (IA14)

Step M2S1B: **Adding to what is known**, for example:

- *Not only their vocabulary competency that should be investigated, problems encountered when they learn vocabulary* ***should be also elaborately studied****.* (TA5)

- *Thus, a leadership focus is* ***particularly important in filling some of the gaps*** *in the TESOL field.* (IA22)

Step M2S2: Presenting positive justification, for example:

- *Similarities and differences in meanings and usages should be revealed and summarized for learners* ***in order to facilitate and contribute to a clear understanding of*** *the semantic properties relating to the words within this group.* (TA24)

- *Given the rapidly expanding population of young children who grow up in homes where a language other than, or in addition to, English is spoken (Hernandez, Takanishi, & Marotz, 2009; Russakoff, 2011),* ***a more nuanced understanding*** *of*

> *children's cognate knowledge **will help identify ways** that bilingual children leverage word knowledge across languages. (IA19)*

MOVE 3: Presenting the Present Work (citations possible) via

Step M3S1: Announcing present research descriptively and/or purposefully, for example:

- *Due to these controversial findings, **this study aims at** investigating the effects of morphological instruction on reading abilities of Thai adult learners at university level. (TA21)*

- *Therefore, **the main objective of this study was to** clarify the relationship between comprehensibility and accentedness, investigating the effect of speakers' L1 on listener perception of L2 comprehensibility and accentedness. (IA10)*

Step M3S2: Presenting RQs or hypotheses, for example:

- ***The hypothesis is that** typically deviated pronunciation of the two English sounds by Thais will lead to routine misunderstandings of utterances in English. (TA28)*

- ***The research question is**: When rating writing for lexis using an analytic rating scale, are raters more sensitive to lexical range, lexical accuracy or the frequency of the lexical items used? (IA25)*

Step M3S3: **Definitional clarifications**, for example:

- *The term "communication strategies" usually **refers to** the devices used by second or foreign language learners to cope with their oral communication problems in order to achieve their communicative goals (Faerch & Kasper, 1983). (TA14)*

- *Cognitive fluency **is defined as** " the efficiency of operation of the underlying processes responsible for the production of utterances'' (Segalowitz, 2010, p. 165). (IA18)*

Step M3S4: Summarizing methods, for example:

- ***The data collection methods involved** were classroom observations, interviews, and a stimulated recall technique. (TA1)*

- *The present study addresses this issue **by adopting** an Accessibility Theory (Ariel, 1990, 2001) **framework** and **a coding system** based on Toole (1996). (IA4)*

Step M3S5: **Announcing principal outcomes**, for example:

- *These findings include* evidence of nontargetlike L2 distribution of references by accessibility context, but *it appears that* this alone cannot account for infrequent use of pronouns and zero anaphora (hereafter, simply zero). Rather, *it appears that the findings* most strongly *support the hypothesis that* overexplicitness may be motivated by a concern for communicative clarity. (IA4).

- None existed in the TA corpus.

Step M3S6: **Stating the value of the present study**, for example:

- *The study of* the opinions towards CS *will also benefit* other English teachers in terms of what characteristics of CS should be applied to use in class, which *will shed some light on* how the administrators or policymakers of the institute can encourage and improve CS in the classrooms for constructive purposes. (TA7)

- *By investigating* this underexplored dimension of classroom context, *the study offered new insight into* how incidental FonF works in L2 classrooms and what role the context of interaction may play in its occurrence and effectiveness. (IA20)

Step M3S7: Outlining the structure of the paper, for example:

- *The next section discusses* vocabulary instruction, morphological instruction, and knowledge of inflectional and derivational morphemes and the relevant literature. (TA21)

- *In this article, we first provide* a theoretical background to our study by explaining the most important concepts of our research; *this is followed by* a description of the data collection procedures. *Next, we present* our hypothetical model of motivational factors, self-regulatory strategies, and autonomous learning behavior and *show* how the data provide support for our conceptualization of the interaction of these constructs. *Finally, we discuss* the theoretical and pedagogical implications of the findings of our study. (IA14)

4.1.3 Rhetorical Move Patterns of the RAIs

To reveal the primary, consequent metadiscourse feature findings of this research study, the results of the main move structure investigation count of the RAIs written by Thai vs. international academicians are thoroughly described in Table 4.6 and

4.7 respectively. From the tables, the structural move patterns of each RAI according to its coded number are shown in order, together with the detailed numbers of words and sentences in each move pattern. The codes that refer to moves and their order found in each RAI include **M1**: *Establishing a Territory*, **M2**: *Establishing a Niche*; and **M3**: *Presenting the Present Work.* Please note that the code M1-M2-M3 here included all the obligatory, conventional, and optional moves embeded within their structural patterns. That is to say, if the detailed structural move pattern of an RAI is M1-M2S1A-M2S2-M1-M3S1-M3S7, the main structural move would thus be M1-M2-M1-M3, for instance.

Table 4.6 Main structural move patterns of RAIs written by the TA

RAIs		Length of moves as numbers of words and sentences			
Code#	Move Patterns	Move 1	Move 2	Move 3	Total
TA1	M1-M2-M3	189/7	38/2	74/4	301/13
TA2	M1-M3	257/9	-	46/3	303/12
TA3	M1-M2	227/11	118/3	-	345/14
TA4	M1-M3	313/13	-	49/2	362/15
TA5	M1-M2	308/16	54/2	-	362/18
TA6	M1	384/11	-	-	384/11
TA7	M1-M2-M3-M2-M3	258/10	60/3	70/2	388/15
TA8	M1-M2	324/13	65/3	-	389/16
TA9	M1-M2-M1-M3	243/11	35/1	112/5	390/17
TA10	M1-M3-M2-M3	280/11	40/1	83/2	403/14
TA11	M1-M2-M3	136/3	43/1	224/6	403/10
TA12	M1-M2-M3	248/10	60/3	95/4	403/17
TA13	M1-M2-M3	367/11	35/1	21/1	423/13
TA14	M1-M3-M1-M2-M3-M2	132/7	203/5	89/3	424/15
TA15	M1-M3-M1-M2-M3	310/15	55/2	62/3	427/20
TA16	M1-M3	388/19	-	40/2	428/21
TA17	M1-M3-M2-M1-M3	157/7	126/5	177/7	460/19
TA18	M1-M2-M3-M1-M3	207/9	92/3	162/4	461/16
TA19	M1-M2-M3	253/9	128/4	81/2	462/15
TA20	M1-M3-M1-M3-M1-M3	289/11	-	179/7	468/18
TA21	M1-M3	391/17	-	81/3	472/20
TA22	M1-M2-M1-M3	313/10	135/4	65/2	513/16
TA23	M1-M3	461/18	-	66/2	527/20
TA24	M1-M2	477/17	54/2	-	531/19

TA25	M1-M2-M3	384/15	65/1	85/4	534/20
TA26	M1-M2-M1-M2-M3	353/13	130/4	69/2	552/19
TA27	M3-M1-M3	329/13	-	235/11	564/24
TA28	M1-M2-M1-M3	421/13	49/2	95/3	565/18
TA29	M1-M3-M1-M2	220/6	129/4	243/10	592/20
TA30	M1-M3-M1-M2-M3	434/14	41/2	121/4	596/20
Total		**9,053/349**	**1,755/58**	**2,624/98**	**13,432/505**
Word and sentence average		**301.77/11.63**	**58.50/1.93**	**87.47/3.27**	**447.73/16.83**

The total numbers of words and sentences in the TA corpus were 13,432 and 505 respectively. In terms of the number of words, the division of *Move 1: Establishing a territory* occupied the most, that is, 9,053 words (67.40%). It was followed by *Move 3: Presenting the present work*, which was 2,624 words (19. 54%). Lastly, *Move 2: Establishing a niche* contained fewest words as 1,755 words (13.06%) were found in the corpus. The proportion of sentences in each move was calculated according to the number of words. Of the whole TA corpus, Move 1 had 349 sentences (69.10%). Move 2 had 58 sentences (11. 49%) and Move 3 had 87 sentences (19. 41%) respectively. Therefore, the rough proportion in ten of the discovered moves here was around 7: 1: 2 for M1-M2-M3.

As shown in Table 4.6, the average numbers of words and sentences in the TA corpus is also worth mentioning here. The average number of words for the entire corpus of 30 RAIs was 447.73 each, and the average number of sentences was 16.83 . That is to say, if specifically calculated, Move 1, 2, and 3 averaged 301.77, 58.50, and 87.47 words respectively. For the average of sentences, they are 11. 63, 1. 93, and 3. 27 sentences in the same order.

Together, we can see that the omission of the main *Move 2: Establishing a niche* as well as *Move 3: Presenting the present work* in the TA corpus was quite common. There were 8 RAIs or up to 26.66%, in which Move 2, either a conventional or optional step, was missing, while there were 5 RAIs or 16. 66% of the corpus having no sign of any obligatory moves or optional steps within Move 3.

Table 4.7 Main structural move patterns of RAIs written by the IA

RAIs Code#	Move Patterns	Length of moves as numbers of words and sentences			
		Move 1	Move 2	Move 3	Total
IA1	M1-M3-M2-M3	92/3	89/2	134/4	315/9
IA2	M1-M2-M3	124/5	63/2	132/4	319/11
IA3	M1-M2-M3	253/6	47/2	24/1	324/9
IA4	M1-M2-M3	213/7	47/1	93/4	353/12
IA5	M1-M2-M3-M2	171/3	78/2	125/3	374/8
IA6	M1-M3	334/9	-	41/1	375/10
IA7	M1-M3	286/5	-	98/2	384/7
IA8	M1-M2-M3	177/4	97/3	117/3	391/10
IA9	M1-M2-M3	298/7	66/1	28/1	392/9
IA10	M1-M2-M3	151/5	218/5	30/1	399/11
IA11	M1-M2-M3	140/3	86/1	178/6	404/10
IA12	M3-M1-M3-M1-M2-M3	120/6	90/2	194/2	404/10
IA13	M1-M2-M3	235/5	13/1	185/5	433/11
IA14	M1-M2-M3	178/5	50/1	207/6	435/12
IA15	M1-M3-M1-M2-M3	175/6	128/3	145/5	448/14
IA16	M1-M2-M3	256/6	36/1	162/4	454/11
IA17	M1-M3-M1-M3	345/11	-	112/6	457/17
IA18	M1-M3-M1-M3	183/4	-	274/10	457/14
IA19	M1-M2-M1-M2-M3	201/6	142/3	122/5	465/14
IA20	M1-M3-M2-M1-M3-M1-M3	263/7	82/2	133/5	478/14
IA21	M1-M2-M3	291/10	48/2	143/4	482/16
IA22	M1-M2-M3	143/4	221/8	121/5	485/17
IA23	M1-M3-M1-M3-M1	451/14	-	56/2	507/16
IA24	M1-M3	455/13	-	73/2	528/15
IA25	M3-M1-M3-M2-M1-M3	199/8	38/1	293/13	530/22
IA26	M1-M3	437/15	-	138/4	575/19
IA27	M1-M3-M2-M1-M2-M1	440/14	89/4	54/2	583/20
IA28	M1-M3-M1-M3-M1-M2-M3-M1-M3	401/18	36/1	147/5	584/24
IA29	M1-M3	251/4	-	334/10	585/14
IA30	M1-M2-M3	432/13	84/2	75/3	591/18
Total		**7,695/226**	**1,848/50**	**3,968/128**	**13,511/404**
Word and sentence average		**256.50/7.53**	**61.60/1.66**	**132.27/4.27**	**450.36/13.46**

As regards the IA corpus, the average length of words and sentences used in all 30 RAIs were 13,511 and 404 respectively. Similar to the TA corpus, *Move 1: Establishing a territory* had the highest proportion of 7,695 words (56.95%) of the corpus. Then, the second highest number of words belonged to *Move 3: Presenting the present work*, which had 3,968 words (29.37%). It was lastly followed by *Move 2: Establishing a niche*, which had 1,848 words (13.68%) in the corpus. Also, the numbers of sentences in the IA corpus could be devided into 229, 49, and 126 in line with Move 1, 2, and 3, making the percentages of 56.68, 12.13, and 32.19 respectively. Compared to the TA corpus, the rough proportion in ten of the moves found in the IA corpus was about 6:1:3 for M1-M2-M3.

For the average of words and sentences of the IA corpus, it was found in the whole corpus of 30 RAIs to be 450.36 words each. The average number of sentences in each RAI was 13.46. However, when compared separately in each main move, Move 1 had the average of 256.50 words and 7.53 sentences for one RAI. Move 2 had 61.60 words and 1.66 sentences, and Move 3 had 132.27 words and 4.27 sentences.

In regard to the existence of the three moves in the IA corpus, it was found that there must have been at least Move 1 and Move 3 no matter whether it was in obligatory moves or optional steps. However, Move 2 could be missing from the corpus since there were 8 RAIs that did not contain this move. This missing number of almost one third of the RAIs, or nearly up to 30%, once again indicated the possible omission of the move in both corpora.

To further investigate the RAIs from both TA and IA corpora, their total numbers of words and sentences could be outlined according to the devided moves as follows.

Table 4.8 Percentages of the words and sentences in each main move

The Corpora	Move 1 W/S (%)	Move 2 W/S (%)	Move 3 W/S (%)
TA	67.40/69.11	13.07/11.49	19.53/19.40
IA	56.95/55.94	13.68/12.38	29.37/31.68

Note: W/S= Words/Sentences

From Table 4.8, the majority of words and sentences from both TA and IA corpus are in Move 1. Also, the TA corpus has a higher number of words and sentences than in the IA corpus. In Move 2, the proportion of words and sentences of both corpora is more or less the same. The clear difference between the two corpora is in Move 3, where the numbers of words and sentences in the IA corpus is almost double those of the TA corpus.

According to the results of the main structural move patterns of each RAI in the two sets of the TA vs. IA corpora above, their macro-textual move patterns could also be divided into the linear and cyclical moves as follows.

Table 4.9 Frequencies of the main rhetorical move patterns of the corpora

Pattern	Rhetorical move sequence	TA corpus (N=30)	IA corpus (N=30)
No.	Linear move patterns	No. of RAIs (%)	No. of RAIs (%)
1.	**M1-M2-M3**	6 (20%)	13 (43.33%)
2.	M1-M3	5 (16.66%)	5 (16.66%)
3.	M1-M2	4 (13.33%)	-
4.	M1	1 (3.33%)	
No.	Cyclical move patterns	No. of RAIs	Percentage (%)
5.	**M1-M2-M1-M3**	3 (10%)	-
6.	M1-M3-M1-M2-M3	1 (3.33%)	1 (3.33%)
7.	**M1-M2-M1-M2-M3**	1 (3.33%)	1 (3.33%)
8.	M1-M3-M2-M3	1 (3.33%)	1 (3.33%)
9.	M1-M3-M1-M3		2 (6.66%)
10.	M1-M2-M3-M1-M3	1 (3.33%)	-
11.	M1-M2-M3-M2-M3	1 (3.33%)	-
12.	M1-M3-M1-M2	1 (3.33%)	-
13.	M1-M3-M1-M2-M3	1 (3.33%)	-
14.	M1-M3-M1-M2-M3-M2	1 (3.33%)	-
15.	M1-M3-M1-M3-M1-M3	1 (3.33%)	-
16.	M1-M3-M2-M1-M3	1 (3.33%)	-
17.	M3-M1-M3	1 (3.33%)	-
18.	M1-M2-M3-M2	-	1 (3.33%)
19.	M1-M3-M1-M3-M1	-	1 (3.33%)
20.	M1-M3-M1-M3-M1-M2-M3-M1-M3	-	1 (3.33%)
21.	M1-M3-M2-M1-M2-M1	-	1 (3.33%)
22.	M1-M3-M2-M1-M3-M1-M3	-	1 (3.33%)
23.	M3-M1-M3-M1-M2-M3	-	1 (3.33%)

24.	M3-M1-M3-M2-M1-M3	-	1 (3.33%)

The findings in respect to these rhetorical move patterns indicated that the overwhelming majority of the RAIs in the corpora began with *Move 1: Establishing a territory* (M1). Only three RAIs (5% of the corpora), one from the TA's and two from the IAs, were otherwise started with the presentation of *Move 3: Presenting the Present Work* (M3). Divided into the linear and cyclical move patterns, the rhetorical moves from both TA and IA corpora could altogether be formed into 24 patterns. To illustrate, in the TA corpus, 16 move patterns were identified, while there were 13 patterns of the moves found in the IA counterparts. Moreover, it was found that 3 out of 21 move patterns, which were shown in bold, were created in accordance with the CARS model. That is, they were comprised mainly of the three main moves (M1/M2/M3) beginning with M1 and ending with M3, with intervening moves either 1 or 2 (i.g. M1-M2-M3, M1-M2-M1-M2-M3). In this respect, there were 10 RAIs in the TA's and 14 RAIs' in the IA's having these move features. Therefore, one third of the TA corpus and almost half of the IA corpus followed the Swales CARS model. This, to some textent, indicated quite an influencial role of the model in the RAIs' move patterns in both corpora.

Among several move patterns, the majority of RAIs were gathered in linear patterns. 16 RAIs written by the TA belonged to this category, while there were 18 RAIs written by the IA found. Here, the most frequently used linear pattern of both corpora was M1-M2-M3, (19 out of 60 RAIs) which is basically in line with the ideal move patterns of the CARS model. This result suggested that this move pattern is quite popularly employed in ELT research articles, where the academicians first establish the territory in M1, then establish a niche in M2, and finally announce their present work in M3. However, in the TA corpus, this pattern occurred only 20%, while noticeably double this percentage of the same pattern (43.33%) occurred in the IA corpus. This clearly suggested the preference of the move pattern M1-M2-M3 in the IA corpus over the TA counterparts.

Interestingly, the remaining numbers of the RAIs in both corpora in linear patterns (No. 2-4) were not in agreement with the CARS model as they did not present either M2 or M3. The first marked move pattern here was M1-M3 with none of M2

presented. It was coincidently used as much as 16.66%, or 5 RAIs in each corpus. The other one was M1-M2, of which M3 was omitted. To a centain degree, it was found in 13.33% (4 RAIs) in the TA corpus, but it did not at all appear in the IA corpus. Unexpectedly, there was one RAI in the TA corpus that did not have either M2 or M3. There was only M1 representing its introduction. These unusual presentations deviating from Swales's model leads to some interesting discussion which is highlighted later on in the discussion section of this paper.

Fewer numbers of the RAIs within the TA and IA corpora were represented in the rhetorical category of cyclical move patterns in which M1, M2, M3 were placed interchangeably (No.5-24); 12 patterns found in the TA corpus and 11 patterns for the IA corpus. Among them, there were some move patterns (No.6-8), with one RAI found in each corpus, displaying the same rhetorical organization in both corpora. They included M1-M3-M1-M2-M3 (6.66%), M1-M2-M1-M2-M3 (6.66%), and M1-M3-M2-M3 (6.66%). Importantly, we could see that although most of them did not follow the ideal move pattern (M1-M2-M3), the noticeable beginning with M1 and ending with M3 were still a predomident trend of writing the RAIs in the cyclical move patterns. Exceptionally as we can see in Nos.17, 23 and 24, the interesting presentation of the RAIs could be observable when Move 3 was set at the beginning and repeated either in the middle or in the end. One was found in the TA corpus while the other two were spotted in the IA counterparts.

It is hard to say here that any particular move patterns of the cyclicals were predominant one because of the inconsistent frequency compared to those of the linear move patterns. It was discovered that most of the cyclical move patterns had only a single RAI that represents each different move pattern. They were scattered without fixed patterns. Therefore, a deviation from the typical move pattern of the M1-M2-M3 norms proposed by Swales could possibly exist in the actual writing practice of the Thai and international ELT academicians.

4.2 Discussion of Macro-textual Organization Results

In accordance with the similarities and differences that were found in the corpora of ELT research article introductions (RAIs) written by Thai academicians (TA) in well-

established national journals vs. international academicians (IA) in leading world-famous journals, a number of interesting points in relation to their rhetorical move-step occurrences and structural patterns could be discussed.

To begin with, since introducing the topic of the study to create research contextuality is the key communicative function in composing an RAI, the presence of the main Move 1 conforming to Swales' rhetorical model was completely established in the corpora of this study. The move was thus regarded as obligatory and provided the first similarity as a result in both TA and IA corpora. This indicated that both Thai and international ELT researchers tried to effectively centralize their research construction to readers around the target research topic through the employment of Move 1. As Swales (1990, p. 144) clearly confirmed, the valuable function of this is that it "appeals to the discourse community whereby members are asked to accept that the research to be reported is part of a lively, significant or well-established research area". This result similarly corresponded to many previous studies acknowledging the established existence of this move in the introduction section (e.g. Samraj, 2002; Ozturk, 2007; Sheldon, 2011; Jirapanakorn, at al., 2014). For example, in the study of move-based analysis of Thai and International Medical Journals (Jirapanakorn, at al., 2014), it was found that Move 1: Presenting background information is a salient feature as it occurred in all RAIs in the corpora. Move 1 thus gained prominence owing to the assumption that if the terminology and background knowledge are not sufficiently provided, it will make many readers find the research difficult to understand (Anthony, 1999; Ozturk, 2007). However, from observation, the results showed that the IA were more likely to stress Move 1 by providing extensively academic background knowledge to readers by referring to former studies than the TA. For instance,

- *Many researchers have acknowledged the importance of students' informational text comprehension in a second and foreign language reading (Grabe & Stoller, 2014; Shen, 2013).* (TA8)
- *Although some studies have claimed that WCF is ineffective or harmful (e.g., Kepner, 1991; Truscott, 1996, 1999, 2004, 2007; Truscott & Hsu, 2008), others have shown that, in certain contexts, it can improve aspects of L2 writing accuracy (e.g., Bitchener, 2008; Bitchener & Knoch, 2008; Bitchener, Young &*

Cameron, 2005; Ellis, Sheen, Murakami, & Takashima, 2008; Ferris, 2006; Russell Valezy & Spada, 2006; Sheen, 2007). (IA13)

This suggested a stronger preference or tradition of the IA in world leading journals to point out previous and relevant studies in order to strengthen the research territory being reported than is evident for TA. This corresponded to the idea of Hart (2001) that giving fully-developed justification for the research being conducted reflects an earnest attempt of a scholar who wishes to make a written work academically well-grounded. This would also benefit readers by helping to determine a scope and locate existing gaps in the previous studies to do their own research in the future.

Although the importance of Move 1 is unquestionable, it may not necessarily exist as the main obligatory move in all RAIs. According to some other studies that compared applied linguistic RAIs between local and international journals (see e. g. Jalilifar, 2010; Amnuai, & Wannaruk, 2013), its status could be reduced to be conventional due to the fact that some local RAIs can be written without asserting this very move. In addition, as found by Samraj (2002), who compared introductions in research articles on Wildlife Behavior and Conservation Biology, it was found that the territory construction by Move 1 may not be stated as the introduction of the subject research can sufficiently be fulfilled or justified by stating gaps in previous research (Move 2) instead. This also reveals the possibility of different organization of rhetorical moves in different disciplinary norms.

The significance of Move 2: Establishing a niche is very much acknowledged in Swales's framework because it helps draw readers' attention to a gap or weakness of the already existing literatures (M2S1A) or research orientation via adding to what is known (M2S1B), or positive justification (M2S2). Despite this, not all of the RAIs in this study contained this very move as it was found in only 70% of each corpus, thus making this move conventional for both corpora. This similar deviation from the framework could be explained in the point of view that the writers may assume that readers know the present studies were carried out in the same fashion as the previous research studies already mentioned in Move 1; therefore, it is not necessary to mention a research gap. (Kanoksilapatham, 2002). Besides, it is possible that the writers see the substitution power of other obligatory moves and optional steps, such as the use of *M3S1:*

Announcing present research descriptively and/or purposefully or *M3S6: Stating the value of the present study*, more impotant than the use of Move 2. This is because there were usually the occurrences of other communicative units in Move 3 additionally presented instead whenever the sign of Move 2 was missing. The explanation of the omission or less frequent use of Move 2 may further be on account of cultural linguistics or socio-cultural aspects (see e.g. Taylor & Chen, 1991; Jogthong, 2001; de Rezende, Hirano, 2009; Loi, 2010) that a number of academic writers tend to avoid determining gaps or commenting on previous studies since this could express some degree of face-threatening acts (Brown & Levinson, 1987), where it is considered culturally inappropriate or invalid to raise questions about former findings that might have been in different contexts of investigation (Loi & Evans, 2010).

In terms of the methods to establish a niche (see Lim, 2012), it is interesting to learn that the TA and IA indicated a gap (M2S1A) by emphasizing the insufficiency of research in a specific area in most of their RAIs. The examples below describe this fact.

- *Studies of CS in the classroom in Thailand, especially the opinions regarding the usage of L1 in the language classroom, are still rare.* (TA7)
- *Many studies have been published on the topic of foreign language anxiety (e.g., Horwitz, 1986) and study abroad (e.g., Davidson, 2010; Kinginger, 2008), and there have even been a few studies that focus on the relationship of experience abroad and language learning anxiety (e.g., Allen &Herron, 2003).* (IA1)

However, very few mention the complete absence of research, reveal a limitation in previous research, or contrast conflicting previous research findings. The reason behind this could be owing to the nature of writing conventions in ELT academic communities. That is, according to Taylor & Chen (1991) that soft criticism in some academic fields of studies is fairly acceptable. The evaluation of others' works could be considered too direct and inappropriate. Unlike some academic societies, the value of utterences is highlighted when lines of explicit argumentation are highly expressed in discourse. Hence, mentioning the insufficiency of former literature seems to be a safer approach for both groups of the ELT academicians to provide typically adequate shared knowledge in research context and reduce the writing complication as well as the sense

of confrontation by asserting critical comments to other researchers. As Loi & Evans (2010) put forward, in some cultures positioning oneself by explicitly criticizing others' ideas could be considered 'unacceptably antagonistic'. The use of forcefully assertive expressions in creating research gaps should be avoided at all costs.

The occurrence of *Move 3: Announcing present research descriptively and/or purposefully* (M3S1) in both TA and IA corpora was proved to be a very important rhetorical component because it explicitly outlined what the academicians were going to do or provide information on their works. From this result, it suggested the state of being much more obligatory for the IA corpus as the move unit appeared up to 93.33% in its RAIs. Nonetheless, it was indeed conventional for the TA corpus since as much as 30% of its RAIs lacked a necessary element to realize this very move. For the absence of this move in the TA corpus, it might be explained using the notion of reader versus writer responsibility (Hinds, 1987) to some extent; that is to say, the style of writing by the IA was likely to be more writer-responsible than those written by the TA. It is necessary that writers be explicit in projecting what they intend to do so that readers comprehend writers' firm standpoints and arguments. The style of writing RAIs by the TA, on the other hand, tended to be more reader-responsible, which omitted the move or provided less explicit communicative units to allow readers to participate in exploring the content more while reading. They are given a chance to play an active role as good readers in all reading. Considering furthermore, the omission of Move 3 in the the TA corpus may be replaced by some sort of communicative strategy presented by some other move unit. This is exemplified by the following example.

- *… The different perspectives on coherence have rendered coherence an elusive concept, and hence it affects how coherence is understood and how it is taught and learned (Johns, 1986; Lee, 1998, 2002a & 2002b). <u>However, there have been a few studies that investigated pedagogical aspects of coherence</u> (Conner & Farmer, 1990; Lingprayoon, Chaya & Thep-ackrophong; Suraishkumar, 2004).* (TA29)

The above sample was chosen from the RAI written by a Thai academician who did not include Move 3 in it. The salient meaning of the underlined sentence informs us

that it rather functions as *Move 2 step 1A: Indicating a gap* (M2S1A). However, the element '…that investigated pedagogical aspects of coherence…' may also suggest that this Thai researcher wanted to study coherence through the investigation in terms of the practice or method of teaching to give clearer answers from a different research point of view. As a result, s/he may not have to display the typical sign of Move 3 like 'the aim of this study is to…' to readers. This could be seen as another indirect but interesting negotiation of meaning embedded in the rhetorical move via a writing strategy. My analysis here is in line with Duszak (1994) who discovered that the implicit presentation of Move 3 in the introduction part is also possible in language-related studies. Therefore, readers of the TA seemed to be encouraged to seek and connect information more on their own than when they read the RAIs written by the IA counterparts who tended to explicitly indicate more details in the move units.

In regard to the other six optional steps (M3S2-M3S7), the results revealed the similarity of the two corpora in the way that the academicians limited the use of them (0-30%) (see Table 4.5). In each corpus, however, these optional steps displayed slight differences among themselves. That is, the minor frequencies of the steps implied the TA's preference of employing *M3S2: Presenting RQs or hypotheses* (30%) and *M3S6: Stating the value of the present study* (23.33%) in the RAIs to some extent when compared to the rest that contained only 0-16.66%. Meanwhile, all of the optional steps written by the IA did not show this since the frequencies among them were more or less the same (10-16.66%). The realization of the Move 3 was, therefore, largely dependent on the obligatory move or step, *M3S1: Announcing present research descriptively and/or purposefully*, which existed mostly within both corpora (70% for the TA corpus and 93.33% for the IA corpus). The predominant use of M3S1 in the corpora was in consonance with what was found in previous studies (e.g. Jogthong, 2001; Ozturk, 2007; Samraj, 2008; Hirano, 2009; Wannaruk, & Amnuai, 2015). These pointed out the crucial status of M3S1 in the introduction section for both corpora.

What is more, in spite of being an optional role, M3S5 tends to be widely discovered in the hard fields of studies (Holmes, 1997) like in computer science (Shehzad, 2005) or in engineering (Anthony, 1999; Kanoksilapatham, 2011). However, in this study, it was noticeable that the optional step *M3S5: Announcing principal*

outcome did not exist in the TA corpus but occurred in a small percentage (10%) in the IA corpus. In this point, it could be argued that the TA and IA may not be familiar with putting this optional step in their RAIs. The other reason might be that it is preferable for a large number of academic writers to keep the principal findings in the result section (Nwogu,1997), and the non-existence of M3S5 is regarded common in writing a research introduction in many disciplinary fields. Swales (2004, p. 230, 232) defined this step as "PISF: Probable in some fields, but unlikely in others." This might be logical enough to explain why M3S5 was omitted or infrequently found in the corpora.

With the aim to point out the macro-textual organizaton of a single discipline between the two groups of academicians, the structural move sequence of the RAIs in both corpora suggested that there are similarlities and differences between them. That is to say, the sequences of move patterns revealed the prominent use of the M1-M2-M3 pattern (see Table 4. 9), especially in the IA corpus (43. 33%), which relatively coresponded to the results of other studies conducted earlier (e. g. Jogthong, 2001; Ozturk, 2007, Hirano, 2009; Jirapanakorn, et al., 2014). This is because, as Ozturk (2007) stated, similar to research in hard sciences, studies in applied linguistics are clearly part of an 'established' area of study in which the clearly structured and defined move pattern is desired. As a result, the M1-M2-M3 move pattern tends to be a better choice for many academicians than any other ones. Nevertheless, since more RAIs belonging to this move pattern were found in the IA corpus (43. 33%) than those of the TA corpus (20%), it could be concluded that the international researchers conformed to the CARS model more strictly than the Thai scholars who tended to use a wider varierty of move sequences.

As a follow-up of the CARS model, this study cast doubts on some other research findings. To explain, Crookes (1986) posited that shorter introductions tend to contain the simple M1-M2-M3 move sequence, while longer ones are expected to have more complicated move organization, (e.g. M1-M2-M1-M3-M2). The result of this study, on the contrary, revealed that there is no evidence of relationship between the length of RAIs and the move patterns. It was found that, for example, a shorter RAI (TA7), consisting of 388 words, may have a more complex move pattern (M1-M2-M3-M2-M3) than a longer RAI (TA25) which has 534 words with the M1-M2-M3 pattern. This disagreement

with Crookes' work might be due to disciplinary differences between his data from scientific texts which are different in nature from ELT texts. Perhaps a study with more extensive corpora could better answer this question.

Further examination disclosed another interesting point. Although the research findings demonstrated the wide variety of cyclical move patterns in both corpora, it was found that Move 1 was the most common cyclical move in almost all patterns. This once again emphasizes the importance of Move 1 as the essential communicative unit in ELT research articles. As a number of prior studies (e.g. Ozturk, 2007; Pho, 2008) agreed, the fields of applied linguistics and language studies are pertinent to a well-established field. So, the provison of a theoretical framework as well as relevant previous studies in research articles is necessary for helping readers to understand the present study. This could be an explanation why Move 1 was meaningfully utilized in both TA and IA corpora.

It is important to note here that there is actually no officially standard practice in writing a research article introduction within a particular discipline that always influences the rhetorical move patterns of academicians. Rather, it depends largely on academicians' background knowledge, preferences, or experiences in academic communities which actually influence the way they write (Tardy, 2005; Sheldon, 2011; Martín & Pérez, 2014). More importantly, the requirement of published contexts (Lillis & Curry, 2010, cited in Flowerdew, 2015) could also be a major factor determining the rhetorical organization of an introductory section as Holmes (1997) confirmed variation between the characteristics of hard and soft sciences in research article publications. For instance, Kanoksilapatham (2007) posited the antipacitory norms and conventions of scientific communities that are different from other disciplinary fields and that require academicians in particular fields to create their written works to meet the scholarly expectations.

The study of rhetorical move structures, in which many genre analysts have been mainly interested in the introduction section, (e.g. Jogthong, 2001; Im-O-Cha, 2004; Ozturk, 2007; Hirano, 2009; Loi, 2010) abounds in academic writing, and offers a variety of different perspectives. However, the precise linguistic features and expressions supporting the establishment of each rhetorical move has remained quite elusive. In

consequence, the next part of this study is dedicated to a comparative analysis to find out more regarding the linguistic phenomenon known as metadiscourse. This linguistic phenomenon was found throughout the RAIs as the organization sytem of the texts' communicative units. The findings in terms of the similarities and differences embedded in the rhetorical characteristics of the two target corpora could hopefully lead to the deeper understanding of the written academic discourse in English language teaching.

4.3 Results of Analyzing Metadiscourse Features

The presentation of the second phase in this comparative analysis is an attempt to answer the research question two: "What are the common similarities and differences in the use of metadiscourse found within the macro-textual organization in the two sets of English RAIs?" That is, after 60 RAIs in the TA vs. IA corpora had intensively been analyzed in the previous chapter based on Swales's (2004) CARS model, 11 metadiscourse features based on the taxonomy of Hyland & Tse's (2004a), Hyland's (2005a), and Jiang & Hyland (2016), embedded in the macro-texual organization or rhetorical move patterns, were then thoroughly identified and compared. The focus of analysis was on the target metadiscourse features including: 1) Interactive resources: *Transitions, Frame markers, Endophoric markers, Evidentials, Code glosess,* 2) Interactional resources: *Hedges, Boosters, Attitude markers, Engagement markers, Self-mentions*, and 3) *Metadiscourse nouns*. The analysis is meant to descriptively reveal the similarities and differences in the use of metadiscourse within the main move organization (M1, M2, and M3), which include all the obligatory, conventional, and optional move units, as well as discuss the factors contributing to the use of metadiscourse found in the two sets of RAI corpora in the discussion section. The explanation is carried out by referring to Appendix B: Distribution of metadiscourse in sub-types of each rhetorical move, so please see this section for better understanding. The analyzing details are as follows.

4.3.1 Interactive Metadiscourse

4.3.1.1 Transitions (TS)

From the analysis, TS were commonly found in both corpora to show the markedness of syntactic and logical connections between preceding and subsequent

clauses. In order to form meaningful propositions, a wide range of TS were comprised mainly of conjunctions and adverbs, all of which have communicative functions to demonstrate the additive, contrastive, as well as inferential steps in the RAIs. These TS could therefore ease the burden of making meaningful interpretation of the corpora. From the use of the concordancing program and manual identification, there were 35 intra- and inter-sentential TS altogether found in this study, as included in Table 4.10 below.

Table 4.10 List of transitions (TS) found in the RAIs of both corpora

Types of transitions	Additive	Contrastive	Inferential
Conjunctions	and	but, although, even though, though	as, because, since, so, so that
Adverbs	additionally, also, besides, moreover, further, furthermore, in addition	however, nevertheless, nonetheless, on the contrary, on the other hand, rather, whereas, while, yet	accordingly, as a consequence, as a result, consequently, hence, therefore, thus, subsequently, for this reason

The table shows the number of TS items belonging to the different sets, namely conjunctions and adverbs. These two could further be divided into other three sub-categories of TS. Additive items, such as *and, also, moreover*, connect the two immediate clauses and refer to additional information of the other clause. Contrastive items, on the other hand, indicate contradiction of ideas between two clauses. They are such as *but, although, however*. The last one is called inferential, the function of which is to relate cause and effect between two clauses. *Because, so,* and *since* are examples of this sub-category. To understand the density of TS in the corpora, the data is presented below.

Table 4.11 Transitions (TS) in the RAIs per 1,000 words and per 10 sentences

Transition Counts	TA corpus (13,423 words/505 sentences) F= 221	IA corpus (13,511 words/404 sentences) F= 174
No. of words per 1000 words	16.46	12.88
No. of sentences per 10 sentences	4.37	4.30

Table 4.11 shows the density of TS in each corpus per 1,000 words and per 10 sentences from the total of 13,423 words and 505 sentences in the TA corpus and the total of 13,511 words and 404 sentences in the IA corpus. There were altogether 395 items identified throughout both corpora. The occurrences were 221 for the TA corpus and 174 for the IA one. Therefore, the density in the TA corpus was 16.46/1,000 words, while 12.88/1,000 words were found in the IA corpus. For the sentence density, it was found that the TA corpus contained 4.37/10 sentences. The IA corpus had slightly fewer numbers of TS when 4.30/10 sentences were found, when compared to its counterparts. Overall, the density of TS in the TA corpus was higher than that of the IA corpus.

Next, the TS found in the corpora are dentified based on the classification of their sub-types. This was done to reveal the salient similarities and differences between the two groups of academicians in each main rhetorical move (M1-M2-M3). So, the next table illustrates the occurrences of TS which were found in each rhetorical move structure. The detailed distribution of TS in their sub-types in terms of numbers within each main move is provided in Appendix B1.1.

Table 4.12 Occurrences of transitions (TS) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	150 (67.87%)	94 (54.02%)
M2: Establishing a Niche	36 (16.29%)	38 (21.84%)
M3: Presenting the Present Work	35 (15.83%)	42 (24.13%)
Total	**221 (100%)**	**174 (100%)**

From Table 4.12, there were a higher number of TS found in the TA corpus than the IA one. Thus, the RAIs written by the Thai academicians displayed semantic relations between main ideas of propositions by using these metadiscoursal markers more often than those written by the international authors in general. That is, with the approximate length of the two corpora, 221 TS items were found in the TA corpus, but there were only 174 TS items found in the IA counterparts. In particular, the TA employed more TS in *Move 1: Establishing a territory* up to 67.87%, while, in the same move, the lesser percentage of 54.02% was found in the IA corpus. Nonetheless, the IA tended to use more TS in *Move 2: Indicating a gap* and *Move 3: Presenting the present work* than the

TA to some extent, as it was found 21.84% and 24.13% for move 2 and move 3 respectively in the IA corpus. On the other hand, the percentages of move 2 and 3 in the TA corpus were minimized to only 16.29% and 15.83%. This may suggest that the preference to connect clauses among the Thai scholars was in move 1 when they wanted to establish a research territory and minimize the use of TS in move 2 and 3, while the same tendency was less likely in move 1 in the IA corpus since the international scholars tended to distribute the use of TS more in move 2 and 3. The identification of the 3 sub-categories of TS within each particular rhetorical move is illustrated below.

Table 4.13 Types of transition in Move 1: Establishing a Territory

Transitions	TA Corpus	IA Corpus
Additive	56 (37.33%)	41 (43.62%)
Contrastive	45 (30%)	34 (36.17%)
Inferential	49 (32.67%)	19 (21.21%)
Total	**150 (100%)**	**94 (100%)**

As shown in the Table, the TA obviously used many more TS of every type than the IA (150 vs. 94 occurrences) in this first move. The favorite TS used by Thai academicians included *and, however, since, therefore, thus,* some of which were even omitted or less likely to be found in the IA corpus (see Appendix B1). From the percentages of 30-37.33%, the TA also appeared to distribute the use of additive and contrastive as well as the inferential ones almost equally. For example,

- *(M1)* **_Therefore_**, *the educators have attempted to mix education with entertainment in the classroom, dubbing this combination edutainment.* (TA3)
- *(M1)* **_Thus_**, *schools in Thailand are obligated to teach students with disabilities into their class.* **_Hence_**, *it is clear that LD students are regarded as part of the education system that must not be left behind.* (TA5)

Turning to the IA corpus, the use of fewer TS of every type is apparent, when compared to its counterparts, especially the inferential TS which were far fewer (19 vs. 49 occurrences). In other words, the international academicians preferred to minimize the use of the TS, particularly the inferential ones, to a greater degree compared to the Thai academicians.

Table 4.14 Types of transitions (TS) in Move 2: Establishing a Niche

Transitions	TA Corpus	IA Corpus
Additive	11 (30.55%)	10 (26.31%)
Contrastive	17 (47.22%)	21 (55.26%)
Inferential	8 (22.22%)	7 (18.42%)
Total	**36 (100%)**	**38 (100%)**

The pattern of transitional use in Move 2 was different to that of Move 1 in the way that both Thai and international academicians seemed to use TS in almost equal numbers (36 vs. 38 occurrences), and the percentages of each transitional sub-type reveal similar patterns in a way that they are only slightly different in proportion. However, the main marked point here was that the percentages of using contrastive TS were very high in both corpora, 47.22% and 55.26% respectively. This leads to the fact that the key feature of Move 2 was supported by the prominent use of contrastive transitions. For example,

- *(M2S1A) A number of recent studies reported that… **Nevertheless**, very little is known about how Thai learners perceive the use of vocabulary learning strategies, …(TA19)*
- *(M2S1A) The amount of research on practical applications designed to enhance learner motivation, **however,** has been extremely limited. (IA3)*

Table 4.15 Types of transitions (TS) in Move 3: Presenting the Present Work

Transitions	TA Corpus	IA Corpus
Additive	14 (40%)	21 (50%)
Contrastive	2 (5.71%)	8 (19.05%)
Inferential	19 (54.29%)	13 (30.95%)
Total	**35 (100%)**	**42 (100%)**

From Table 4.15, even though the TS were found more in the IA corpus than its TA counterparts, the interesting differences are that the use of TS by the IA in terms of additive and contrastive sub-type was rather in the opposite direction from the previous moves. That is, the occurrences of these TS in the IA corpus were greater in numbers

than those of the TA's. This may indicate the preference of the international scholars for further adding and contrasting their ideas between clauses in the third move, whereas the emphasis of the inferential TS was placed, once again, in the TA corpus where 54.29% of it was found, but there was only 30.95% of this type in the IA corpus.

The use of transitions played a major role in the RAIs written by the TA to a greater extent than those written by the IA, especially in Move 1. The extensive use of inferential transition which revealed the cause-effect relationships in discourse was strongly evident in the RAIs written by the Thai academicians. This indicated that they were most likely to employ a lot more inferential TS to construct their arguments in academic texts than the international academicians. In the other aspect, despite the overall emphasis of using transitions by the TA in greater numbers in Move 1, it was yet found that the IA used more additive and contrastive TS in Move 3 than the TA counterparts. That is, while the TA emphasized the use of metadiscourse markers in move 1, the IA highlighted the importance of TS in Move 3 also.

4.3.1.2 Frame markers (FM)

With regards to the organization of discourse acts indicating text boundaries, the two groups of academicians similarly used the metadiscourse items categorized as *announcers, sequencers*, and *topicalizers*. Without the presence of *discourse labels*, all of the items under their existing sub-types of the frame markers are listed in the table below.

Table 4.16 List of frame markers (FM) found in the RAIs of both corpora

Types of frame markers	
Announcers	as follows, following, is/was to, aims/aimed to, aims at, attempts to, is an attempt to, was conducted to, was designed to, is carried out to, the aims of…were…
Sequencers	first, second, then, next, finally
Topicalizers	concerning, regarding, with regard to, in this regard, in terms of
Discourse-labels	-

As shown in the table, a number of FM items illustrated the different functions of frames the TA and IA wished to set as a boundary of their text structures. Here, they used *announcers* when they wanted to clarify their particular points or goals. If they wanted to put their ideas of actions into order, they used *sequencers* like first, then, or finally. Together, they used *topicalizers* at the beginning of sentences such as *with regard to, in terms of* and so on to express shifts when they wanted to lead readers to different topics. Nonetheless, *discourse-labels* were not found in both corpora. For the density of FM in the corpora, the result is shown in the table below.

Table 4.17 Frame markers (FM) in the RAIs per 1,000 words and per 10 sentences

Transition Counts	TA corpus (13,423 words/505 sentences) F= 29	IA corpus (13,511 words/404 sentences) F= 32
No. of words per 1000 words	2.16	2.37
No. of sentences per 10 sentences	0.57	0.79

The frequency of the discourse items was relatively close in numbers, 29 occurrences for the TA corpus and 32 occurrences for its IA counterparts. The density in the TA corpus was thus 2.16/1,000 words, while 2.37/1,000 words were found in the IA corpus. For the sentence density, it was found that the TA corpus contained 0.57/10 sentences. The IA corpus had higher numbers of 0.79/10 sentences when compared to those of the TA. Therefore, the higher density of FM in terms of word numbers and sentences was found in the IA corpus. To futher illustrate the similarities and differences in the use of the markers, the distribution of them was classified according to the primary moves in details (see Appendix B1.2)

Table 4.18 Occurrences of frame markers (FM) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	5 (17.24%)	1 (3.12%)
M2: Establishing a Niche	1 (3.44%)	1 (3.12%)
M3: Presenting the Present Work	23 (79.31%)	30 (93.75%)
Total	29 (100%)	32 (100%)

Seeing the data collected, we may say that both corpora had approximately the same proportion of FM, with only a few more items found in the IA corpus (29 vs. 32 occurrences). The heavy concentration of FM was, however, on *Move 3: Presenting the present work* because their large percentages of 79.31% in the TA corpus and a hefty 93.75% in the IA one were identified. This suggested a strong connection between this metadiscourse and Move 3 in scholarly works written by Thai and international academicians. For example,

- *(M3S1) The research project described in this article **aimed to** investigate leadership practices which support ESOL teaching and learning…(IA22)*

In *Move 1: Establishing a territory*, the TA tended to produce some more FM than its IA counterparts since there were higher numbers of the markers found in their RAIs, that is, 17.24% from 5 occurrences vs. 3.12% from 1 occurrence. For establishing a niche in Move 2, only 1 occurrence of FM was found in each corpus, thereby indicating the rare use of the markers in this move unit among the academicians. Here, it might be said that the IA did not care very much about using FM in Move 1 and 2, while the TA used the markers to some degree in Move 1 but ignored them in Move 2. Below, the FM identified in the corpora are illustrated in accordance with their sub-types within each move (M1-M2-M3) to disclose the salient similarities and differences between the two groups of academicians.

Table 4.19 Types of frame markers in Move 1: Establishing a Territory

Frame markers	TA Corpus	IA Corpus
Announcers	2 (40%)	-
Topicalizers	3 (60%)	1 (100%)
Total	**5 (100%)**	**1 (100%)**

As shown in the table, although there were limited numbers of FM in this move, the TA used more of them than the IA (5 vs. 1 occurrences). That is, some of the TA presented their research territory using announcers ' … as follows' before giving additionally main ideas and a few topicalizers like 'Regarding…' at the beginning of a sentence. The IA, on the other hand, tended not to frame their ideas at all since there was only one FM, a topicalizer 'with regard to…', found.

In *Move 2: Establishing a Niche*, both TA and IA scarcely used FM to frame their proposition. Only one marker of each corpus was found in this second move. This reflected a very rare use of FM by the two groups of academicians in this move.

Table 4.20 Types of frame markers (FM) in Move 3: Presenting the Present Work

Frame markers	TA Corpus	IA Corpus
Announcers	23 (100%)	17 (56.66%)
Sequencers	-	12 (40%)
Topicalizers	-	1 (3.33%)
Total	**23**	**30**

The results shown in Table 4.20 revealed that the TA corpus contained only announcers, while the IA corpus possessed a variety of FM including *announcers*, *sequencers,* and *a topicalizer*. It is clear that *announcers* were the the majority sub-type of FM predominately employed by both groups of academicians with 23 occurrences for the TA corpus and 17 occurrences for the IA one. Among the occurrences, there were some markers which were more frequently used by the academicians than others. It was interestingly found that Thai academicians preferred to use the marker *'…aims/aimed to…'*, while international scholars seemed to especially use the marker *'...is/was to…'* to announce their goals of studies. At the same time, some announcers were only used by the TA but were not used by their IA counterparts. That is, the TA used the markers including *'…aims at…'*, *'…the aims of…were…'*, and the passive construction *'…is carried out to…'*, *'…was conducted to…', and '...was designed to…',* while only the IA used *'...attempts to…'* and *'...is an attempt to…'*

In addition, the second set of FM functioning as *sequencers*, namely, first, second, then, next, and finally, surprisingly existed merely in the IA corpus. The 12 occurrences or 40% of the markers suggested an important role of *sequencers* in the RAIs written by international academicians. This sub-type of FM was, however, omitted completely in the TA corpus.

If considering the occurrences of FM in all three main moves together, another interesting result showed that Thai academicians especially preferred to use the announcer *'…following…'* to introduce important points in their RAIs (5 occurrences).

The similar sentence patterns (to + verb + noun phrase) were frequently produced in the TA corpus. For example,

- *(M3S1) '...to answer the <u>following</u> questions.'* (TA2),
- *(M3S1) '...to answer the <u>following</u> research questions'* (TA12),
- *(M3S1) '...to fulfil the <u>following</u> goals'* (TA3).

Likewise, the announcer *'... as follows'* was found only in the TA corpus (4 occurrences), and Thai academicians often used it before referring to the main points. For instance,

- *(M1) Ye ...state the importance of parental involvement <u>as follows</u>.* (TA26)
- *(M3S1) These three task types are <u>as follows</u>.* (TA18)

This kind of metadiscourse use was not, however, found in the IA corpus. The differences of FM between the two corpora clearly indicate different preferences in the selection of metadiscourse items representing their organization of discourse acts indicating text boundaries in the RAIs.

4.3.1.3 Endophoric markers (EM)

Endophoric markers (EM) were rather minimally found in the two corpora. This suggested that referring to related information in other parts of the text did not seem to be a marked feature of the target RAIs in this study. That is, there were only 5 linguistic items altogether representing this kind of metadiscoursal marker in the entire corpora. They are shown in Table 4.21 below.

Table 4.21 List of endophoric markers (EM) found in the RAIs of both corpora

Types of endophoric markers	
Linear references	above, below, following, next
Non-linear references	see

Linear references were found in the use of 4 items, which were *above, below, following,* and *next*. For non-linear references, the only one found is the item *see*. The analysis reveals the fact that the IA used more EM than the TA, and the density of endophoric markers in the two sets of corpora is presented in the table below.

Table 4.22 Endophoric markers (EM) in the RAIs per 1,000 words and per 10 sentences

Endophoric marker counts	TA corpus (13,423 words/505 sentences) F= 7	IA corpus (13,511 words/404 sentences) F= 22
No. of words per 1,000 words	0.52	1.62
No. of sentences per 10 sentences	0.14	0.54

The density of the markers in the TA corpus was 0.52/1,000 words, while 1.62/1,000 words were found in the IA corpus. For the sentence density, it was found that the TA corpus contained the markers 0.14/10 sentences whereas 0.54/10 sentences were found in the IA corpus. As a result, when compared to the IA corpus, the density of EM found the TA corpus was just under one in three of the IA corpus in terms of the number of words and sentences. To compare the common similarities and differences of the EM in the RAIs written by the TA and IA, the next table illustrates the occurrences of the markers found in each rhetorical move structure (M1-M2-M3). The distribution of the EM in their sub-types in terms of numbers within each main move is provided in Appendix B2.3.

Table 4.23 Occurrences of endophoric markers (EM) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	2 (28.57%)	14 (63.64%)
M2: Establishing a Niche	2 (28.57%)	2 (9.09%)
M3: Presenting the Present Work	3 (42.56%)	6 (27.27%)
Total	**7 (100%)**	**22 (100%)**

Overall, although the number of EM was not extensively used in both corpora as only 29 occurrences were found, Table 4.23 shows the considerably higher numbers of EM used by the international academicians than those found in the TA corpus. Of the entire corpora, there were 22 occurrences of EM in the IA corpus, while there were merely 7 of them found in the TA corpus. It is clearly seen that the IA employed a lot more EM in *Move 1: Establishing a territory,* up to 14 occurrences or 63.64%, while only 2 occurrences, or 28.57% was found in the TA corpus. The rare use of EM is apparent in *Move 2: Indicating a gap* since both corpora contained equal but small

numbers of EM, only 2 occurrences each. For *Move 3: Presenting the present work*, 6 occurrences of EM were found in the IA corpus, while half of this number was found in the TA counterparts.

To further illustrate the result, among the linear references (see details in Appendix B2), if not omitted, all of the 4 markers including *above, below, following*, and *next* would occur only once throughout each move of the two corpora. Therefore, they did not significantly reflect any similarities or differences between the corpora, so they were not shown in this part. However, the striking non-linear reference *see* is worth mentioning here because it markedly revealed the difference in the use of EM between the two groups of academicians. Compared to its tiny minority in the TA corpus, the EM *see* was predominantly used by the international academicians in the citation part, especially in Move 1, within the parenthesis showing how readers could be in touch with the relevant subject matter that other researchers published previously. For example,

- (M1) *…for economic and social development, and for the operation of school systems" (Bray & Kwo, 2014, p. viii;* ***see*** *also Bray, 2009)* (IA8).

Besides this, some of the EM items were used to indicate futher references in other part of the RAIs. For example,

- (M3S4) ***See*** *Appendix A for the essay rating scales.* (IA25).

All in all, the non-linear reference *see* thus particularly existed in the IA corpus where the practice of citation is the most influential element found in the international academician's writing.

4.3.1.4 Evidentials (ET)

Making references or providing academic ET to other scholarly works is another central feature found in ELT research article introductions written by both Thai and and international academicians since different ET types were extensively employed in the corpora. The production of references in the form of ET was found according to the framework as presented below.

Table 4.24 Lists of evidentials (ET) found in the RAIs of both corpora

Types of evidentials	
Integral	Verb controlling (e.g. X (2018) stated that…)
	Naming (e.g. According to Y (1999),…)
	Non-citation (e.g. Z states that…)
Non-integral	Source (e.g. …(X & Y, 2000))
	Identification (e.g. …(e.g. X, 1995; Y, 2003; Z, 2009)
	Reference (e.g. …See X, 1998, p.5)
	Origin (e.g. …seminal work…(X, 1990)

In this analysis, in order to maintain the reliable count of ET numbers, each occurrence of the writer's name from one source was regarded as one ET, no matter whether it was followed by the year reference or other writers. For the details of their sub-types in terms of numbers within each particular move, they are provided in Appendix B4. Here, in the table below, the results reveal the overall variations of the use of ET between the two groups of academicians.

Table 4.25 Occurrences of evidentials (ET) in each rhetorical structure

Rhetorical move-step structures	TA corpus	IA corpus
M1: Establishing a Territory	266 (81.34%)	370 (75.66%)
M2: Establishing a Niche	56 (17.14%)	81 (16.56%)
M3: Presenting the Present Work	5 (1.52%)	38 (7.77%)
Total	**327 (100%)**	**489 (100%)**

The table above shows the occurrences of ET found in each rhetorical move structure. It was found that the total occurrences of each corpus generally indicated the characterization that RAIs written by the IA used many more ET (489 occurrences) than those of the TA counterparts (327 occurrences). Besides, both TA and IA mostly concentrated on the use of ET through *Move 1: Establishing a territory* and the similar trend was on *Move 2: Indicating a gap*. However, the TA apparently used very few ET in Move 3, whereas the IA tended to also employ quite a number of ET in Move 3 more frequently.

Table 4.26 Evidentials in the RAIs per 1,000 words and per 10 sentences

Evidential Counts	TA corpus (13,423 words/505 sentences) F= 327	IA corpus (13,511 words/404 sentences) F= 489
No. of words per 1,000 words	24.36	36.19
No. of sentences per 10 sentences	6.47	12.10

As seen in Table 4.26, the density in the TA corpus was 24.36/1,000 words, while 36.19/1,000 words were found in the IA corpus. For the sentence density, it was found that the TA corpus had 6.47/10 sentences. The IA corpus had double the ET, as many as 12.10/10 sentences, when compared to its counterparts. Obviously, the density, both in terms of words and sentences, of ET in the IA corpus was higher than that of the TA corpus.

Next, the ET found in the corpora is identified, based on the classification of their sub-types, to illustrate the similarities and differences between the two groups of academicians in each main rhetorical move (M1-M2-M3). For the detailed distribution of ET, see Appendix B1.4.

Table 4.27 Types of evidentials in Move 1: Establishing a Territory

Evidentials		TA Corpus	IA Corpus
Integral	Verb controlling	44 (16.54%)	14 (3.78%)
	Naming	16 (6.01%)	19 (5.13%)
	Non-citation	-	1 (0.27%)
Non-integral	Source	132 (49.62%)	212 (57.29%)
	Identification	72 (27.06%)	99 (26.75%)
	Reference	-	18 (4.86%)
	Origin	2 (0.75%)	7 (1.89%)
Total		**266 (100%)**	**370 (100%)**

As illustrated in Table 4.27, the IA used considerably more ET than the TA and every sub-type of ET was found in their corpus. *Source* was the most frequently used in both corpora, 132 occurrences (49.62%) for the TA corpus and 212 occurrences (57.29%) for the IA corpus. This was followed by *identification*, 72 (27.06%) and 99 (26.75%) occurrences were used in the TA and IA corpora respectively. Similarly,

although used in small numbers, the approximately same number of naming was found in both corpora, 16 occurrences (6.01%) in the TA corpus and 19 occurrences (5.13%) in the IA corpus. We can see that the trend of the percentages of these three ET in both corpora was more or less the same. However, the noticeable difference between the two corpora was that the TA tended to emphasize the use of *verb controlling* (44 occurrences or 16.54%) over those found in the IA corpus (14 occurrences or 3.78%). For example,

- *(M1)* **_Bachman and Palmer (1996) stated_** *that the variations in test performances were affected by the test-takers' target language proficiency levels.* (TA18)

Also, there was no reference found in the TA corpus, while, on the other hand, it was found up to 18 (4.86%) in the IA corpus. The use of *origin* was found 7 occurrences (1.89%) in the IA corpus, where this ET item was found merely 2 occurrences (0.75%) in the TA corpus. From the data, the IA made use of all kinds of ET for establishing a territory in Move 1, while the TA clearly omitted the use of *non-citation* and *reference* in their RAIs.

Table 4.28 Types of evidentials in Move 2: Establishing a Niche

Evidentials		TA Corpus	IA Corpus
Integral	Verb controlling	5 (8.92%)	1 (1.23%)
	Naming	-	-
	Non-citation	-	3 (3.70%)
Non-integral	Source	6 (10.71%)	18 (22.22%)
	Identification	43 (76.78%)	39 (48.15%)
	Reference	2 (3.57%)	19 (23.45%)
	Origin	-	1 (1.23%)
Total		**56 (100%)**	**81 (100%)**

As shown in Table 4.28, the TA clearly used fewer ET than the IA in this move. Nonetheless, a prominent role of ET in both corpora was heavily given to *identification* instead of *source* as found in Move 1, that is, 43 occurrences (73.78%) for the TA corpus and 39 occurrences (48.15%) for the IA corpus. *Verb controlling* in the TA corpus seemed to receive attention by its academicians as 5 items (8.92%) of *verb controlling* were found, while there was only one (1.23%) found in the IA corpus. *Source* still gained some importance in the IA corpus since 18 occurrences (22.22%) of it could be counted.

In contrast, just about half of this percentage (10.71%) was found in the TA corpus. *Non-citation* and *origin* were omitted in the TA corpus, but they still had a place in the IA corpus, although few of them were found. Lastly, we can see that *reference* was used quite a lot in the IA corpus as 19 occurrences (23.45%) of it were found, yet, there were only 2 occurrences (3.57%) of this *non-integral* ET were found in the TA corpus.

Table 4.29 Types of evidentials in Move 3: Presenting the Present Work

Evidentials		TA Corpus	IA Corpus
Integral	Verb controlling	-	3 (7.89%)
	Naming	-	3 (7.89%)
	Non-citation	-	-
Non-integral	Source	4 (80%)	16 (42.10%)
	Identification	1 (20%)	-
	Reference	-	11 (28.94%)
	Origin	-	5 (13.16%)
Total		**5 (100%)**	**38 (100%)**

The finding from Table 4.29 obviously displays the fact that the TA scarcely used ET in Move 3. There were only 5 occurrences were found. However, when compared to the IA corpus, almost all kinds of ET were employed in the RAIs. 16 occurrences (42.10%) of source and 11 occurrences (28.94%) of reference, together with some of the other ET were found in the IA corpus.

From all of the results, it could be additionally discussed that even though ET were used within all of the main moves of the two corpora, the number of them were most frequently used in *Move 1*, and they were likely to occur less in *Move 2* and *Move 3* respectively. Moreover, the IA seemed to use a variety of ET in every move, while the TA omitted the use of *non-citation*, and used very few references and origin in their corpus. That is to say, the TA tended to use far fewer ET than the IA in every move, especially in Move 3.

4.3.1.5 Code glosses (CG)

To enhance the reader's understanding in scholarly works, a number of code glosses were used throughout the RAIs by both TA and IA as the basic communicative

strategies to negotiate meaning and guide readers by giving further information. They were found in the forms of their sub-types, namely reformulation and exemplification, which consists of 13 items as presented in the table below.

Table 4.30 List of code glosses (CG) found in the RAIs of both corpora

Types of code glosses	
Exemplification	such as, like, for example, for instance, e. g. , i. e. , namely, including
Reformulation	that is, that is to say, in other words, which means, it means that

As seen in the above table, *exemplification*, on the one hand, is represented by any lexical items referring to a certain example to clarify the exact meaning of an earlier statement. *Reformulation*, on the other hand, refers to the restatement of the earlier propositions to provide further explanation from a different angle so that the message would be clearer or easier to understand. Even though CG were used throughout the RAIs, their density in each corpus was varied in different rhetorical moves.

Table 4.31 Code glosses (CG) in the RAIs per 1,000 words and per 10 sentences

CG Counts	**TA corpus** (13,423 words/505 sentences) F= **70**	**IA corpus** (13,511 words/404 sentences) F= **119**
No. of words per 1,000 words	5.21	8.80
No. of sentences per 10 sentences	1.39	2.94

In general, there were altogether 189 CG items found in both corpora. However, the frequency of CG production in the IA corpus was obviously higher than that of the TA corpus, that is, 119 vs. 70 items. Consequently, the density in the TA corpus was 5.21/1,000 words, while the IA corpus was 8.80/1,000 words. For the sentence density, the TA corpus contained 1.39/10 sentences, while the IA corpus had the number up to 2.94/10 sentences. This indicated that the density of CG items in the IA corpus was clearly higher than that of the TA corpus both in words and sentences. To understand the use of CG in the different moves, the distribution according to each rhetorical move is illustrated in the following tables. To understand the detailed CG distribution, see Appendix B1.5.

Table 4.32 Occurrences of code glosses (CG) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	46 (65.72%)	94 (78.99%)
M2: Establishing a Niche	15 (21.42%)	14 (11.76%)
M3: Presenting the Present Work	9 (12.86%)	11 (9.25%)
Total	**70 (100%)**	**119 (100%)**

With the approximate length of the corpora, we can see overall from Table 4.32 that, in total, there were substantially higher numbers of CG found in the IA corpus than in the IA one (119 vs. 70 occurrences). In detail, the occurrences of CG in *Move 1: Establishing a territory* of both corpora greatly exceeded those of the other two moves. Nevertheless, between *Move 1* of the two corpora, far fewer examples of CG in the TA corpus as opposed to CG in the IA corpus were employed, with 46 vs. 94 occurrences respectively. As for *Move 2: Indicating a gap* and *Move 3: Presenting the present work*, although some CG were found, they represented the small minority of the approximate numbers in terms of their occurrences in the corpora. This suggested that both groups of academicians emphasized the use of CG in *Move 1*, but international academicians were more likely to guide readers using CG when establishing their research territory in Move 1 than Thai academicians. Conversely, both groups minimized the use CG in Move 2 and 3. The similarities and differences could further be described through the investigation into the sub-types of CG within each particular rhetorical move structure. The following tables reveal such results.

Table 4.33 Types of code glosses in Move 1: Establishing a Territory

Code glosses	TA Corpus	IA Corpus
Exemplification	41 (89.13%)	90 (95.74%)
Reformulation	5 (10.87%)	4 (4.26%)
Total	**46 (100%)**	**94 (100)**

In Move 1, the IA corpus clearly contained substantially more CG than the TA corpus; twice as many CG items in the TA's work were identified compared with the IA's (94 vs. 41 occurrences). In detail, the big difference in the use of CG between the corpora is the more frequent use of some CG items in the part of exemplification. That

is, with the overwhelming majority of 89.13% for the TA corpus and 95.74% for the IA corpus, the international scholars extensively used the CG *'e.g.'* with the huge number of 50 occurrences, especially when they referred to the findings of other previous studies in their citations. For example,

- *(M1) Though writing ability is one of the most salient outcomes of higher education, many learners of English as a second language (ESL) continue to struggle to produce writing that is linguistically accurate (**e.g.**, Hinkel, 2002, 2004; Silva, 1993)* (IA13).

Surprisingly, this metadiscourse item was far less frequently found in the RAIs wriiten by the Thai scholars as only 6 occurrences were found in their corpus. Besides this, apart from a few occurrences of other items (1-5 occurrences), the seemingly popular one used was the CG *'such as'* since it occurred 14 and 16 times in the TA and IA corpora respectively (see Appendix B1).

While the CG 'namely', which was used when writers want to give more exact detail, was totally omitted in *Move 1* of the TA corpus, a similar way of expression was substituted by the frequent use of 'including' as a way to exemplify the prior statement. The result revealed the more frequent use of 'including' in the TA corpus than the IA one (12 vs. 7 occurrences). For instance,

- *(M1)…., various <u>strategies</u> have been promoted in internationalizing higher education **<u>including</u>** jointed education, research collaboration, and exchange programs…. (TA6)*

With regard to reformulation, it was found that the CG items in both corpora were used in a small proportion, only 5 occurrences in the TA corpus and 4 occurrences in its IA counterparts. If the difference could be inferred, it might be that the Thai scholars used a variety of ways in reformulating their statements. They used 'that is to say', 'in other words', 'which means…', and 'it means that…', whereas the international scholars used only 'that is' and 'in other words'.

Table 4.34 Types of code glosses (CG) in Move 2: Establishing a Niche

Code glosses	TA Corpus	IA Corpus
Exemplification	13 (86.67%)	13 (92.86%)
Reformulation	2 (13.33%)	1 (7.14%)
Total	**15 (100%)**	**14 (100%)**

We can see from the provided data that in *Move 2* the two corpora did not have much difference in the numbers of CG. The majority of CG belonged to exemplification, 86.67% for the TA corpus and 92.86% for the IA one. Reformulation was, however, very little found, only 13.33% and 7.14% for each corpus respectively. Nevertheless, if we examine the detailed distribution of CG's sub-types in Appendix B1, it is found that, despite having a small proportion of each CG (1-5 occurrences), the TA corpus seemed to diversely employ the exemplification more than the IA corpus since the CG items which include *such as, for instance, e.g., i.e., namely,* and *including* were found. The only dominant CG in the IA corpus, on the other hand, was several items of *e.g.* (12 occurrences) in the IA corpus. This indicated a very important role of *e.g.* in the RAIs written by the international academicians.

Table 4.35 Types of code glosses (CG) in Move 3: Presenting the Present Work

Code glosses	TA Corpus	IA Corpus
Exemplification	7 (77.78%)	11 (100%)
Reformulation	2 (22.22%)	-
Total	**9**	**11**

From Table 4.35, without the presence of reformulation, the IA corpus had slightly more numbers of CG (11 occurrences) than the TA corpus (9 occurrences). The noticeable use of CG could not be clearly seen in this very move since there were only a few occurrences of the CG items across each corpus.

4.3.2 Interactional Metadiscourse
4.3.2.1 Hedges (HG)

In the corpora, a number of hedges or mitigating words were frequently used to display the academicians' uncertainty in their statements. The purpose of this tentative

language is to avoid or lessen the force of claims that may commit themselves to being responsible for such claims. Also, they help enhance the probability of acceptance in academic work. The table below specifies the entire number of hedges found in both corpora of the current study:

Table 4.36 List of hedges (HG) found in the RAIs of both corpora

Types of hedges	
Modal auxiliary verbs	could, may, might, would
Epistemic lexical verbs	appear, assume, seem, suggest, tend
Epistemic adjectives/ adverbs	about, likely, often, probably, possible, possibly, perhaps, quite, rather, relatively

Used as an essential rhetorical strategy in the corpora, hedging was categorically divided into the *modal auxiliary verbs, epistemic lexical verbs*, and *epistemic adjectives/adverbs* as shown in Table 4.36. For the epistemic lexical verbs, their variation of word forms such as *seem, seems, seemed,* were all included in the data analysis and represented under their base form *'seem'*. The density of hedges in terms of words and sentences is presented in the table below.

Table 4.37 Hedges (HG) in the RAIs per 1,000 words and per 10 sentences

Transition Counts	TA corpus (13,423 words/505 sentences) F= 90	IA corpus (13,511 words/404 sentences) F= 97
No. of words per 1,000 words	6.70	7.17
No. of sentences per 10 sentences	1.78	2.40

There were altogether 187 items identified throughout both corpora. The occurrences were 90 for the TA corpus and 97 for the IA one. By calculation, the word density was 6.70/1,000 words for the TA corpus, and 7.17/1,000 words for the IA corpus respectively. For the sentence density, it was found that the TA corpus contained 1.78/10 sentences, while the IA corpus had 2.40/10 sentences. In comparison, the density of HG items in the IA corpus was overall higher than that of the TA corpus, both in words and sentences. In the following parts, the HG found in the corpora are classified according to their sub-types in each main rhetorical move (M1-M2-M3) in order to show the common

similarities and differences of HG used between the two groups of academicians. The detailed distribution of the HG in their sub-types of each main move is provided in *Appendix B2.1.*

Table 4.38 Occurrences of hedges (HG) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	68 (75.56%)	62 (63.92%)
M2: Establishing a Niche	11 (12.22%)	10 (10.30%)
M3: Presenting the Present Work	11 (12.22%)	25 (25.78%)
Total	**90 (100%)**	**97 (100%)**

As shown in Table 4.38, with the total number of HG in the three moves, we can see that the IA corpus used a few more HG than the TA counterparts (97 vs. 90 occurrences). Clearly, the majority of HG were in *Move 1: Establishing a territory* in both sets of corpora as 75.56% and 63.92% were found respectively. The minority of HG were found in *Move 2: Indicating a gap* and *Move 3: Presenting the present work*. In *Move 2*, the numbers of HG were very close in both corpora with 10 vs 11 occurrences (10.30% vs. 12.22%) in each corpus found. The difference among these HG numbers was that the TA corpus had higher numbers of HG items (75.56%) than the IA one (63.92%) in *Move 1*. However, in *Move 3*, the difference was opposite because the HG items in the IA corpus were found in higher numbers (25.78%) when compared to those of the TA corpus (12.22%). To understand the details of HG in terms of their sub-types in each main move, the distribution of each particular rhetorical move is demonstrated below.

Table 4.39 Types of hedges (HG) in Move 1: Establishing a Territory

Hedges	TA Corpus	IA Corpus
Modal auxiliary verbs	30 (44.12%)	21 (33.87%)
Epistemic lexical verbs	21 (30.88%)	20 (32.26%)
Epistemic adjectives/adverbs	17 (25%)	21 (33.87%)
Total	**68 (100%)**	**62 (100%)**

To begin with, the higher number of HG occurrences was found in the TA corpus.

The TA seemed to produce the proportion of HG sub-types differently since different percentages (44.12%, 30.88%, and 25%) were found, whereas the numbers of HG in each sub-type produced by the international acedemicians were more or less the same (33.87%, 32.26%, and 33.87%). Therefore, the IA used different sub-types of HG quite equally.

In detail, for the use of *modal auxiliary verbs*, it was found that the item *'may'* was particularly preferable among the TA and IA alike when compared to other HG items since it was remarkably found in 16 and 17 occurrences respectively. For example,

- *(M1) Second or foreign language learners of English **may** find themselves in a difficult situation when they need to express their ideas…* (TA14)

- *(M1) Morphological awareness **may** facilitate the development of a broad vocabulary that in turn facilitates successful comprehension during subsequent reading.* (IA21)

Interestingly, the item '*could*', which was omitted in the IA corpus, was otherwise found quite often in the TA's. For example,

- *(M1) PBL **could** increase the amount of language input, promote authentic and contextualized language use, shift the students' attention from using accurate forms to represent meaning…*(TA25)

As regards *epistemic lexical verbs*, both corpora had a very close number of HG items, 21 occurrences (30.88%) for the TA corpus and 20 occurrences (32.26%) for their IA counterparts. Yet, the items *'appear'* and *'suggest'* were frequently used among the IA since 6 and 11 occurrences were found out of 20 occurrences of its type. For the TA corpus, the result was quite different in the way that the TA did not use *'appear'* at all in their corpus. The item *'suggest'* was also used much less as there were only 5 occurrences. The items which the TA preferred to use were, on the other hand, the items *'tend'* and *'seem'*, as 7 and 8 occurrences were found, while these items were found only 1-2 in the IA corpus.

On the contrary, *epistemic adjectives/adverbs* were found more in the IA corpus than in the TA one. A clear similarity in this part was that, if not omitted, the majority of

the HG items found (*e.g. approximately, likely, relatively*) occurred only 1-3 times each in both corpora. Nonetheless, the use of *'often'* far more frequently occurred in the IA corpus (13 occurrences) than in the TA one (3 occurrences). This difference is marked between the two corpora.

Table 4.40 Types of hedges (HG) in Move 2: Establishing a Niche

Hedges	TA Corpus	IA Corpus
Modal auxiliary verbs	3 (27.28%)	4 (40%)
Epistemic lexical verbs	4 (36.36%)	2 (20%)
Epistemic adjectives/adverbs	4 (36.36%)	4 (40%)
Total	**11 (100%)**	**10 (100%)**

In *Move 2*, the employment of HG among the three sub-types between the two corpora was not quite as interesting as in *Move 1*. The TA and IA seemed to minimize the numbers of items in the same way, only 11 occurrences for the TA corpus and 10 occurrences for the IA one. In addition, there were only 1-2 occurrences of each HG items (e.g. *could, may, seem*) within the sub-types.

Table 4.41 Types of hedges (HG) in Move 3: Presenting the Present Work

Hedges	TA Corpus	IA Corpus
Modal auxiliary verbs	4 (36.36%)	10 (40%)
Epistemic lexical verbs	1 (9.10%)	8 (32%)
Epistemic adjectives/adverbs	6 (54.54%)	7 (28%)
Total	**11 (100%)**	**25 (100%)**

The result of HG items in *Move 3* is different from the other two moves. The IA clearly employed far more HG (25 occurrences) than the TA (11 occurrences). As seen in Table 4.41, the numbers of HG items in each sub-type of the TA corpus were fewer than those of the IA. In detail, for *modal auxiliary verbs*, the emphasis was placed on the evident use of '*may*' in the IA corpus (7 occurrences). This stands contrary to the rest of HG of the same type which occurred only 1-2 times. Likewise, *Epistemic lexical verbs* of this very move also presented a similar trend. That is, although there were only a few each, the IA corpus had a variety of HG, up to 8 occurrences altogether, while the TA

corpus had only one HG. However, it was found that the use of *epistemic adjectives/adverbs* of both corpora was not different since, unlike other sub-types, they lacked the dominant use of HG. There were only 1-3 occurrences of each HG item.

4.3.2.2 Boosters (BT)

Frequently found in both TA and IA corpora, a diverse number of metadiscourse markers in terms of BT were used to express the academicians' force or confirmation in the utterences. The different forms of lexical patterns representing TS in this study include *modal auxiliary verbs, epistemic adjectives/ adverbs,* and *epistemic phrases/clauses* as shown in Table 4.42 below.

Table 4.42 List of boosters (BT) found in the RAIs of both corpora

Types of boosters	
Modal auxiliary verbs	have to, must, need, shall, will
Epistemic adjectives/adverbs	always, apparently, considerable, considerably, distinctive, dramatically, especially, evident, extensive, extensively, extremely, greatly, heavily, highly, inevitably, in fact, large/ largely, most, particularly, in particular, precisely, predominantly, obvious, obviously, of course, only, really, significant, significantly, so, specifically, strong, substantial, substantially, tremendously, undeniably, very
Epistemic phrases/clauses	the fact that…, it is clear that…, it is evident that…, I believe (that)…

Table 4.42 shows the three different sets of BT. The metadiscourse items comprise of *modal auxiliary verbs* (e. g. have to, must, need, will) *, epistemic adjectives/adverbs* (e.g. always, in fact, particularly, obviously, of course)*, and epistemic phrases/clauses* (e.g. the fact that, it is clear that). The density of these BT in the corpora is presented in the table below.

Table 4.43 Boosters (BT) in the RAIs per 1,000 words and per 10 sentences

	TA corpus	IA corpus
Booter Counts	(13,423/505) F=137	(13,511/404) F=131
No. of words per 1,000 words	10.21	9.70
No. of sentences per 10 sentences	2.71	3.24

In detail, there were altogether 168 BT items identified throughout both corpora. The number of their occurrences was very close, 137 found in the RAIs written by the TA corpus and 131 for the IA counterparts. Therefore, the density in the TA corpus (10.21/1,000 words) was slightly higher than that of the IA corpus (9.70/1,000 words). For the sentence density, the result was reverse because the fewer numbers of the IA corpus meant higher numbers of BT items. That is the TA corpus contained 2.71/10 sentences, while the IA corpus had 3.24/10 sentences. In short, the density of BT in the TA corpus was higher than that of the IA corpus in terms of word numbers, but it was lower in terms of sentence numbers.

In the following section, the BT found in each corpus are identified according to their different subtypes. The similarities and differences of the metadiscourse between the two corpora are revealed in the main rhetorical move (M1-M2-M3). The detail of their sub-types numbers within each main move can be traced in *Appendix B2.2*.

Table 4.44 Occurrences of boosters (BT) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	90 (65.69%)	68 (53.54%)
M2: Establishing a Niche	28 (20.44%)	27 (21.26%)
M3: Presenting the Present Work	19 (13.87%)	32 (25.20%)
Total	**137 (100%)**	**127 (100%)**

As can be seen in Table 4.44, the total number of BT items was found to be a little higher in the TA corpus than in the IA counterparts (137 vs. 127 occurrences). However, if considering each main move separately , both TA and IA employed most BT in *Move 1: Establishing a territory,* although the TA employed quite a lot more BT than the IA here (90 occurrences or 65.69% vs. 68 occurrences or 53.54%). In *Move 2:*

Indicating a gap, both groups of academicians used BT in almost the same proportion (28 occurrences or 20.44% vs. 27 occurrences or 21.26%). In *Move 3: Presenting the present work*, the tendency of using BT was opposite to *Move 1* when it was found that the IA tended to use quite a few more BT items (32 occurrences or 25.20%) than the TA (19 occurrences or 13.87%). However, these similar or different numbers of BT occurrences in each corpus may neither explain the in-depth similarities nor differences of BT employment by the TA and the IA. Therefore, the identification of the 3 sub-categories, namely *modal auxiliary verbs, epistemic adjectives/adverbs,* and *epistemic phrases/clauses* of BT within each specific rhetorical move will be illustrated separately in the following parts.

Table 4.45 Types of boosters (BT) in Move 1: Establishing a Territory

Boosters	TA Corpus	IA Corpus
Modal auxiliary verbs	25 (27.78%)	5 (7.35%)
Epistemic adjectives/adverbs	62 (68.89%)	61 (89.71%)
Epistemic phrases/clauses	3 (3.33%)	2 (2.94%)
Total	**90 (100%)**	**68 (100%)**

The TA clearly used far more BT than the IA in this move (90 vs. 68 occurrences). It is also clearly seen that, in both corpora, the majority of BT items used belong to the sub-category of epistemic adjectives/adverbs, which consisted of a variety of adjectives and adverbs emphasizing the force of proposition both certainty (e.g. clear, obvious, only, particularly) and degree (e.g. large, most, considerably). Interestingly, some adjectives and adverbs were especially found only or more in one corpus than the other. That is, the TA seemed to prefer to enforce their utterences using *always, especially, particularly,* and *significant/significantly*, whereas the IA tended to use *evident, highly,* and *considerable/considerably* more in their RAIs. For example,

- *(M1) ... the provision of English medium instruction classes has increased,* ***especially*** *in some specific fields.* (TA7)
- *(M1) ... The role of incidental Focus on Form (FonF) has recently received* ***considerable*** *attention in the field of second language acquisition (SLA)...(*IA20)

Another important point is that the TA tended to use a lot more *modal auxiliary verbs* than the IA since there were up to 25 occurrences (27.78%) found in the TA corpus, while there were merely 5 occurrences (7.35%) found in the IA one. In detail, while the IA used only *must* and *will* in a minimal number, the TA used all of the *modal auxiliary verbs*, especially *have to* and *need* which were rarely or never found in the IA corpus. For example,

- *(M1) ... In addition, reading is the basis of writing and thinking skills that students **need** to develop in order to prepare themselves for their future work...(TA21)*
- *(M1) Learners **have to** go through the senses listed for both words themselves. (TA24)*

Despite the similarities and differences above, it seems that *epistemic phrases/clauses* received very little attention since they were minimally found in this move, only 3 occurrences or 3.33% for the TA corpus and 2 occurrences or 2.94% for the IA one. In addition, sometimes, BT could be placed together in immediate positions to express a double emphasis on the force of utterrence. For example,

- *(M1) In learning another language, **it is evident that** we **have to** learn both grammatical correctness and idiomatic preference (TA4)*

Table 4.46 Types of boosters (BT) in Move 2: Establishing a Niche

Boosters	TA Corpus	IA Corpus
Modal auxiliary verbs	4 (14.29%)	2 (7.40%)
Epistemic adjectives/adverbs	22 (78.57%)	23 (85.19%)
Epistemic phrases/clauses	2 (7.14%)	2 (7.40%)
Total	**28 (100%)**	**27 (100%)**

In *Move 2*, although the numbers of BT items in each corpus were very close (28 vs. 27 occurrences), the *modal auxiliary verbs 'need'* and *'will'* were used more in the TA corpus than in the IA one (14.29% vs. 7.40%). This additionally emphasized the use of this type of BT in Move 2 of the TA corpus over the IA one when they want to establish a niche. For example,

- *(M2S1B) the students' existing levels of digital literacy and their disposition toward the use of online games for learning English **need** to be explored and investigated.* (TA3).
- *(M2S2) …it **will** be helpful to look into the way Thai speakers pronounce each sound.* (TA28)

Also, the sub-types of BT as *epistemic adjectives/adverbs* were actually close in numbers, that is, 22 occurrences or 78.57% for the TA corpus and 23 occurrences or 85.19% for the IA one. Similar to Move 1, the prominent use of adjectives/adverbs including *'especially'* for the TA corpus and *'considerable/considerably'* for the IA corpus were still pertinent in Move 2. For example,

- *(M2S1A) Studies of CS in the classroom in Thailand, **especially** the opinions regarding the usage of L1 in the language classroom, are still rare.* (TA7)
- *(M2S1A) A **considerable** number of studies have recently investigated… However, significant variations have been noted in the results of these studies…(*IA20)

Apart from the above mentioned, *epistemic phrases/clauses* were slightly gained attention like they were found in Move 1. There were only 2 occurrences (7.14% vs. 7.40%) found in each corpus.

Table 4.47 Types of boosters (BT) in Move 3: Presenting the Present Work

Boosters	TA Corpus	IA Corpus
Modal auxiliary verbs	10 (52.63%)	7 (21.88%)
Epistemic adjectives/adverbs	8 (42.11%)	24 (75%)
Epistemic phrases/clauses	1 (5.26%)	1 (3.16%)
Total	**19 (100%)**	**32 (100%)**

In this move, it was interestingly found that the IA employed far more BT items than the TA (32 vs. 19 occurrences). This was different from the previous moves where the TA tended to use more BT. From Table 4.47, the emphasis was still on the use of *modal auxiliary verbs* for the TA when, out of 19 occurrences, there were 10 occurrences or 52.63% of the verbs already. For the IA, although the use of *modal auxiliary verbs*

was the minority, with only 7 occurrences or 21.88% found, the similarity was that both corpora concentrated on the use of 'will' as the main marker since the announcing statement of the present work is important for this very move. Yet, in this similarity, there were still major differences in the way that the TA seemed to use 'will' to state the value of the present study (M3S6). For example,

- *(M3S6) It is hoped that the results of this study **will** provide EFL learners with some helpful guidance in order to minimize the number of collocational errors in second language production.* (TA4)

This was different from the use of 'will' by the IA because all of them were found in *M3S7 Outlining the structure of the paper.* For example,

- *(M3S7) Below, I **will** first review two competing theoretical positions— the Critical Period Hypothesis…*

Another main difference between the two corpora was the occurrences of *epistemic adjectives/adverbs* and their specific items used. That is, the IA produced a lot more frequent BT items in this sub-type than the TA (24 occurrences or 75% vs. 8 occurrences 42.11%). Besides, while the TA employed each BT item only 1-2 times, the IA seemed to reinforce their propositions by placing the emphasis on the BT items 'in particular' and 'specifically' as there were 4 and 7 occurrences found. For example,

- ***Specifically**, this article explores the following three research questions…*(IA16)

For the epistemic phrases/clauses, they were still only marginally used in this move as only one occurrence was found in each corpus.

4.3.2.3 Attitude markers (AM)

Rather than being epistemic, the AM items found in the corpora displayed the academicians' affective propositions which projected their judgment or evaluation of importance, value, agreement, surprise, etc. This marking of AM was frequently found in the corpora, allowing both groups of academicians to express their stance in academic-oriented positions. Even though the AM items could be generated in a wide range of ways, like attitude verbs or phrases, this study specifically focuses on *attitudinal adjectives and adverbs* which were explicitly spotted and analyzed. That the researcher

did not separate the adverbs from adjectives is because they were minimally found throughout the corpora, so it is better to group them together. Since AM are considered a fuzzy entity, the analysis of this metadiscoursal marker was needed to be done mainly through manual identification. Some adjectives or adverbs that did not show attitudes, but situational facts, were excluded. From the analysis, a variety of *attitudinal adjectives and adverbs* are presented in Table 4.49 below.

Table 4.48 List of attitude marker (AM) found in the RAIs of both corpora

Attitude markers	
Attitudinal adjectives and adverbs	appropriate, beneficial, challenging, common, complex, complicated, controversial, core, critical, crucial, daunting, difficult, different, dominate, easily, elusive, essential, essentially, far-reaching, good, greater, harder, helpful, helpfully, holistic, important, importantly, inadequate, inextricably, insensitive, interesting, key, little, limited, main, major, multifaceted, necessary, necessarily, notorious, novel, overlooked, positive, positively, potential, prime, prolific, prominent, reliable, rigorous, salient, sensitive, serious, still, strong, surprising, underexplored, underscored, unexplored, unfortunately, unique, unknown, unsurprising, useful, vital, well, well-known, worth

The multiple AM in the above table were identified throughout the corpora. Nonetheless, their density in each corpus was different. The following table reveals the occurrences of the AM items in 1,000 words and 10 sentences.

Table 4.49 Attitude markers (AM) in the RAIs per 1,000 words and per 10 sentences

Transition Counts	TA corpus (13,423 words/505 sentences) F= 159	IA corpus (13,511 words/404 sentences) F= 131
No. of words per 1,000 words	11.84	9.69
No. of sentences per 10 sentences	3.14	3.24

As seen in Table 4.49, the frequencies (F) of the AM found in the TA corpus was higher than those found in the IA corpus (159 vs. 131 occurrences). Based on the total

number of 13,423 words and 505 sentences in the TA corpus and 13,511 words and 404 sentences in the IA corpus, the density of AM in each corpus per 1,000 words is therefore 11.84 for the TA corpus and 9.69 for the IA corpus. For the density per 10 sentences, it was found that the numbers of the AM in the IA corpus were a little higher than those found in the TA (3.24 vs. 3.14 occurrences). This is because, although the production of the AM was higher in the TA corpus, there were more sentences the IA corpus. This resulted in a little more density of the AM in the IA corpus. To further reveal the common similarities and differences between the two groups of academicians in each main rhetorical move (M1- M2- M3), the entire AM in the corpora are identified in the following table. For the detailed distribution of AM within each main move, please see Appendix B2.3.

Table 4.50 Occurrences of attitude markers (AM) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	115 (72.33%)	73 (55.72%)
M2: Establishing a Niche	28 (17.61%)	26 (19.85%)
M3: Presenting the Present Work	16 (10.06%)	32 (24.43%)
Total	**159 (100%)**	**131 (100%)**

Overall, there were higher numbers of AM in the TA corpus than its IA counterparts. However, when considering the AM in each move, the TA produced a lot more AM than those written by the IA (115 vs. 73 occurrences) in *Move 1: Establishing a territory*. The TA also produced more AM in *Move 2: Indicating a gap*, but they were just slightly more (28 vs. 26 occurrences). So, there was no significant difference in terms of numbers in this move. Surprisingly, in *Move 3: Presenting the present work*, the numbers of AM turned out to be in different directions when the IA used twice as many AM (32 occurrences) as those found in the TA corpus (16 occurrences). In particular, the result shows that the TA suggests that the TA favorably expressed their attitudes through the use of AM items in Move 1, when compared to the IA who relatively produced fewer items in the same move. The production of the AM items was more or less the same in both two corpora. On the contrary, the IA clearly preferred to express more attitudes in

Move 3 than the TA. In the next tables, the identification of the AM items discovered within each particular rhetorical move is shown.

Table 4.51 Attitude makers (AM) in Move 1: Establishing a Territory

Attitude markers	TA Corpus	IA Corpus
Attitudinal adjectives and adverbs	115 (100%)	73 (100%)

Apart from employing the greater number of AM, the TA's choice of AM in *Move 1* seemed to be similar and different from that of the IA in some interesting aspects. Although most of the AM items in both corpora were found in very limited numbers, mostly 1-2 each, some items occurred more frequently. The AM items of the same meaning, including 'important' and 'key', appeared repeatedly and played a significant role in both corpora. They were altogether found in up to 22 occurrences in the TA corpus and 16 occurrences in the IA one. This shows that both groups of academicians tended to link the concept of 'importance' to their relevant topics of study in their opening remarks before supporting their arguments by citing a number evidentials (ET) in their RAIs to establish a territory. For example,

- *(M1) Idioms are an **important** element in language use as most English speakers utter 10-20 million metaphors/idioms during their lifetime…(TA22).*

- *(M1) Academic writing is considered one of the most **important** skills for students who have to write in academic contexts. (TA30)*

- *(M1) Reading is a **key** source of second and foreign language (L2) input for adult language learners. (IA2)*

- *(M1) Mastery of foreign languages is becoming increasingly **important** in the modern world. (IA30)*

In the same vein, the AM items, namely 'complex' and 'difficult', occurred quite frequently (13 occurrences in the TA corpus and 5 in the IA one). Generally, they were used together or interchangeably with the AM 'important' to attract readers' attention to the main topic of their studies in the beginning of the RAIs. For example,

- *It is undeniably **difficult** for EFL learners to perform native-like writing. (TA4)*

- *Despite this apparently simple definition, <u>speech fluency</u> is a **complex** phenomenon that interacts with other aspects of performance…(*IA12)

Table 4.52 Attitude makers (AM) in Move 2: Establishing a Niche

Attitude markers	TA Corpus	IA Corpus
Attitudinal adjectives and adverbs	28 (100%)	26 (100%)

In this move, the number of AM produced by both groups was approximately equal to each other. To establish a gap, it was noticeable that the popular AM items, found with 5-6 occurrences in each corpus, and used to refer to other previous studies, were 'little' and 'limited'. For example,

- *(M2S1A) Even though much has been also said about the relationship of student attitude to SLA, <u>**little**</u> attention was paid to the vital role of these attitudes…*(TA9)
- *(M2S1A) The amount of research on practical applications designed to enhance learner motivation however, has been extremely <u>**limited**</u>.* (IA3)

However, it was interesting to find that the TA tended to use more varieties of AM items than the IA to reach the same communicative purpose of establishing a niche. These included 'unexplored', 'underexplored', 'useful', 'worth'

- *(M2S1A) However, research in L2 WTC in Thailand has been <u>**underexplored**</u>.* (TA1)
- *(M2S1B) Therefore, it is <u>**worth**</u> exploring the impact of the explicit teaching of CSs on Thai engineering undergraduates in order to contribute to the research in the field.* (TA14)
- *(M2S2) I have an opinion that it should be <u>**useful**</u> to know what have impacts on Thai students' achievement in learning English as a foreign language and what can sustain their interest in continuing learning English.* (TA10)

As a result, it might be said that the TA preferred to employ the AM explicitly to create the steps to inform readers what is neglected in existing literature and needs to be further studied. This is one approach for the TA to justify the focused topic of their studies.

Table 4.53 Attitude markers (AM) in Move 3: Presenting the Present Work

Attitude markers	TA Corpus	IA Corpus
Attitudinal adjectives and adverbs	16 (100%)	32 (100%)

The result shows that the IA corpus had more than twice the number of the AM which were found in the TA corpus. This clear difference in numbers demonstrated more attitudinal expressions of the IA when they wanted to present their current studies. Together, despite not being found in most of the RAIs, one outstanding characteristic of the AM production in the IA corpus is expressing favorable attitudes towards theories, methodologies, or values of their own studies explicitly. This characteristic was noticably omitted in the TA counterparts. The examples are such as,

- *(M3S1) ...this study uses two **prominent** cognitive motivation theories to learning (self-efficacy and attribution) to examine how they respectively and collectively relate to Korean secondary-level learners' EFL achievements.* (IA6)

- *(M3S4) Methodologically **novel** aspects of this study are its attention to both explicit word knowledge...and tacit word knowledge...and the use of mixed-effects modeling...*(IA2)

- *(M3S6) Access to classroom video-recording provides the **unique** opportunity to see learners as they participate in classrooms, enriching previous research on learners...* (IA29)

4.3.2.4 Engagement markers (EG)

Positioning readers as discourse participants in a written text could be done through using EG to address them directly in the contextualized text. A larger propotion of the markers was spotted in the TA corpus than in their IA counterparts. From the frequency count, it was found overall that the EG were more frequently found in the TA corpus when compared to the IA corpus (26 vs. 16 occurrences). Also, results indicated the minimal use of EG in the corpora as we can see with the detected EM items in their sub-categories below.

Table 4.54 List of engagement markers (EG) found in the RAIs of both corpora

Types of engagement markers	
reader pronouns	we, our, us
personal asides	-
appeals to shared knowledge	…have long been viewed …have been widely recognized It is known that… It has been considered …also known as… etc.
directives	-
questions	…but are there…gains from these experiences?

The above table shows the number of EG items belonging to the different sub-categories. With the five sub-categories of EG, it was found that *reader pronouns* and *questions* were found in a small proportion, 1-5 occurrences in each corpus. Personal asides and directives were omitted in the corpora. However, among the five, *appeals to shared knowledge* seemed to be used to a certain extent since they exclusively occurred in the TA corpus up to 19 occurrences and 9 occurrences in the IA's. From the total number of occurrences, this group of metadiscourse was outstandingly produced in the corpora. They were normally signaled by some lexical items such as long, commonly, considered, known, and so forth. To better understand the density of these EM in both corpora, the data is presented below.

Table 4.55 Engagement markers (EG) in the RAIs per 1,000 words and per 10 sentences

Transition Counts	TA corpus (13,423 words/505 sentences) F= 26	IA corpus (13,511 words/404 sentences) F= 16
No. of words per 1.000 words	1.94	1.18
No. of sentences per 10 sentences	0.51	0.39

The total number of EG items altogether identified throughout both corpora was 42 items. The occurrences were 26 for the TA corpus and 16 for the IA one. Therefore,

the density in the TA corpus was 1.94/1,000 words, while 1.18/1,000 words were found in the IA corpus. For the sentence density, it was found that the TA corpus contained 0.51/10 sentences. The IA corpus had smaller numbers of EG when compared to its counterparts since 0.39/10 sentences were found. Overall, the density of EG in the TA corpus was higher than that of the IA corpus. Below, the EG found in the corpora are identified according to each main rhetorical move (M1- M2- M3). The detailed distribution of EG in their sub-types in terms of numbers within each main move is provided in Appendix B2.4.

Table 4.56 Occurrences of engagement markers (EG) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	26 (100%)	15 (93.75%)
M2: Establishing a Niche	-	-
M3: Presenting the Present Work	-	1 (6.25%)
Total	**26 (100%)**	**16 (100%)**

In comparison, more EG items were found in the TA corpus than the IA one (26 vs. 16 occurrences). Besides this, almost all of the items were found only in Move 1 of the two corpora, that is, 100% and 93.75% within its corpus respectively. On the other hand, there were no EG found in *Move 2,* and only one EG item found in *Move 3,* thereby showing no significance to highlight. The following analysis thus focuses on the identification of EG items in *Move 1: Establishing a territory*, where the important role of the metadiscourse was clearly seen.

Table 4.57 Types of engagement markers (EG) in Move 1: Establishing a Territory

Transitions	TA Corpus	IA Corpus
Reader pronouns	5 (19.23%)	4 (26.66%)
Appeals to shared knowledge	21 (80.77%)	10 (66.66%)
Questions	-	1 (6.67%)
Total	**26 (100%)**	**15 (100%)**

As shown in Table 4.57, the most obvious EG items in both corpora were *appeals to shared knowledge,* which were intended to refer to readers as particupants who have similar or familiar shared background knowledge established within the aim and scope

of the study. The TA produced a lot more appeals to shared knowledge than the IA as the items were found with up to 21 occurrences or 80.77% in the TA corpus while only 10 occurrences or 66.66% were identified in the IA corpus. Interestingly, the main structure of sentences indicating this sub-type of markers found in both corpora were mostly in the form of the present perfect passive voice. For example,

- *(M1) Student exchange programs **have been widely recognized** as one of the most effective programs normally hosted by educational institutions… (*TA6)
- *(M1) **It is widely accepted that**, everything else being equal, more motivated learners would be more successful at learning the second/foreign language than less motivated learners…* (IA3)

Reader pronouns, not frequently found (19.23% in the TA corpus and 26.66% in the IA counterparts), were also used as a strategy to involve the target readers into the text. They usually stayed together in the same sentence. Samples drawn from the corpora were such as,

- *(M1) …as language teachers, **we** should pay attention to **our** students' cognitive and affective natures…(*TA12)
- *(M1) Because writing is so natural for **us**, **we** rarely think of the role it plays in mediating **our** cognition.* (IA28)

4.3.2.5 Self-mentions (SM)

The analysis result revealed the fact that the existence in explicitly referring to academicians themselves through the use of SM items was, indeed, a conscious selection made between the TA and IA to show a different approach in their writing. According to Hyland's model of metadiscourse, with the assistance of the concordencing program and manual identification, different sub-types of SM were drawn out as follows.

Table 4.58 List of self-mentions (SM) found in the RAIs of both corpora

Types of self-mentions	
Noun	(the) researcher(s)
First-person pronouns	I, we, us
Possessive adjectives	my, our

The purpose of the above six SM items was to project an impression of the academicians themselves, and they were found in different proportion within different moves. From the table above, these SM items could be classified into the three sub-types which include a specific *noun*, *first-person pronouns*, and *possessive adjectives*. The only specific noun used as SM was *(the) researcher(s)*, which referred to the academic writers in the corpora. Similarly, the first-person pronouns found were *I, we,* and *us*, together with the possessive adjectives: *my* and *our*. Apart from the list of SM items, the density of these in the corpora is described in the following.

Table 4.59 Self-mentions (SM) in the RAIs per 1,000 words and per 10 sentences

Self-mention Counts	TA corpus (13,423 words/505 sentences) F= 10	IA corpus (13,511 words/404 sentences) F= 44
No. of words per 1,000 words	0.74	3.26
No. of sentences per 10 sentences	0.20	1.09

As seen in Table 4.59, the total number of SM items found was 54 occurrences altogether, the majority of which, or 44 items, belonged to the IA corpus, while only 10 items belonged to the TA corpus. This clearly indicated the more frequent production of SM among the IA than among work of the TA. In detail, the density of SM in the TA corpus was 0.74/1,000 words, while 3.26/1,000 words were found in the IA corpus. For the density in terms of sentences, it was found that the TA corpus contained only 0.20/10 sentences, whereas the greater density of 1.09/10 sentences was spotted in the IA corpus. To better identify the SM used in both corpora, the classification of their sub-types in each main rhetorical move (M1-M2-M3) is presented in the following table. For the detailed distribution of the SM numbers in their sub-types within each main move, the researcher has provided it in Appendix B1.5.

Table 4.60 Occurrences of self-mentions (SM) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	2 (20%)	4 (9.10%)
M2: Establishing a Niche	4 (40%)	2 (4.54%)
M3: Presenting the Present Work	4 (40%)	38 (86.36%)
Total	**10 (100%)**	**44 (100%)**

As illustrated by the total number for each corpus, there were much higher numbers of SM found in the IA corpus than those of the TA's (44 vs. 10 occurrences). It was noticeable that the majority of SM items resided in *Move 3: Presenting the present work* in the IA corpus (38 occurrences or 86.36%), where its other moves had just a few items. For the TA corpus, the TA seemed to only sometimes employ the SM since there were only 2-4 occurrences in each of its moves. To more clearly understand the SM items in each move of rhetorical structures, their sub-types are identified in the following.

Table 4.61 Types of self-mentions (SM) in Move 1: Establishing a Territory

Self-mentions	TA Corpus	IA Corpus
Noun	2 (100%)	-
First-person pronouns	-	2 (50%)
Possessive adjectives	-	2 (50%)
Total	**2 (100%)**	**4 (100%)**

As shown in Table 4.61, higher numbers of SM were found in the IA corpus than in the TA one (4 vs. 2 occurrences). Here, the TA employed only the sub-type *noun 'the researcher(s)'* in this move to refer to his/herself when establishing a territory in the study. Conversely, the IA omitted the noun, but used the first-person pronoun *'I'* and possessive adjective *'us'* to indicate selves instead. For example,

- *(M1)* ***The researchers*** *believe that this is a possible area which could have an immediate remedy to help improve reading comprehension.* (TA16)
- *(M1)* ***I*** *call this explanation the "representational deficit account" (RDA).* (IA26)

Table 4.62 Types of self-mentions (SM) in Move 2: Establishing a Niche

Self-mentions	TA Corpus	IA Corpus
Noun	-	-
First-person pronouns	3 (75%)	-
Possessive adjectives	1 (25%)	2 (100%)
Total	**4 (100%)**	**2 (100%)**

Although found in small numbers in both corpora, the occurrences of SM in *Move 2* were different from those of *Move 1* in the way that the TA used more SM than the IA, (4 vs.2 occurrences), especially the *first-person pronoun 'I'*. The IA did not employ first-

person pronouns at all in this move but used the *possessive adjective 'our'* to build up a niche. The examples are below.

- *(M2S1B) As an English teacher, **I** believe it is important to explore and learn about their English and vocabulary competenc….* (TA5)
- *(M2S1A) However, **our** reading of the relevant literature suggests that not much research has aimed at investigating the effects of pedagogic intervention… .* (IA12)

Table 4.63 Types of self-mentions (SM) in Move 3: Presenting the Present Work

Self-mentions	TA Corpus	IA Corpus
Noun	1 (25%)	-
First-person pronouns	3 (75%)	23 (60.53%)
Possessive adjectives	-	15 (39.47%)
Total	**4 (100%)**	**38 (100%)**

Here, it was interestingly found that SM items in the IA corpus were used extensively in *Move 3* (38 occurrences) with the emphasis on *first-person pronouns* (23 occurrences or 60.53%) and *possessive adjectives* (15 occurrences 39.47%), while the TA still employed the metadiscourse items in a small proportion as only 4 occurrences were found in *Move 1* and *2*. This indicated the larger number of SM in the side of the IA corpus over the TA counterparts in *Move 3*. Their emphasis was particularly on the use of *first-person pronouns 'we'* and *'our'* in several move units. For example,

- *(M3S1) In our study, **we** developed a questionnaire to assess the relationship between motivational orientations… .* (IA14)
- *(M3S5) Furthermore, **our** preliminary observations suggested that personality factors also play a role in learning… .* (IA29)
- *(M3S7) Further, **we** investigate whether these relationships differ as a function of home language background by comparing four groups of students:* (IA21)

Conversely, the TA limited the use of SM items *'the researcher(s)', 'I',* and *'we'* only in M3S1. For example,

- *(M3S1) … in the present study, **the researcher** designed a corpus- based instructional approach specifically for low-proficiency students…(*TA30)

In addition, it was noticeably seen that when the TA restrictedly used only the SM *'the researcher(s)'*, *'I'*, *'we'* in small numbers, the IA tended to employ a lot more SM items with the addition of *'us'* and *'our'*. For example,

- *(M3S6) The video data allow __us__ to address how it is that learners with little experience in formal educational settings learn… .* (IA29)

4.3.3 Metadiscourse Nouns (MN)

In this study, the rhetorical feature of MN (noun + post-nominal clause) referring to any abstract nouns in association with contextual lexicalization was also investigated within the primary move-based construction (M1-M2-M3). Using the illustration of MN by Jiang & Hyland (2016, p. 24) as a guideline in classification, the researcher came up with the alphabetical list of MN items extracted from the corpora in the following table.

Table 4.64 List of metadiscourse nouns (MN) found in the RAIs of both corpora

Types of metadiscourse nouns	
Entity	action, assumption, belief, claim, concern, doubt, evidence, fact, hope, hypothesis, idea, phenomenon, premise, study, view
Attribute	context, extent, way
Relation	relationship

It was found that the MN are normally attached by relative markers including *what*, *how*, *that*, and *(in) which* as they are spotted in the middle position. Then, these relative markers are immediately followed by a sentence functioning as complement information, which helps modify the actual meaning of the target noun. This allows writers to guide readers to see an important detail or further information closely related to such a noun. As a result, writers can efficiently manage coherence in text.

One similarity of the two corpora in this study was that the majority of MN patterns found was *noun + post-nominal clause* with relative maker 'that', while the least found pattern of MN was *noun + post-nominal clause* with relative marker 'how'. However, the extent to which the TA and IA employed MN in their RAIs was largely different owing to the fact that the TA clearly used far fewer MN items than those

identified in the IA corpus (10 vs 31 occurrences). To describe the density in terms of words and sentences, the information is presented in the table below.

Table 4.65 Metadiscourse nouns (MN) in the RAIs per 1,000 words and per 10 sentences

Metadiscourse Noun Counts	TA corpus (13,423 words/505 sentences) F= 10	IA corpus (13,511 words/404 sentences) F= 31
No. of words per 1,000 words	0.74	2.29
No. of sentences per 10 sentences	0.20	0.77

With the occurrences of 41 MN items in the corpora, Table 4.65 reveals the density of MN in each corpus per 1,000 words and per 10 sentences from the total of 13,423 words and 505 sentences in the TA corpus and the total of 13,511 words and 404 sentences in the IA corpus. Throughout both corpora, there were altogether 41 items of the identified noun + post-nominal clause. The occurrences were 10 for the TA corpus and 31 for its IA counterparts. The density in the TA corpus was thus 0.74/1,000 words, while 2.29/ 1,000 words were discovered in the IA corpus. For the sentence density, it was found that the TA corpus contained only 0.20/10 sentences. The IA corpus, on the other hand, contained higher numbers of MN as 0.77/ 10 sentences were found. The following table illustrates the identification of MN items according to each rhetorical move structure to reveal either common similarities or differences between the groups of academicians. The detailed distribution of these in terms of numbers within each main rhetorical move is provided in Appendix B3.

Table 4.66 Occurrences of metadiscourse nouns (MN) in each rhetorical move structure

Rhetorical move structures	TA corpus	IA corpus
M1: Establishing a Territory	3 (30%)	18 (58.06%)
M2: Establishing a Niche	3 (30%)	4 (12.90%)
M3: Presenting the Present Work	4 (60%)	9 (29.03%)
Total	**10 (100%)**	**31 (100%)**

From the table, the greater numbers of MN in every rhetorical move were found in the IA corpus. Compared to the TA, the IA apparently put emphasis on the use of MN in *Move1: Establishing a territory* since 18 occurrences, or 58.06%, were found, while the MN production in the same move of the TA corpus appeared in only 3 occurrences,

or 30%. The TA also produced only small numbers of MN items in Move 2 and Move 3 since merely 3 and 4 occurrences of them were drawn out respectively. Similar to the TA, the IA also produced fewer numbers of MN items in Move 2 when only 4 occurrences were found. Yet, the 9 occurrences of the MN items found in *Move 3* were twice as many as those found in the TA corpus. This suggested that, when establishing a territory in Move 1 and Move 3, the IA alternatively employed a lot more MN items to develop cohesive and coherent information, as well as seek to raise readers' awareness of their arguments through the MN, than the TA. To more clearly understand the MN items in each rhetorical move structure, their sub-types are drawn out in the following tables.

Table 4.67 Types of metadiscourse (MN) in Move 1: Establishing a Territory

Metadiscourse nouns	TA Corpus	IA Corpus
Entity	2 (66.66%)	13 (72.22%)
Attribute	1 (33.33%)	5 (27.78%)
Relation	-	-
Total	**3 (100%)**	**18 (100%)**

As shown in Table 4.67, higher numbers of MN were found in the IA corpus than in the TA one (18 vs. 3 occurrences). The emphasis of the MN type in terms of entity and attribute was found respectively. With 1-3 frequencies, the entity MN items found were nouns including action, assumption, belief, claim, evidence, hope, idea, phenomenon, premise and study. This greater trace of the MN especially found in the IA corpus indicates the intention to encode some critical subject matter and evaluations which are essential to generate academic work of the field. For example,

- *(M1) ...in an extensive analysis of international leadership literature by Leithwood, Harris, and Hopkins (2008)...they put forward a number of claims about successful school leadership, including* **the claim** *that successful "school leadership is second only to classroom teaching as an influence on pupil learning"* (IA22)

- *(M1) The native speaker fallacy (Phillipson, 1992) —* **the belief** *that native speakers are ideal teachers — has resulted in nonnative-English-speaking*

teachers NNESTs) being considered second‑ class citizens in the field of TESOL…(IA27)

Here, the writers could use these entities to support their arguments without having to put forward their own assessment of possibility, which were, of course, less convincing than popular notions of other previous scholars. They could use these existing notions provided by Leithwood, Harris, and Hopkins (IA22) as well as Phillipson (IA27) to establish a territory before pointing to any possible problem of such belief in the next propositions.

Table 4.68 Types of metadiscourse (MN) in Move 2: Establishing a Niche

Metadiscourse nouns	TA Corpus	IA Corpus
Entity	1 (33.33%)	2 (50%)
Attribute	2 (66.67%)	2 (50%)
Relation	-	-
Total	**3 (100%)**	**4 (100%)**

Although found in small numbers, the use of MN as either an entity or attribute in this move indicated their clear function in indicating a gap in research studies. For example,

- *(M2S1A) Despite the **evidence** that PBL promotes cognitive and metacognitive learning …, **little is known about** how it affects the English language learning of Thai speakers, …(TA25)*
- *(M2S2) … a more nuanced understanding of children's cognate knowledge will help identify **ways** that bilingual children leverage word knowledge across languages.*

Table 4.69 Types of metadiscourse (MN) in Move 3: Presenting the Present Work

Metadiscourse nouns	TA Corpus	IA Corpus
Entity	3 (66.67%)	4 (44.44%)
Attribute	1 (33.33%)	4 (44.44%)
Relation	-	1 (11.12%)
Total	**4 (100%)**	**9 (100%)**

In this third move, it was interesting to find that twice as many MN items were found in the IA corpus. To some extent, this indicated the rather important role of MN in the IA corpus over the TA corpus as they helped presenting the current work of the international academicians in a more detailed manner. For instance,

- *(M3S1) ...and thus an investigation of /t, d/ deletion for L2 learners of English would focus on the **<u>extent</u>** <u>to which learners acquire nativelike variation patterns for /t, d/ deletion</u>.* (IA11)

- *(M3S1) The present study focuses on the **<u>way</u>** <u>in which raters of timed essays assess lexis</u>.* (IA25).

In this respect, the examples of MN attribute the states or circumstances of the thing carried out in a process of manner. That is, to examine how much learners acquire the native speaker's phonological system (IA11) or to see how raters assess lexis (IA25), it is needed to check the process in which they had been performing and the frequency of the target items which occurred in the studies.

There was only one example of MN indicating the sub-type of relation, but it also served its function well in supporting this very move. That is,

- *(M3S1) The aim of the current study was to investigate how L1 and L2 speakers' fluency differs in terms of Segalowitz's (2010) constructs of utterance vis-`a-vis cognitive fluency, a **<u>relationship</u>** <u>that only a few studies to date have investigated by measuring subprocesses of speech production</u>.* (IA18).

The noun 'relationship' here provided readers with a well-grounded reason that there had been a few studies paying attention to the topic being researched, thereby suggesting that this study was interesting and should be looked at.

Hence, it was likely that all of the MN in the examples above could alternatively be used among the IA to indicate the objectives of studies in *Move 3: presenting the present work* rather than being found in its TA counterparts. To better understand the use of MN in this study, the identification of MN features within the rhetorical moves will be explained in the aspects of their interactive functions and interactional dimension in the discussion section.

4.4 Discussion of Metadiscourse Feature Results

In the previous section, the metadiscourse items including: 1) interactive metadiscourse: transitions, frame markers, endophoric markers, evidentials, code glosses 2) interactional metadiscourse: hedges, boosters, attitude markers, self mentions, engagement markers and 3) metadiscourse nouns, were analytically examined through a focus on the primary rhetorical move patterns. Rather than showing the similarlities, the findings in this second phase demonstrated the different nature of metadiscourse features embedded in the macro-textual organization (rhetorical move patterns M1-M2-M3) within the RAIs of both TA and IA corpora.

That is, with regard to the second research questions "what are the similarities and differences in the use of metadiscourse found within the macro-textual organization in the two sets of English RAIs?", the results rather revealed the different sociolingustic reality of how the TA and IA produce their metadiscourse features within each move structure (M1-M2-M3) in their RAIs. The evidence could be seen through their occurrences (density) and varations in metadiscourse practices as van Dijk et al. (1997) maintained that the influence of human societies in terms of socio-cultural norms could be recognized through communicative discourse based on each speech community which tends to have its own ways of linguistic conventions.

The main findings showed that both groups of Thai and international academicians clearly disclosed their unique identities in writing approaches when they utilized the different proportions and diverse sub-categories of metadiscourse features within each main rhetorical move structure. To illustrate, in academic writing, the way writers guide or engage readers is the same way as when they construct their identity. As Ivanič (1998) stated, "Writing is not just about conveying content but also about the representation of self" (p.373). In this case, identity could be conveyed from writers to readers via systematically written discourse. Similarly, in Matsuda's (2015) concept of the complex phenomenon of identity in academic written discourse, he posited that writing does not merely narrate the content, but it also conveys the role of authorial self or identity of the writer. All elements of scholarly language use, particularly various kinds of linguistic markers and discourse features, including a wide range of cohesive devices and interpersonal features, play a signicant role in shaping and revealing writers'

identity. All of these lead to the persuasive effect while engaging the readers through the text and relate a text to its own established context. In consequence, the identity tends to position writers based on the demographic information of writers' individual characteristics and earlier shared identity which have long been developed through the social interaction and various elements of textual features within their community of any particular context (Ivanič, 1995, 1998; Matsuda & Tardy, 2007; Matsuda, 2015). This emphasizes the fact that, apart from the cognitive factor in terms of linguistic competence, the socio-cultural factor as well as linguistic environment also play indispensible parts of identity construction in academic writing (Spivey,1997; Canagarajah, 2002).

Hence, the present study revealed the different macro-textual organization between the two corpora which was further governed by different *discoursal identities* based on their choices of significant metadiscourse features. The most salient approaches that could be noticed were not only the different proportions of metadiscourse items found in each corpus, but their role in discoursal construction that was highly distinctive in each main rhetorical move structure (M1-M2-M3). The TA and IA displayed their diverse selection of salient academic rhetorics to allow their readers to participate and engage in the ideational research article introduction sections. This was in line with Hyland's (1998, 2005, 2009) studies indicating that academic writers create authority, integrity, and credibility as well as effective persuasion through their own rhetorical choices. Therefore, different groups of academicians in different regions are most likely to possess and secure the similar discoursal construction of identity through the use of metadiascoursal resources within their disciplinary community.

In this current study, the employed metadiscourse features, as reported earlier, were varied across the two academician groups. The features, including interactive and interactional items as well as metadiscourse nouns, were mostly imbalanced both in terms of their density and different sub-types within each rhetorical move. The IA clearly placed emphasis on the production of endophoric markers (EM), evidentials (ET), code glosses (CG), Self-mentions (SM), and metadiscourse nouns (MN), while the TA, by contrast, seemed to focus more on the use of metadiscourse in terms of transitions (TS), attitude markers (AM), and engagement markers (EG).

To specify the two corpora variations in metadiscourse features, the occurrences of transitions (TS) in both corpora, for example, indicated that the TA produced a lot more frequent TS items with a clear emphasis on the inferential TS, especially in the main *Move 1: Establishing a Territory*. This suggested that the Thai academicians cared to present their knowledge claims with the explicitly linguistic items allowing them to create the text flow with links between sentences. On the contrary, this was largely absent in the RAIs written by the IA who tended to signal the connection between sentences with implicitly logical consequences and inferences between them. This difference may possibly be explained by the notion of vagueness strategically used in academic writing (Myers, 1996) when writers prefer to negotiate the specificity of meaning in text boundaries if they wish to concisely minimize words, and this can yield more effective or interesting effects when readers coordinate with writers when trying to comprehend the text meaning. This rhetorical strategy thus avoids the use of specific form like the TS that could actually be substituted by a range of implicit referents between propositions.

In the case of evidentials (ET), for instance, despite the fact that the use of ET items dominated all other kinds of metadiscourse categories in both corpora, their far more frequencies in the IA corpus over the TA (489 vs 327 occurrences) in every main move (M1-M2-M3) reflected the more academic sophistication of the international writers to engage readers with the relevant, acknowledged theories and framework than the Thai counterparts. This could help present the IA as competent academicians who had earnestly immersed in their discipline, while at the same time establishing the credible writer identity in a research tradition.

Another interesting point is that, in *Move 1* where the ET were most extensively found, the IA mainly produced the substantial *non-integral* citations like *source* to assert their claims using their own words. That means they would rather put forward the paraphrased ideas before citing other scholars' name(s) and year(s) in a parenthesis (XXX, year) at the end of sentences. The TA, on the other hand, preferred to also back up their academic credentials by employing many *integral* citations 'verb-controlling' which starts with the names of other scholars before stating the claim "XXX' (year) study" with either factive verbs (e.g. point out) or non-factive verbs (e.g. state, indicate, suggest) or with the popular naming citation pattern like "According to…". For example,

- *(M1) **Ye and Jiang (2014) state** the importance of parental involvement as follows:…(TA26).*
- *(M1) **According to Douglas (2000)**, English for tourism is considered to be one area of language for specific purposes (ESP) (TA18).*

This fact of either higher or lower number of integral and non‑integral citation practices among both groups of academicians could be explained byCharles's (2006) view point that these selections tend to be complicatedly based on citation convention in a particular community and individual academic input. This may thus show the fact that the TA preferred to stress the importance of other scholars in the subject position or the beginning of sentences with the integral citation has some kind of indication for their citation habit. They may wish to strongly support their claims by putting names of other well‑known authors ahead by simply summarizing the source text and integrating it into their study to create a research space. However, if reporting on such given citation like this is done in a large volume, according to Thompson and Ye (1991), it may not be considered as good citation because a scholar will probably only paraphrase the idea but miss a chance to evaluate the cited text or even misinterpret its purpose while associating the idea with his or her own thought. Doing so rather than interpreting, discussing or evaluating the cited information may thus lead to an unfavorable citation style in competitive publication judged by the international academic arena which prefers the projection of voice as well as the argumentative nature of academicians' self-promotion rather than the descriptive one.

Additionally, while the IA corpus contained quite a lot of *'reference'* with 48 occurrences altogether in all main moves, the scarce use of it in the TS corpus, only 2 occurrences in *Move 2*, clearly suggested that the Thai academicians were not familiar with this sub‑type of academic citation, which is literally intended to guide readers to relevant information from other sources by the use of the directive *'see'*. This emphasized the writing convention influencing citation practices in Thai national journals in the way that when the previous research articles did not sufficiently display this kind of citation, it is less noticeable and then usually omitted as a result. Besides this, the much fewer ET items in Move 3 of the two corpora supported that fact that the TA were less likely to assert their voices with credible references when they describe their current study. They

perhaps did not see the necessity to do so since *Move 3* is their own space to illucidate everything on their own. Unlike the IA, many of them tended to create their arguments in this very move using citations, especially in the optional move units including *M3S3: Definitional clarifications, M3S4: Summarizing methods,* and *M3S5: Announcing principal outcomes*, where the TA seldom presented these move units in nature, thereby reducing a chance to cite their work academically.

Due to the fact that strong claim-making should be avoided in constructing arguments in academic writing (Hyland, 2005b), hedges (HG) are frequently used in both corpora. However, the IA clearly used many more HG items, specifically in Move 3, than those found in the TA corpus. This indicated more of a negotiation approach in establishing arguments made by the international academicians. That is, hedges could be effectively employed to open a discursive space to allow the target readers to interpret and exercise their points of view. Making serious claims can risk producing arguments which might be in conflict with existing literature or trigger the readers' negative suspicions. As a result, the use of hedges is the better option to accommodate the readers' expectation and encourage their participation in the textual interaction.

In terms of self-mentions (SM), the self-promotion metadiscourse obviously stood out as one of the key dominant sub-categories found in the corpora, confirming their decisive role in the construction of identity, of which the IA clearly made far more use than the TA, especially in Move 3 where the IA discussed their present work. Therefore, this finding reflects the importance SM and its writing convention, particularly in the international jourals. The difference in the use of SM between the two corpora illustrates, as Cadman (1997) claimed, the epistemological orientations of different sociocultural expectations in academic texts. This might be because the Thai scholars may feel that SM should not be used in a formal piece of academic writing and they do not see many examples in using it in their own discourse community, so they feel more comfortable to avoid using this kind of metadiscourse in their scholarly work.

In recent decades, writing convention actually seems to disagree on the use of human agency references like personal pronouns owing to the popular belief that academic research studies should have been purely empiricial and objective in their formal expressions of ideas (e.g. Jones & Keene, 1981; Arnaudet & Barrett, 1984) and

that the target readers are not general readers, but specialists; thus, mentioning oneself in a casual style could lead to a high degree of ego fulfillment without signalling the academic discourse convention of argument (e. g. Chafe, 1985; Wilkinson, 1992). Nevertheless, the self-mentioning practice has currently been more favorably received and supported by the studies of Ivanic (1998) and Hyland (2008a), saying that projecting the state of being oneself or a discoursal self is a crucial process in academic writing. One will not effectively be able to relate readers to one's arguments in discipline without demonstrating a linguistic device of self-expression. Furthermore, Tang and John (1999) pointed that self-mentioning also demonstrates the authorial identity of academic writers as well as creates cohesion and effective interaction between writers and readers by means of writers' personal communicative strategies in projecting their arguments, attitudes, evaluation, commentaries, and so on. It also facilitates writers to differentiate or limit their own viewpoints from the voices of others and establish credibility and trustworthiness with expected readers as competent members of the disciplinary field. Their own contribution to the field can be highlighted and more effectively seeks agreement from readers at the same time (Kuo, 1999).

Interestingly, apart from the use of SM, the need for self-promotion was even more obviously seen in the IA corpus when they strongly expressed their favorable attitudes towards their own scholarly work in *Move 3: presenting the present work*, showing how important and unique their work was.

- (M3S1) *Our research is **novel** in the field of second language acquisition, because our survey instrument is the first questionnaire that provides a theoretically and empirically validated assessment of self-regulatory strategies and autonomous learning behavior.* (IA14)

Such self-promotional claims were not actually found in the TA corpus whose writers are supposed to be humble and do not easily project how good they are according to the Thai culture. However, in the academic world where the international competition to get published is rather fierce, the modern writing norms seem to encourage the use of self-promotion (Swales, 2004). As Berkenkotter and Huckin (1995) argued in their longitudinal study, academicians nowadays have been eager to get their research studies published internationally so that they can achieve higher scholarly status in their own

disciplinary field. Consequently, they need to put more effort into making themselves to be novel authors of the manuscripts they write. It is logically necessary for them to show how novel and important their work is in an explicit manner through the use of different self-promotional features like SM and AM as the abovementioned.

Both interactive and interactional functions of metadiscourse features could be seen via the metadiscourse nouns (MN) when they were used as conhesive devices to enhance logical coherence, and at the same time express academic writers' viewpoints as well as engage the target readers into contextualized texts (Jiang & Hyland, 2016).

The authorial intervention in using a noun agency to show how additional information can be obtained or tracked in the text helps guide readers with a clearer picture in detail (Dahl, 2004). According to these statements, it can be said that the IA tended to have more consideration in helping readers to understand their texts since it was found that a lot more MN items were discovered in the IA corpus than the TA one. Conversely, the limited tendency in the use of MN in the TA corpus may indicate, in other words, that Thai academicians did not see the importance of the MN items so they neglect the use of this metadiscourse feature in their scholarly work. However, the real reason may be owing to the fact that the international journals with high-impact factor strongly require a scholarly work to show novelty in regard to existing knowledge. The competition and rejection rate are high among international writers who attempt to get their papers published. This thus automatically leads to more complexity of the subject matters in their articles sent to be reviewed. When the contents of their writing tend to be complicated, it is the duty of writers themselves to offer appropriate organization and readability to their article as much as possible. The use of MN in the international journal seems to be a reasonable option as a result.

Some metadiscourse items in interactional resources in different subtegories may work together to produce an effectively rhetorical effect. Most of them, which could be in either TA or IA corpora, are usually combined with attitude markers (AM) and boosters (BT) or hedges (HG). For instance,

- *…the Internet plays an **extremely important** role in students' lives, …(TA3).*
- *However, there **seems little** consensus on what constituted coherence. (TA29)*

-   *...a leadership focus is **<u>particularly important</u>** in filling some of the gaps in the TESOL field (IA22).*

It is interesting to note that the similarities and differences in the use of metadiscourse features within rhetorical moves of the two corpora were determined by the aforementioned description. In the next chapter of this study, a summary of the study, pedagogical implications, and recommendations for further studies are presented.

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Study

The primary objective of this Master's thesis was twofold. First, using Swales (2004)'s CARS model, the researcher aimed at examining and identifying the similarities and differences of macro-textual organization: rhetorical move structures (M1-M2-M3) based on the corpora of 60 pieces of ELT research article introductions (RAIs) written by Thai and by international academicians (TA vs. IA). Second, it was an attempt to find out the similarities and differences of the metadiscourse features embedded in such rhetorical move structures, based on the framework of Hyland & Tse (2004a), Hyland (2005a), and Jiang & Hyland (2016). The metadiscourse include: 1) interactive metadiscourse: transitions (TS), frame markers (FM), endophoric markers (EM), evidentials (ET), code glosses (CG) 2) interactional metadiscourse: hedges (HG), boosters (BT), attitude markers (AM), self-mentions (SM), engagement markers (EG) and 3) metadiscourse nouns (MN). These linguistic resources were found to be crucial and powerful communicative devices which facilitated the pragmatic functions rhetorically employed in the target written text of research article introductions (RAIs) in the ELT field. According to the comparative analysis, the salient similarities and differences of the two corpora could be concluded as follows.

Table 5.1 Similarities and differences of macro-textual organization

Similarities	Differences
1. Both TA and IA relatively employed the similar numbers of move-step units (105 vs. 113) in their RAIs.	1. The IA tended to follow the obligatory move structures according to the CARS model more strictly than the Thai counterparts
2. The majority of the TA and IA produced move structures according to the norms of the CARS model.	2. The IA also followed the move linear patterns (M1-M2-M3) more often than the TA.
3. *M2: Establishing a Niche* could be missing from the RAIs written by both TA and IA	3. The occurrences of the optional steps in the RAIs written by the TA and IA seemed to be different in a varying degree.
4. The TA and IA normally indicated Step *M2S1A: Indicating a gap* by emphasizing the insufficiency of research	4. The estimate proportion of words in the RAIs according to each the main move (M1-M2-M3) between the TA and IA was different

Regarding the first research question: 1) what is the macro-textual organization in terms of rhetorical move structures of RAIs in the field of English language teaching (ELT) written by the TA in national journals vs. IA in international journals with high impact-factor? the analysis revealed that the main moves (M1-M2-M3) were well-established in the two corpora. The moves and steps inside were obligatory, conventional or optional according to their different patterns and functions. Both Thai and international ELT researchers centralized their writing construction to the target readers through the employment of these move structures, and their proportion of communicative units was more or less the same. They realized the importance of establishing their research contexts through *M1: Establishing a Territory*, *M2: Establishing a Niche either by Step M2S1A: Indicating a gap* or *Step M2S1B: Adding to what is known*, and *M3: Presenting the Present Work* via *Step M3S1: Announcing present research descriptively and/or purposefully*. Besides this, one important similarity was that the TA and IA typically indicated a gap (M2S1A) in *Move 2: establishing a niche* by merely pointing to the insufficiency of previous research studies rather than revealing their limitation or weaknesses. Also, *M2: Establishing a Niche* could be missing from the RAIs written by the TA and IA since there were up to 8 RAIs of both corpora (30%) that did not contain this move. This shows that most of the ELT academicians tended to uphold the writing convention of the ELT field which tends not to express strong criticism of previous studies.

For the differences of rhetorical moves, first, the IA tended to follow the obligatory move structures according to the CARS model more strictly than the Thai counterparts since the RAIs written by the IA had consistently more numbers of the obligatory moves (M1+M3S1) than those found in the TA corpus (28 vs 21 RAIs). Second, the IA also followed the move linear patterns (M1-M2-M3) more than the TA. This pattern occurred only 20% in the TA corpus, while 43.33% occurred in the IA corpus. Third, the occurrences of the optional steps in the RAIs written by the TA and IA seemed to be different in a varying degree. Fourth, the estimated proportion of words in the RAIs relating to each main move (M1-M2-M3) between the TA and IA was different, the TA corpus was 7:1:2 while the IA one was 6:1:3. Therefore, the IA tended to put emphasis on the importance of move 3 more than the TA. This was reinforced

when a number of metadiscourse features produced by the IA were obviously found in Move 3.

With the attempt to answer the second research question: what are the similarities and differences in the use of metadiscourse found within the macro-textual organization in the two sets of English RAIs? the research results showed that the degree of numbers and density, as well as the choices of metadiscourasal features, were more different in varying degrees than similar between the two corpora. The comparative analysis demonstrated a critical view of academic writing in the introduction section which provides the space for acadmicians to display their persona as professional scholars before their target audience. It was found that the systematic and functional dimentions of the metadiscourse features within each primary rhetorical move were actually governed by sociocultural perspectives and institutional contexts as well as the academicians' professional identities.

Table 5.2 Similarities and differences of metadiscourse features in move structures

Similarities	Differences
1. Metadiscourse features were hardly found in Move 2: *M2: Establishing a Niche* and they did not show interesting functions within the move.	1. For interactive metadiscourse, the TA focused on the use of Transitions (TS) in Move 1-3, while the IA is a lot more active in using Frame markers (FM) in Move 3, Endophoric markers (EM) in Move 1, Evidentials (ET) in Move 1-2-3, Code glosses (CG) in Move 1.
	2. For interactional metadiscourse, the TA tended to use more Hedges (HG), Boosters (BT), Attitude markers (AM), Engagement markers (EG) in Move 1 than those found in the IA corpus. However, the IA produced more Hedges (HG), Boosters (BT), Attitude markers (AM) and Self-mentions (SM) in Move 3.
	3. For Metadiscourse nouns (MN), the IA obviously produced them in higher numbers than the TA in all Moves, especially in Move 1.

The critical explanation of the aforementined could be more understood through the analysis of metadiscourse markers within each rhetorical move. Table 5.2 revealed the differences rather than similarities between the production of metadiscourse features within each main move structure (M1-M2-M3) in the RAIs of both corpora. The TA and IA clearly disclosed their unique identities in writing approaches when they utilized the different proportion and diverse sub-categories of metadiscourse features within each rhetorical move. This indicated that the TA cared about presenting their knowledge claims in Move 1 to create the text flow with links between sentences with Transitions (TS). They also tended to engage readers more by using interactional metadiscourse like Hedges (HG), Boosters (BT), Attitude markers (AM), Engagement markers (EG) in Move 1. However, they seemed to neglect the use of these metadiscourse options in Move 3. The IA, on the other hand, put emphasis on the use of interactive metadiscourse such as Endophoric markers (EM), Evidentials (ET) and Code glosses (CG) to create explicitly logical consequences and inferences in discourse. Also, they paid more attention to creating understanding as well as engaging readers through the use interactional metadiscoursal features in *Move 3: Presenting the present work,* although they created fewer interactional metadiscourse features in Move 1 than the TA. Additionally, the IA effectively used self-mentions (SM) and attitude markers (AM) in Move 3 as self-promotional tools to confirm their decisive role in the construction of identity and uniqueness, tools which the TA clearly were reluctant to use.

All in all, the IA predominantly highlighted the outlines of related content to guide readers through their contextualized texts, assuming that readers need to be assisted when navigating the text. It is the responsibility of an academic writer to do so. This suggested some unique aspects of the writing conventions found in the world's leading journals. Importantly, they put great emphasis on referring to Evidentials (ET), the academic attribution of previous studies, in order to strongly build their credibility as earnest academic writers and provide readers with more gaps or possibilities to conduct future studies. Last but not least, they stressed the state of being novel originators by employing linguistic features to indicate self-promotion to academically comete with other scholars of the same field in the international arena. The TA, on the contrary, used much fewer interactive metadiscourse resources in Move 1 and also other metadiscourse features in Move 3. This indicated that the writing of the RAIs by the TA tended to be

rather reader- responsible since using the fewer metadiscourse resources allows readers to actively explore textual contents more by themselves.

It is clear that the standard practice in writing a research article introduction tends to be flexible and, at the same time, influenced by the different rhetorical preferences and conventions. This possibly results from the academicians' background knowledge and experiences in the particular academic communities in which they reside. In other words, their relatively different writing approaches and conventions illuminates the ways in which the displayed features in the texts (RAIs) worked together with the academicians' pragmatic and discoursal construction of identities. This enables us to realize how the two groups of academicians achieved building the RAIs to the target readers' expectation and influencing their comprehension based on the academicians' judgement and evaluation, thereby creating a textual interaction with a persuative effect. Moreover, the publishing specification of different contexts can also be a crucial factor that determines the rhetorical organization of an introductory section to meet with the anticiatory norms and conventions of a particular journal.

5.2 Pedagogical Implications

In publishing an article in an academic journal, it is crucially important that not only do both novice and professional academicians need to be able to show their knowledge of academic fields, but they are also required to demonstrate their familiarity with appropriate rhetorical conventions based on the social acceptance of a particular academic community. This is because different discourse communities may have different conventions in writing. Therefore, understanding the different norms and expectations for academic writing in different discourse settings is highly beneficial. Authors should be able to observe and know how to employ suitable patterns of rhetorical devices used in their texts to achieve the most effective interactions with the target readers in the discourse community they are involved with.

The analysis of the rhetorical move structures revealing the textual organization and metadiscourse features embedded in the structures therefore discloses the significant ingredients necessary to construct an acceptable research article introduction. Such ingredients tend to render each academic discourse community and scholarly identity unique from one another. Even residing in the same field, academicians do not produce

the same degree or patterns of linguistic use. Their rhetorical decisions are very much tightened with sociocultural and epistemological practices that influence members of the same particular community and then, of course, their written discourse.

Since both novice and professional academicians in the field of ELT have rhetorical choices in writing, the findings of this study could help make students of EAP aware of the rules and conventions as well as possibilities in selecting their styles and strategies to write confidently and appropriately. As we know, students of EAP need quality scaffolding during their learning process before they independently perform a writing task and achieve their ultimate goal of becoming proficient writers. Therefore, to provide sufficient support in learning how to write, teachers can present students in detail with diverse move structures as well as a number of metadiscourse devices and options, emphasizing their signals and rhetorical functions step by step, allowing students to examine the textual elements and preferred patterns of rhetorical expressions found in both local and international discourse communities. This should be done to assist them in moving beyond the traditional instruction which either throws them into the pond to sink or swim or relies repeatedly on typical academic writing guides or textbooks which are usually found rather too broad or even irrelevant to the rhetorical context of their ELT discipline. The key here is to enable them to understand and experience the flexibility and diversity of the relevant writing patterns and conventions. For example, if the goal of writing a research paper is to get published in an international journal with high impact factor, students may be trained to understand the kind of metadiscourse features required in their particular papers. They need to load a large number of different kinds of academic evidentials or citations which are still rather minimally included in the Thai national journals. They also need to realize that explicit self-promotion in text is more important and a better choice than being overly humble in the international arena. The use of self-mentions and attitude markers showing novel identity and uniqueness is important to reckon with. However, when needing to be academically humble at the appropriate time, hedges can also be very useful, and the minimal use of inferential transitions indicating cause-effect relationships is desired since they are not very much seen in the international journals.

In teaching, a class can therefore be reinforced by training the EAP students to reflect their ideas and opinions through group discussions on others' and their own choices of the target structures and functions used in their writing practice before asking them to autonomously write something on their own. For instance, guiding students via authentic materials, teachers could ask questions like 'Where did a writer state his/her purpose in conducting research? What signal did s/he use?', 'Why did a writer utilize HG or BT items here?', 'What effect was a writer be able to project when s/he used personal pronouns such as I, you, or we?' To increase intensity, small groups of students might be asked to collect their material, analyse the rhetorical moves and markers, and then present the details to their peers. These activities could later provide them with constructive feedback among themselves and from teachers. This will help them evaluate more effectively what rhetorical decisions they are going to make and how to gain control over in their future writing

5.3 Recommendations for Further Studies

1. Since the current study rather focused more on the product of academic writing than the process, a future study may thus add more research instrumentation (e.g. a semi-structured interview). The triangulation would help consolidate findings so as to be more stabilized and reliable.

2. A concentration of only one specific sub-category of metadiscourse such as transitions, hedges, boosters, attitude markers, or self mentions within any particular genre could level up a future similar analysis in depth. Therefore, one specific metadicoursal feature may be required to effectively focus the rhetorical move analysis.

3. From a perspective of English as an academic lingua fraca and world Englishes in different communities, a similar study in research articles written by international scholars across nationalities whose L1 is not English, such as between Thai and Chinese scholars, may yield interesting results for the writing practices in diverse academic discourse, especially the RAs that have been published in international journals with high impact factor.

4. This study is focused on only academic written discourse of the RAIs, so a further study could emphasize spoken academic genre such as class lectures, seminars, or presentations. A study may ambitiously attempt to compare and contrast the linguistic

features between the spoken and written discourse of the same genre as well. For example, we could study the degree to whichthe move structures and metadiscourse used in proceedings of international conferences and their oral presentations correspond to each other.

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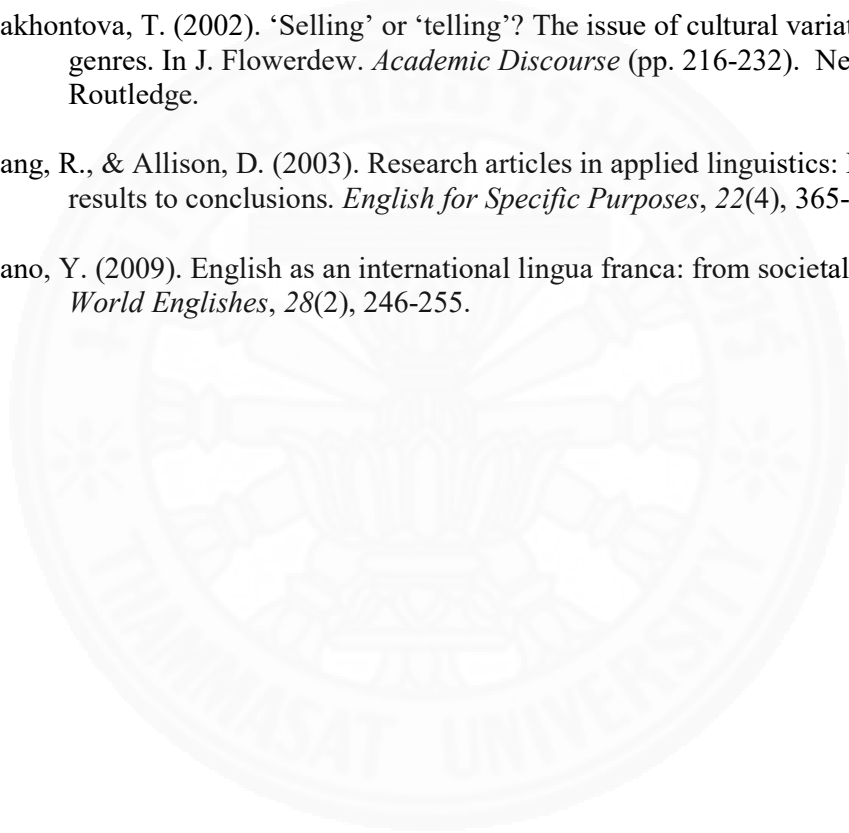
APPENDICES

Appendix A

List of Research Articles (RAIs) for the Analysis

A1. The Thai Academician Corpus

TA1	Pattapong, K. (2015). Complex Interactions of Factors Underlying Thai EFL Learners' Willingness to Communicate in English. *PASAA: Journal of Language Teaching and Learning in Thailand*, *49*, 105-136.
TA2	Tangkijmongkol, C., & Wasanasomsithi, P. (2013). An Analysis of English Language Learning Needs and Promblems of Underprivileged Children in a Slum Area in Bangkok Metropolis. *PASAA: Journal of Language Teaching and Learning in Thailand*, *46*, 11-45.
TA3	Watanapokakul, S. (2015). Exploring Veterinary Science Students' Digital Literacy and Their Disposition toward the Use of Online Games for Learning English. *LEARN Journal: Language Education and Acquisition Research Network*, *8*(2), 104-125.
TA4	Yumanee, C., & Phoocharoensil, S. (2013). Analysis of collocational errors of Thai EFL students. *LEARN Journal: Language Education and Acquisition Research Network*, *6*(1), 88-98.
TA5	Attachoo, B., & Chaturongakul, P. (2015). A Study of Vocabulary Size, Competency, Learning Strategies, and Perceptions of Problems with Vocabulary Learning of Students with Learning Disabilities. *LEARN Journal: Language Education and Acquisition Research Network*, *8*(2), 59-83.
TA6	Songkasiri, A., & Sarobol, N. (2016). The Outcomes of Thai Pharmacy University Students Participating in the Student Exchange Program. *LEARN Journal: Language Education and Acquisition Research Network*, *9*(1), 87-101.
TA7	Promnath, K., & Tayjasanant, C. (2016). English-Thai Code-Switching of Teachers in ESP Classes. *PASAA: Journal of Language Teaching and Learning in Thailand*, *51*, 97-126.
TA8	Vongkrachang, S., & Chinwonno, A. (2015). CORI: Explicit Reading Instruction to Enhance Informational Text Comprehension and Reading Engagement for Thai EFL Students. *PASAA: Journal of Language Teaching and Learning in Thailand*, *49*, 67-104.
TA9	Wanich, W. (2014). The Relationship between the CLT Approach and Thai EFL Students' Attitudes and Motivation in Learning Speaking. *LEARN*

	Journal: Language Education and Acquisition Research Network, *7*(1), 106-124.
TA10	Oranpattanachai, P. (2013). Motivation and English language achievement of Thai undergraduate students. *LEARN Journal: Language Education and Acquisition Research Network*, *6*(1), 26-48.
TA11	Meechai, D., & Chumworathayee, T. (2015). Verb+ Noun Collocational Competence of Thai University EFL Students: A Comparative Study of a Regular Program and an English Program. *LEARN Journal: Language Education and Acquisition Research Network*, *8*(2), 145-160.
TA12	Phasomyard, W., Jimarkon, P., & Keyuravong, S. (2013). When Affective Factors Change: A Corpus-based Analysis of Students' Reflections in English E-portfolios. *PASAA: Journal of Language Teaching and Learning in Thailand*, *46*, 75-106.
TA13	Singto, S. (2012). Raters' orientation in a paired speaking test. *Journal of English Studies*, *7*.
TA14	Kongsom, T. (2016). The Impact of Teaching Communication Strategies on English Speaking of Engineering Undergraduates. *PASAA: Journal of Language Teaching and Learning in Thailand*, *51*, 39-69.
TA15	Apairach, S., & Vibulphol, J. (2015). Beliefs about Language Learning of Thai Upper Secondary School Students in Different Educational Contexts. *PASAA: Journal of Language Teaching and Learning in Thailand*, *50*, 65-94.
TA16	Sojisirikul, P., & Vasuvat, S. (2014). Analysis of Sentence Structures through Translation for a Reading Task. *Journal of English Studies*, *9*.
TA17	Thapthimhin, T., & Pongpairoj, N. (2015). Target-like Syntactic Representations of L1 Thai Learners: A Case of L2 English Number Agreement. *LEARN Journal: Language Education and Acquisition Research Network*, *8*(2), 126-144.
TA18	Phaiboonnugulkij, M., & Prapphal, K. (2012). Language for Specific Purposes (LSP) Web-based Assessment and the Speaking Performances of Two Ability Groups. *PASAA: Journal of Language Teaching and Learning in Thailand*, *44*, 1-37.
TA19	Pookcharoen, S. (2011). Thai EFL Undergraduates' Vocabulary Learning Strategies: Perception and Practice. *Journal of English Studies*, *6*.
TA20	Pookcharoen, S. (2010). Revitalizing Thai EFL Classrooms through Electronic Portfolios. *Journal of English Studies*, *5*.

TA21	Sritulanon, A. (2013). The Effects of Morphological Instruction on Reading Abilities of Low Proficiency Adult EFL Learners at a University in Thailand. *LEARN Journal: Language Education and Acquisition Research Network*, *6*(1), 49-65.
TA22	Ranong, S. N. (2014). Idiom Comprehension and Processing: the Case of Thai EFL Learners. *Journal of English Studies*, *9*.
TA23	Suebsook, K., & Adunyarittigun, D. (2016). In the Right Place at the Right Time: Asian English Accents in a Listening Test for Healthcare Professions. *PASAA: Journal of Language Teaching and Learning in Thailand*, *51*, 215-234.
TA24	Aroonmanakun, V. (2015). Quick or Fast: A Corpus Based Study of English Synonyms. *LEARN Journal: Language Education and Acquisition Research Network*, *8*(1), 53-62.
TA25	Jiriyasin, T. (2014). Enlivening EFL Discussion Classrooms with a Problem-Based Learning Approach. *PASAA: Journal of Language Teaching and Learning in Thailand*, *47*, 129-146.
TA26	Nomnian, S., & Thawornpat, M. (2015). Family Engagement on the Promotion of Thai Learners' English Language Learning in Public Secondary Schools in Bangkok. *LEARN Journal: Language Education and Acquisition Research Network*, *8*(2), 43-58.
TA27	Bunsom, T., Vungthong, S., & Singhasiri, W. (2011). Developing engineering students' critical thinking skills through reading short stories. *Journal of English Studies*, *6*.
TA28	Wadsorn, N., & Panichkul, S. (2014). River' or 'Liver'? Exploring the Intelligibility of Thai's (Mis) pronunciation of English 'r' and 'l. *LEARN Journal: Language Education and Acquisition Research Network*, *7*(2), 51-67.
TA29	Vivekmetakorn, C. K., & Kaewbangpood, K. (2014). EFL Students' Voices on Coherence: A Classroom-Based Inquiry. *LEARN Journal: Language Education and Acquisition Research Network*, *7*(1), 91-105.
TA30	Eak-in, S. (2015). Effects of a Corpus-Based Instructional Method on Students' Learning of Abstract Writing: A Case Study of an EAP Course for Engineering Students. *Journal of English Studies*, *10*.

A2. The International Academic Corpus

IA1	Thompson, A. S., & Lee, J. (2014). The impact of experience abroad and language proficiency on language learning anxiety. *TESOL Quarterly*, *48*(2), 252-274.
IA2	Elgort, I., & Warren, P. (2014). L2 vocabulary learning from reading: Explicit and tacit lexical knowledge and the role of learner and item variables. *Language Learning*, *64*(2), 365-414.
IA3	Moskovsky, C., Alrabai, F., Paolini, S., & Ratcheva, S. (2013). The effects of teachers' motivational strategies on learners' motivation: A controlled investigation of second language acquisition. *Language Learning*, *63*(1), 34-62.
IA4	Ryan, J. (2015). Overexplicit Referent Tracking in L2 English: Strategy, Avoidance, or Myth?. *Language Learning*, *65*(4), 824-859.
IA5	Lamb, M. (2012). A self system perspective on young adolescents' motivation to learn English in urban and rural settings. *Language learning*, *62*(4), 997-1023.
IA6	Hsieh, P. P. H., & Kang, H. S. (2010). Attribution and self-efficacy and their interrelationship in the Korean EFL context. *Language Learning*, *60*(3), 606-627.
IA7	Saito, K. (2015). Experience effects on the development of late second language learners' oral proficiency. *Language Learning*, *65*(3), 563-595.
IA8	Yung, K. W. H. (2015). Learning English in the shadows: Understanding Chinese learners' experiences of private tutoring. *TESOL Quarterly*, *49*(4), 707-732.
IA9	Mancilla-Martinez, J. (2010). Word meanings matter: Cultivating English vocabulary knowledge in fifth-grade Spanish-speaking language minority learners. *TESOL Quarterly*, *44*(4), 669-699.
IA10	Crowther, D., Trofimovich, P., Saito, K., & Isaacs, T. (2015). Second language comprehensibility revisited: Investigating the effects of learner background. *TESOL Quarterly*, *49*(4), 814-837.
IA11	Edwards, J. G. H. (2011). Deletion of/t, d/and the acquisition of linguistic variation by second language learners of English. *Language Learning*, *61*(4), 1256-1301.

IA12	Tavakoli, P., Campbell, C., & McCormack, J. (2015). Development of speech fluency over a short period of time: Effects of pedagogic intervention. *TESOL Quarterly*, *50*(2), 447-471.
IA13	Hartshorn, K. J., Evans, N. W., Merrill, P. F., Sudweeks, R. R., STRONG-KRAUSE, D. I. A. N. E., & Anderson, N. J. (2010). Effects of dynamic corrective feedback on ESL writing accuracy. *Tesol Quarterly*, *44*(1), 84-109.
IA14	Kormos, J., & Csizér, K. (2014). The Interaction of Motivation, Self-Regulatory Strategies, and Autonomous Learning Behavior in Different Learner Groups. *Tesol Quarterly*, *48*(2), 275-299.
IA15	Serrano, R. (2011). The time factor in EFL classroom practice. *Language Learning*, *61*(1), 117-145.
IA16	Riley, T. (2015). "I Know I'm Generalizing but…": How Teachers' Perceptions Influence ESL Learner Placement. *TESOL Quarterly*, *49*(4), 659-680.
IA17	Copland, F., Garton, S., & Burns, A. (2014). Challenges in teaching English to young learners: Global perspectives and local realities. *Tesol Quarterly*, *48*(4), 738-762.
IA18	Kahng, J. (2014). Exploring utterance and cognitive fluency of L1 and L2 English speakers: Temporal measures and stimulated recall. *Language Learning*, *64*(4), 809-854.
IA19	Simpson Baird, A., Palacios, N., & Kibler, A. (2016). The Cognate and False Cognate Knowledge of Young Emergent Bilinguals. *Language Learning*. *66*(2), 448-470.
IA20	Nassaji, H. (2013). Participation structure and incidental focus on form in adult ESL classrooms. *Language Learning*, *63*(4), 835-869.
IA21	Kieffer, M. J., & Lesaux, N. K. (2012). Direct and indirect roles of morphological awareness in the English reading comprehension of native English, Spanish, Filipino, and Vietnamese speakers. *Language Learning*, *62*(4), 1170-1204.
IA22	McGee, A., Haworth, P., & MacIntyre, L. (2015). Leadership practices to support teaching and learning for English language learners. *TESOL Quarterly*, *49*(1), 92-114.
IA23	Derwing, T. M., Munro, M. J., Foote, J. A., Waugh, E., & Fleming, J. (2014). Opening the window on comprehensible pronunciation after 19 years: A workplace training study. *Language Learning*, *64*(3), 526-548.

IA24	Révész, A. (2012). Working memory and the observed effectiveness of recasts on different L2 outcome measures. *Language Learning*, *62*(1), 93-132.
IA25	Ruegg, R., Fritz, E., & Holland, J. (2011). Rater sensitivity to qualities of lexis in writing. *Tesol Quarterly*, *45*(1), 63-80.
IA26	Song, Y. (2015). L2 processing of plural inflection in English. *Language Learning*, *65*(2), 233-267.
IA27	Ma, F., & Ping, L. (2012). Advantages and disadvantages of native-and nonnative-English-speaking teachers: Student perceptions in Hong Kong. *TESOL quarterly*, *46*(2), 280-305.
IA28	Suzuki, W. (2012). Written languaging, direct correction, and second language writing revision. *Language Learning*, *62*(4), 1110-1133.
IA29	Ramírez-Esparza, N., Harris, K., Hellermann, J., Richard, C., Kuhl, P. K., & Reder, S. (2012). Socio-Interactive Practices and Personality in Adult Learners of English With Little Formal Education. *Language Learning*, *62*(2), 541-570.
IA30	Bergström, K., Klatte, M., Steinbrink, C., & Lachmann, T. (2016). First and Second Language Acquisition in German Children Attending a Kindergarten Immersion Program: A Combined Longitudinal and Cross-Sectional Study. *Language Learning*, *66*(2), 386-418.

Appendix B

Distribution of Metadiscourse in Sub-types of Each Rhetorical Move

B1. Interactive metadiscourse

B1.1 Transitions (TS)

Types of transitions						
Additive	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
and	24	4	3	10	4	7
additionally	1	-	1	-	1	-
also	16	2	6	20	1	6
besides	1	-	-	-	-	-
moreover	3	2	-	3	1	-
further	2	1	3	4	1	5
furthermore	3	-	-	2	-	2
in addition	6	2	1	2	2	2
Total	**56**	**11**	**14**	**41**	**10**	**21**

Types of transitions						
Contrastive	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
but	3	1	1	9	1	1
although	6	2	-	10	5	3
even though	2	2	-	-	-	-
though	1	-	-	2	-	-
however	20	9	1	6	10	1
nevertheless	1	1	-	-	-	-
nonetheless	-	-	-	1	-	-
on the contrary	-	-	-	1	-	-
on the other hand	4	-	-	2	1	-

rather	1	-	-	-	1	1
whereas	2	-	-	-	-	1
while	4	1	-	3	-	1
yet	1	1	-	-	3	-
Total	**45**	**17**	**2**	**34**	**21**	**8**

Types of transitions						
Inferential	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
as	8	-	-	5	-	-
because	4	-	1	4	4	3
since	6	-	1	-	-	-
so	3	-	-	-	-	-
so that	3	-	3	-	-	-
accordingly	1	1	1	-	-	1
as a consequence	-	1	-	1	-	-
as a result	4	-	-	2	-	-
consequently	2	-	1	-	-	-
for this reason	1	-	1	-	-	-
hence	2	1	-	-	-	-
subsequently	-	-	-	1	-	-
therefore	6	1	8	2	1	6
thus	9	4	3	4	2	3
Total	**49**	**8**	**19**	**19**	**7**	**13**

B1.2 Frame Markers (FM)

Type of frame markers						
Announcers	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
…as follows	2	-	2	-	-	-
following…	-	1	4	-	1	1
…is/was to	-	-	1	-	-	9
aims/aimed to...	-	-	9	-	-	3
aims at	-	-	2	-	-	-
attempts to	-	-	-	-	-	3
is an attempt to…	-	-	-	-	-	1
was conducted to	-	-	2	-	-	-
was designed to	-	-	1	-	-	-
is carried out to	-	-	1	-	-	-
the aims of…were…	-	-	1	-	-	-
Total	**2**	**1**	**23**	**-**	**1**	**17**

Type of frame markers						
Sequencers	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
first	-	-	-	-	-	4
second	-	-	-	-	-	1
then	-	-	-	-	-	3
next	-	-	-	-	-	2
finally	-	-	-	-	-	2
Total	**-**	**-**	**-**	**-**	**-**	**12**

Type of frame markers						
Topicalizers	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
regarding	1	-	-	-	-	1
with regard to	1	-	-	1	-	
in terms of	1	-	-	-	-	
Total	**3**	**-**	**-**	**1**	**-**	**1**

B1.3 Endophoric Markers (EM)

Type of endophoric markers						
Linear-references	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
above	1	1	-	1	-	-
below	-	-	-	1	-	1
following	-	-	1	-	-	1
next	-	-	1	-	-	-
Total	**1**	**1**	**2**	**2**	**-**	**1**

Type of endophoric markers						
Linear-references	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
see	1	1	1	12	2	4
Total	**1**	**1**	**1**	**12**	**2**	**4**

B1.4 Evidentials (ET)

Type of evidentials						
Integral	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
Verb controlling	44	5	-	14	1	3
Naming	16	-	-	19	-	3
Non-citation	-	-	-	1	3	-
Total	**60**	**5**	**-**	**34**	**4**	**6**

Type of evidentials						
Non-integral	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
Source	132	6	4	212	18	16
Identification	72	43	1	99	39	-
Reference	-	2	-	18	19	11
Origin	2	-	-	7	1	5
Total	**206**	**51**	**5**	**336**	**77**	**32**

B1.5 Code Glosses (CG)

Type of code glosses						
Exampification	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
such as	14	4	1	16	1	4
like	4	-	1	1	-	-
for example	4	-	-	5	-	2
for instance	-	1	-	4	-	-
e.g.	6	5	3	50	12	3
i.e.	1	1	1	5	-	-
namely	-	1	1	2	-	1

including	12	1	-	7	-	1
Total	**41**	**13**	**7**	**90**	**13**	**11**

Type of code glosses						
Reformulation	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
that is	-	-	1	3	1	-
that is to say	1	-	-	-	-	-
in other words	2	2	1	1	-	-
which means	1	-	-	-	-	-
it means that	1	-	-	-	-	-
Total	**5**	**2**	**2**	**4**	**1**	**-**

B2 Interactional metadiscourse

B2.1 Hedges (HG)

Type of hedges						
Modal auxiliary verbs	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
could	7	2	2	-	1	1
may	16	1	2	17	1	7
might	5	-	1	1	1	1
would	2	-	-	3	1	1
Total	**30**	**3**	**4**	**21**	**4**	**10**

Type of hedges						
Epistemic lexical verbs	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
appear	-	-	-	6	-	2
assume	1	-	-	-	-	1
seem	8	1	1	2	1	2
suggest	5	1	-	11	1	3
tend	7	2	-	1	-	-
Total	**21**	**4**	**1**	**20**	**2**	**8**

Type of hedges						
Epistemic adjectives/ adverb	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
about	1	-	-	1	-	-
approximately	2	-	1	1	-	-
likely	2	-	1	1	1	-
often	3	2	-	13	1	3
possible	1	-	3	1	-	2
possibly	-	-	-	1	-	-
probably	1	-	-	-	-	-
perhaps	1	-	-	-	-	-
quite	3	-	-	-	-	-
rather	2	1	1	2	1	1
relatively	1	1	-	1	1	1
Total	**17**	**4**	**6**	**21**	**4**	**7**

B2.2 Boosters (BT)

Type of booters						
Modal auxiliary verbs	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
have to	9	-	1	-	-	-
must	2	-	1	1	-	-
need	7	2	2	-	1	-
shall	1	-	-	-	-	-
will	6	2	6	4	1	7
Total	**25**	**4**	**10**	**5**	**2**	**7**

Type of booters						
Epistemic adjectives/adverbs	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
always	3	1	-	-	-	-
apparent/apparently	-	-	-	2	-	-
considerable/considerably	2	-	-	5	5	2
distinctive	-	-	1	-	-	-
dramatically	-	-	-	-	-	1
especially	3	3	-	1	-	-
evident	-	1	-	4	-	-
extensive/extensively	1	-	-	3	1	-
extremely	1	-	-	1	1	-
great/greatly	2	-	-	2	-	-
heavily	1	-	-	-	-	-
highly	-	-	-	5	-	-
inevitably	1	-	-	-	-	-
in fact	1	-	-	2	1	-
large/largely	4	3	1	3	1	3
most	5	1	-	6	2	2

particularly	8	3	2	2	3	-
in particular	1	-	-	3	-	4
precisely	1	1	-	-	-	-
predominantly	-	-	-	-	-	1
obvious/ obviously	2	1	-	1	-	-
of course	1	-	-	-	-	-
only	10	5	1	8	5	3
really	-	1	-	-	-	-
significant/significantly	7	-	2	-	2	-
so	-	-	-	1	-	-
specifically	1	-	1	1	-	7
strong	-	1	-	3	1	-
substantial/substantially	2	-	-	4	-	-
tremendously	-	-	-	1	-	-
undeniably	1	-	-	-	-	-
very	4	1	-	3	1	1
Total	**62**	**22**	**8**	**61**	**23**	**24**

Type of booters						
Epistemic phrases/clauses	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
the fact that	-	-	1	-	2	1
it is clear that	1	1	-	1	-	-
it is evident that	1	-	-	-	-	-
X believe (that)	1	1	-	1	-	-
Total	**3**	**2**	**1**	**2**	**2**	**1**

B2.3 Attitude markers (AM)

Attitudinal adjectives and adverbs	TA corpus			IA corpus		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
appropriate	6	-	1	-	1	1
beneficial	1	1	1	3	2	-
challenging	-	-	1	-	1	-
common	1	1	1	6	-	1
complex	6	1	1	5	-	3
complicated	-	-	-	1	-	3
controversial	2	-	1	2	-	-
core	1	-	-	1	-	-
critical	1	-	2	1	-	-
crucial	3	-	1	1	-	-
difficult	7	-	-	3	-	1
easily	2	-	-	1	-	1
elusive	-	1	-	-	1	-
essential/ essentially	3	-	-	3	1	-
far-reaching	-	-	-	1	-	-
good	-	1	-	-	-	-
helpful / helpfully	1	1	1	-	-	-
important/importantly	19	1	2	10	4	2
inadequate	1	1	-	-	-	1
inextricably	1	-	-	-	-	-
insensitive	-	-	-	1	-	-
interesting	-	1	-	-	-	-
key	3	-	-	6	-	-
little	1	4	-	1	3	4
limited	6	1	-	1	3	-
main	7	-	1	1	-	4
major	4	-	-	2	1	-
multifaceted	-	-	-	1	-	-
necessary/ necessarily	4	1	-	1	2	-

notorious	-	-	-	1	-	-
novel	1	1	-	-	-	2
overlooked	3	-	-	-	-	-
positive / positively	9	-	-	1	1	-
potential	1	-	-	1	-	3
prime	-	-	-	1	-	-
prolific	-	-	-	1	-	-
prominent	-	-	-	1	-	1
reliable	-	-	-	1	-	-
rigorous	-	-	1	-	-	-
salient	1	-	-	1	-	-
sensitive	2	-	-	-	-	4
serious	1	-	-	-	-	-
still	6	1	-	-	2	-
strong	1	-	-	3	1	-
surprising	-	-	-	1	-	-
underexplored	-	2	-	1	-	-
underscored	-	-	-	1	1	-
unexplored	-	2	-	-	-	-
unfortunately	1	-	-	-	-	-
unique	-	-	-	1	-	1
unknown	1	-	-	1	1	-
unsurprising	-	-	-	1	-	-
useful	3	2	2	1	1	-
vital	2	2	-	-	-	-
well	2	1	-	2	-	-
well-known	1	-	-	1	-	-
worth	-	2	-	-	-	-
Total	**115**	**28**	**16**	**73**	**26**	**32**

B2.4 Engagement markers (EG)

Type of engagement markers						
Reader pronouns	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
we	3	-	-	1	-	-
us	1	-	-	2	-	-
our	1	-	-	1	-	-
Total	**5**	**-**	**-**	**4**	**-**	**-**

Type of engagement markers						
Appeals to shared knowledge	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
	21	-	-	10	-	1
Total	**21**	**-**	**-**	**10**	**-**	**1**

Type of engagement markers						
Questions	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
Questions	-	-	-	1	-	-
Total	**-**	**-**	**-**	**1**	**-**	**-**

B2.5 Self mentions (SM)

Type of self-mentions						
Noun	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
the researcher(s)	2	-	1	-	-	-
Total	**2**	**-**	**1**	**-**	**-**	**-**

Type of self-mentions						
First-person pronouns	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
I	-	3	2	2	-	7
we	-	-	1	-	-	13
us	-	-	-	-	-	3
Total	**-**	**3**	**3**	**2**	**-**	**23**

Type of self-mentions						
Possessive adjectives	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
my	-	1	-	-	-	-
our	-	-	-	2	1	15
Total	**-**	**1**	**-**	**2**	**2**	**15**

B3 Metadiacourse nouns

Type of metadiscourse						
Entity	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
action	-	-	-	1	-	-
assumption	-	-	-	1	-	-
belief	-	-	-	3	-	-
claim	-	-	-	1	-	-
concern	-	-	-	-	-	1
doubt	-	-	-	-	-	1
evidence	1	1	-	2	-	-
fact	-	-	1	-	2	1

hope	-	-	-	1	-	-
hypothesis	-	-	1	-	-	1
idea	1	-	-	-	-	-
phenomenon	-	-	-	1	-	-
premise	-	-	-	1	-	-
study	-	-	-	2	-	-
view	-	-	1	-	-	-
Total	**2**	**1**	**3**	**13**	**2**	**4**

Type of metadiscourse						
Attribute	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
context	1	-	1	1	-	1
extent	-	-	-	3	1	2
way	-	2	-	1	1	1
Total	**1**	**2**	**1**	**5**	**2**	**4**

Type of metadiscourse						
Relation	**TA corpus**			**IA corpus**		
	M1	**M2**	**M3**	**M1**	**M2**	**M3**
relationship	-	-	-	-	-	1
Total	**-**	**-**	**1**	**-**	**-**	**-**

BIOGRAPHY

Name	Mr. Natthaphong Sirijanchuen
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	2012 M.A. (Translation and Interpreation)
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