

Characterizing the Rhetorical Structure of MA Thesis Discussion Chapters in ELT Composed by Thai and Native English Students

Received	: April 26, 2020
Revised	: May 13, 2020
Accepted	: June 10, 2020

Niwat Wuttisrisiriporn
Burapha University

Supong Tangkiensirisin
Thammasat University

Abstract

The present study reports on the results of a move-step analysis of MA thesis Discussion chapters in English language teaching (ELT) produced by Thai and native English students. The datasets of Thai and native English MA theses in ELT written in ILrMRD pattern were systematically built. Thirty Thai MA theses were compiled from *ThaiLis Digital Collection* and thirty native English MA theses were collected from *ProQuest Dissertations & Theses*, using purposive sampling technique. All Discussion chapters were coded using the move-step analytical framework proposed by Yang and Allison (2003). Based on the findings of the analysis, both Thai and native English students followed the moves and steps proposed in the analytical framework. However, some differences were identified, especially in the use of Move 6 *Evaluating the study* and Move 7 *Deductions from the research*. The present study captures an overall rhetorical structure of the MA thesis Discussion chapter and move-step options employed by MA student writers. The results of the study also provide some useful implications for academic writing instruction, and may be especially relevant for L2 English student writers.

Keywords: rhetorical structure, MA thesis, discussion chapter, Thai and native English students, ELT

Introduction

English has served as a medium of communication or a lingua franca (ELF) worldwide (Mauranen, 2011). It also plays a significant role in academic activities, for example, teaching, scholarship, and research, not only in English-speaking countries but also in countries with ESL/EFL contexts (Hyland, 2006). In university settings, especially at a postgraduate level, all students are expected to produce good written pieces in response to academic writing tasks assigned (Swales & Feak, 2012). Those written pieces also need to be constructed with effective organization. However, graduate students, native and ESL/EFL speakers alike, have been facing difficulty in composing good academic written

pieces in a well-organized pattern (Grabe & Kaplan, 1996). Hence, in order to respond to such a problem, a number of L2 writing researchers have consistently shown their interest in rhetorical constructions and linguistic elements that characterize academic written genres.

Previous studies on genre or move analysis revealed the results of rhetorical organizations of different (parts of) written text types. Swales' (1981, 1990) studied research articles (RAs) Introduction structure and these are considered influential studies. His research generated his revised Create a Research Space or CARS model, which has been applied in a number of studies (e.g., Cheung, 2012; Kanoksilapatham, 2005; Kwan, 2006; Ozturk, 2007; Samraj, 2002, 2008). Furthermore, a wide variety of text types in various disciplines were selected for academic genre analysis. Abstracts, for example, are an academic written genre which has been extensively investigated by a number of researchers (Cross & Oppenheim, 2006; Promsin, 2006; Ren & Li, 2011; Tseng, 2011). Individual sections of RAs are also target written texts for genre analysis by L2 writing researchers, for example, Introduction section (Lakic, 1997; Samraj, 2002), Literature review section (Jian, 2010), Results section (Yang & Allison, 2003), Discussion section (Holmes, 1997; Yang & Allison, 2003). Complete RAs were also analyzed by some scholars (Kanoksilapatham, 2005; Nwogu, 1997) and the results of the studies showed similarities and differences in the rhetorical organization of those texts analyzed.

It is also acknowledged that MA thesis is another academic written genre compulsory for postgraduate degree completion. Nevertheless, this is a great challenge for all postgraduate students, particularly L2 students, since they are highly expected to compose their thesis/dissertation at a good quality, presenting their thoughts or content of their research study in a logical and coherent way through their theses/dissertations (Council of Graduate Schools in the US, 1991). Both L2 and native English postgraduate students need sufficient assistance for effective thesis writing process, for example, organizing a paragraph, developing ideas, and drawing a conclusion (Dong, 1998). The aforementioned needs have contributed to an increasing number of genre analysis studies looking at different chapters of the thesis.

L2 writing researchers have examined rhetorical structures of individual thesis chapters, for example, Introduction (Bunton, 2002; Cheung, 2012; Samraj, 2008; Wuttisrisiriporn, 2017), Literature review (Kwan, 2006), Discussion (Hopkins & Dudley-Evans, 1988; Rasmeenin, 2006; Salmani-Nodoushan, 2012; Wuttisrisiriporn, 2015). However, it is known that the Discussion chapter is a crucial part of the thesis in which postgraduate student writers report a summary of the research findings and interpret how the findings contribute to current knowledge of their disciplinary community (Basturkman, 2012) in persuasive and argumentative ways (Swales & Feak, 2012). Also, student writers find it hard to compose a good discussion section as they need to provide complex arguments (Arsyad, 2013), and those arguments are expected to effectively convince readers to accept the writers' claims (Parkinson, 2011). Another challenge for L2 postgraduate students pointed out by Min, San, Petras, & Mohamad (2013) is that novice writers from Asian countries have difficulty reporting research results as well as making

and justifying their claims. Thus, it is worth investigating rhetorical structure of the master's thesis Discussion chapter in order to provide useful writing guidelines of the chapter for novice graduate students writers.

Several studies analyzed moves and steps in MA thesis Discussion chapters written by different L1 students. Rasmeenin (2006) found some differences regarding move occurrences between nine MA thesis Discussion chapters in applied linguistics written by Thai students and RA Discussion sections in the same discipline in Yang and Allison (2003). Salmani-Nodoushan (2012) investigated the rhetorical moves of 46 MA thesis Discussion sections in applied linguistics written in English by Iranian students. Then he compared the findings with Rasmeenin (2006). Wasito, Syah, and Harahap (2017) analyzed 20 MA thesis Discussion sections in applied linguistics written by Indonesian postgraduate students, while Massoum and Yazdanmehr (2019) investigated the rhetorical structure of 20 English language teaching (ELT) thesis MA Discussion sections written by Iranian students and another 20 written by native English students. The results of these studies revealed both similarities and differences in move-step occurrences found in MA thesis Discussion chapters composed by different L2 English students.

From the literature review, Rasmeenin (2006) conducted a move-step analysis of thesis Discussion chapters written by Thai MA students. However, the sample size was relatively small (nine Discussion chapters). Furthermore, there has been a dearth of comparative studies that compare how Thai and native English MA students construct their thesis Discussion chapters. The present study, therefore, aims to examine the rhetorical structure of MA thesis Discussion chapters in ELT written in English by Thai and native English students with a larger sample size. Two datasets of 30 MA thesis Discussion chapters written in ILrMRD pattern by the two groups of student writers are purposively sampled. This study aims at answering two research questions: (1) what is the rhetorical structure of MA thesis Discussion chapters in ELT written by Thai and native English students? and (2) to what extent do move and step classifications in ELT thesis Discussion chapters written by Thai MA students differ from those written by native English students? It is hoped that the findings of the present study will be useful for EAP teachers in academic writing instruction. The findings of the study will also help MA students, both Thai and native English writers, in that they can use the moves and steps identified in the study as guidelines to compose their thesis Discussion chapter.

Methods

Compilation of research datasets

The present study's data consisted of two datasets, that is, Thai and native English Discussion chapter datasets. The Thai Discussion dataset (TD) was composed of 30 MA thesis Discussion chapters in ELT written in English by Thai MA students and the native English Discussion dataset (NED) was composed of 30 MA ELT thesis Discussion chapters written by native English students. The 30 Thai MA theses were collected from *ThaiLis Digital Collection*, the online Thai university thesis database, while the native English MA

theses were selected from *ProQuest Dissertations & Theses*, the online thesis-dissertation database of American and Canadian universities. The sizes of TD and NED datasets were composed of 83,601 words and 76,803 words, respectively. To select the respective theses into the datasets, the researchers used purposive sampling technique based on four parameters: L1 background (i.e., English and Thai), thesis structure, types of thesis (theoretical or empirical), and relevant disciplines.

First, each MA thesis must be written by Thai and native English students. Identifying the L1 status of both groups of writers was achieved using their names and affiliations. To address the L1 status of native English writers, student's names needed to indicate an Anglophone origin. Second, the theses must be composed in the traditional five-chapter pattern *ILrMRD*, which comprises Introduction (I), Literature review (Lr), Methodology (M), Results (R), and Discussion (D). In addition, only empirical MA theses were purposively selected into the datasets, while theoretical theses were excluded. Lastly, the focused field of the selected theses is ELT or related fields (e.g., applied linguistics, TESOL). The theses collected were composed during the years of 2010-2015.

Move-step analytical framework for MA theses Discussion chapters

A number of analytical frameworks for move-step analysis of Discussion chapter/section have been proposed by L2 writing researchers (Holmes, 1997; Hopkins & Dudley-Evans, 1998; Kanoksilapatham, 2005; Nwogu, 1997; Peacock, 2002; Yang & Allison, 2003). However, the analytical framework proposed by Yang and Allison (2003) was adopted in the present study.

Table 1. Yang and Allison's (2003) move-step analytical framework for MA thesis Discussion chapters

Moves	Steps
Move 1 – Background information	
Move 2 – Reporting results	
Move 3 – Summarizing results	
Move 4 – Commenting on results	Step 1 Interpreting results Step 2 Comparing results with literature Step 3 Accounting for results Step 4 Evaluating results
Move 5 – Summarizing the study	
Move 6 – Evaluating the study	Step 1 Indicating limitations Step 2 Indicating significance/advantage Step 3 Evaluating methodology
Move 7 – Deductions from the research	Step 1 Making suggestions Step 2 Recommending further research Step 3 Drawing pedagogic implication

There were two main reasons to support the application of Yang and Allison's framework for the move-step analysis. First, Yang and Allison's (2003) framework was the result of the revisions of different analytical frameworks (e.g., Holmes, 1997; Hopkins & Dudley-Evans, 1998; Swales, 1990). The other reason is that this framework was

effectively employed in several studies of move analysis of Discussion sections in the related fields and in different academic genres, for example, RA Discussions (Amnuai & Wannaruk, 2013) and MA Discussions (Rasmeenin, 2006; Salmani-Nodoushan, 2012; Wasito et al., 2017). Therefore, this move-step framework of Discussion section proposed by Yang and Allison (2003) was appropriate for move-step analysis of MA thesis Discussion chapters in ELT for the present study. Table 1 below illustrates the descriptions of moves and steps of the selected framework.

Coding, inter-coder reliability, and data analysis

After the thesis Discussion chapters were compiled, an individual code was assigned to each text in the two datasets. *TD#...* was the unique code for each Thai Discussion chapter, whereas *NED#...* was for native English Discussion chapters. After the datasets were well-prepared for the move-step coding, a subset of the two datasets was selected for coding trial and inter-coder reliability analysis. Then one of the researchers coded all 60 MA thesis Discussion chapters.

To assess the coding reliability of the move-step analysis, a two-hour discussion was conducted in order to promote mutual understanding of the selected move-step framework and agreement of coding procedures. An expert coder, a university lecturer in applied linguistics at a Thai public university and one of the researchers independently coded 20% or six MA thesis Discussion chapters from each dataset (12 chapters in total). The inter-coder reliability was then statistically evaluated employing percentage and Cohen's *k* (Kappa). The Kappa statistic was performed using the SPSS program. Agreement between the two coders was computed with regard to moves, rather than steps, with the same rhetorical purposes. The results of inter-coder reliability analysis are shown in Table 2. This table provides details of code units, units of agreement, and disagreement between the two coders, as well as the *k* value and percentage calculation.

Table 2. Inter-coder reliability analysis

Move	Code Units	Agreement	Disagreement	<i>k</i> Value	Percentage
Move 1 Background information	50	49	1	0.94	98%
Move 2 Reporting results	63	63	0	1.00	100%
Move 3 Summarizing results	31	28	3	0.79	90.32%
Move 4 Commenting on results	65	63	2	0.92	96.92%
Move 5 Summarizing the study	20	17	3	0.69	85%
Move 6 Evaluating the study	17	16	1	0.88	94.12%
Move 7 Deductions from the research	53	51	2	0.87	96.23%
Total	299	287	12	0.87	94.37%

The figures of calculated *k* value above show the agreement level of each move. Despite some discrepancies, the average *k* value 0.87 indicates the very good reliability of the overall coding analysis of individual moves between the two coders (Cohen, 1960; as cited in Orwin, 1994). In addition, 94.37% was the average percentage of the entire inter-

coding reliability measurement. This supports the average k value that the inter-coder reliability was high.

After the inter-coder reliability reached a satisfactory level of agreement, the researcher coded the remaining 48 MA thesis Discussion chapters (24 texts from each dataset). Afterwards, a move-step classification of the individual moves and steps was performed. The move-step classification was conducted to distinguish whether a specific move and step identified in both Thai and native English thesis Discussion chapters were regarded as *obligatory*, *conventional*, or *optional*. Subsequently, all moves and steps were classified into frequency categories depending on the occurrence ranges, following the criteria proposed by Kanoksilapatham (2005). To be considered obligatory, an individual move or step must occur in every thesis Discussion chapter in its dataset ($N = 100\%$). A move or step was categorized as a conventional move if it failed to appear in every thesis Discussion chapter, but it appeared in at least 60% of its dataset ($N \geq 60\%$). The last criterion is that the frequency of a move or step dropped below 60% of its individual dataset was considered optional ($N \leq 60\%$). After the completions of move-step coding, inter-coder reliability assessment, and move-step classification, comparative move-step analyses were conducted to identify similarities and differences between the two datasets.

Findings

All moves and steps found in the analysis were classified by the criteria suggested by Kanoksilapatham (2005) into three classification categories, that is, obligatory, conventional, and optional. Table 3 shows the classification results of the identified moves and steps.

Table 3. Classification of moves and steps identified in the two datasets

Moves/Steps	NED Dataset ($N = 30$)	TD Dataset ($N = 30$)
Move 1 Background information	30 (100%)*	30 (100%)*
Move 2 Reporting results	30 (100%)*	30 (100%)*
Move 3 Summarizing results	26 (86.67%)*	29 (96.67%)*
Move 4 Commenting on results	30 (100%)*	30 (100%)*
Step 1 Interpreting results	29 (96.67%)*	29 (96.67%)*
Step 2 Comparing results with literature	25 (83.33%)*	28 (93.33%)*
Step 3 Accounting for results	22 (73.33%)*	25 (83.33%)*
Step 4 Evaluating results	16 (53.33%)*	4 (13.33%)*
Move 5 Summarizing the study	28 (93.33%)*	27 (90.00%)*
Move 6 Evaluating the study	29 (96.67%)*	15 (50%)*
Step 1 Indicating limitations	27 (90%)*	13 (43.33%)*
Step 2 Indicating significance/advantage	20 (66.67%)*	3 (10%)*
Step 3 Evaluating methodology	16 (53.33%)*	4 (13.33%)*
Move 7 Deductions from the research	30 (100%)*	30 (100%)*
Step 1 Making suggestions	17 (56.67%)*	18 (60%)*
Step 2 Recommending further research	28 (93.33%)*	30 (100%)*
Step 3 Drawing pedagogic implication	13 (43.33%)*	16 (53.33%)*

Note: * = obligatory, ** = conventional, and * = optional

The functions and realizations of every move and step found in both Thai and native English datasets are elaborated below. Examples of each identified move and step are provided. Lexical and linguistic signals representing specific moves and steps in the following examples are also highlighted and bold typed.

Move 2 Reporting results

Move 2 *Reporting results* was employed to present both expected and unexpected research results. Examples of lexical and linguistic signals frequently found were reporting verbs, for example, *showed*, *revealed*, *illustrated*, *found*, in past simple tense, whereas present simple was used less. In addition, when using this move, the students of the two datasets presented their results using numbers, statistical values, figures, graphs, tables, observations, and relevant examples. This move occurred in every Discussion chapter in the two datasets (100%) as an obligatory move. Here are examples of Move 2 found in the analysis.

(3) ***The data in Table 4.4 shows the obtained t-value did not exceed the corresponding critical value at the $\alpha=.05$ confidence level for both groups: $t_{(22)} = 1.96$, $P>.05$.*** (NED#20)

(4) ***The results of the study revealed that both science students and arts students had problems in sentence structure, vocabulary, and reading comprehension.*** (TD#17)

Move 3 Summarizing results

The communicative function of Move 3 *Summarizing results* was to generate a summary of a range of specific results. Both Thai and native English students used this move after Move 2 *Reporting results* and Move 4 *Commenting on results* in order to conclude specific results and comments. Lexical signals found were *to summarize*, *to sum up*, *in summary*, *overall*, to name a few. This move was categorized as a conventional move, since it occurred in 26 native English Discussion chapters (86.67%) and 29 Thai Discussion chapters (96.67%). Examples of this move are presented below.

(5) ***Overall, the Compensatory-2 scheme (calculated by an overall ELPA level of 4 or 5) provided the best congruence at all performance levels within FEP-eligibility on the SBAA for ELL and non-ELL cases.*** (NED#22)

(6) ***In summary, the two hypotheses were accepted. There were significantly higher average scores on the post English reading comprehension test and the post reading self-efficacy questionnaire than on the pre-English reading comprehension test and the pre reading self-efficacy questionnaire.*** (TD#3)

Move 4 Commenting on results

The objective of Move 4 *Commenting on results* was to allow both Thai and native English students to comment on their research findings. This move was considered an obligatory move because it was found in every text in the two sets of data (100%). To

comment on the findings, there were four different steps established: Step 1: *Interpreting results*; Step 2: *Comparing results with literature*; Step 3: *Accounting for results*; and Step 4: *Evaluating results*. The functions of each step of this move and relevant examples from the two datasets are shown as follows:

Step 1: Interpreting results

Both Thai and native English students used Move 4 Step 1: *Interpreting results* to make claims arising from the research results. When employing this step, both groups of students used words showing certainty or tentativeness, for example, *indicate*, *seem*, *suggest*, *assume*, *imply*, and modal auxiliaries, for example, *would*, *could*, *might*, *may*. The linguistic element mostly found in the two datasets was present simple tense. Both active and passive forms were also realized in this step. This step occurred in 58 texts (29 chapters in each dataset), and its occurrence frequency was 96.67%, and thus regarded as a conventional step. Here are related examples.

(7) ***It is assumed that the explicit instruction the participant received on English phonology may have contributed to his accuracy in the pronunciation of English specific sounds.*** (NED#15)

(8) ***When considering that the participants did the listening activities most often, it implies that the participants may not plan to learn from listening activities that they reported doing the most frequently.*** (TD#5)

Step 2: Comparing results with literature

The aim of Move 4 Step 2: *Comparing results with literature* was to compare research findings with previous studies in order to support their deductions or research hypotheses, as seen in the examples 9 and 10 below. This step showed both consistency and difference of the research findings with previous research. As a conventional step, the frequencies of Move 4 Step 2 were 93.33% (n = 28) and 83.33% (n = 25) in TD and NED datasets, respectively. Frequently used lexical signals discovered were *(not) be similar to*, *(not) be consistent with*, *according to*, *(not) yield support to*, and *confirm the findings of*. Additionally, references and citations to previous studies were frequently found.

(9) ***Even without the expectation to use technology, one teacher from the US overcame her fear and took it on herself to learn and to attend more professional development, which confirms the findings of Dwyer, Ringstaff & Sandholtz (1996).*** (NED#11)

(10) ***This finding is consistent with Chumpavan (2000), who investigated the metacognitive strategies used by Thai students studying at Illinois State University in the U.S.*** (TD#18)

Step 3: Accounting for results

As seen in the examples 11 and 12, the communicative purpose of Move 4 Step 3: *Accounting for results* was to give reasons for surprising or unexpected research findings different from previous literature. This step occurred in 25 Thai Discussion chapters

(83.33%) and 22 native English Discussion chapters (73.33%); hence, it functioned as a conventional step. Some lexical signals referring to this step were *because, due to the fact that, may be caused from, be attributed to* and *can be explained by*.

(11) *Chen, who was the only non-Spanish speaker, never spoke to other students about his difficulties and asked them for help, **which may be explained with the reason that he was not able to use his L1 as much as other students did.*** (NED#6)

(12) ***This may be because of the limitation of the available English language resources for the productive skill activities in their environment.*** (TD#10)

Step 4: Evaluating results

Both Thai and native English students used Move 4 Step 4: *Evaluating results* to comment on their research findings. The communicative purpose of this step was to make a claim by the writers about the generalizability of the particular findings. Compared to the aforementioned first three steps of Move 4, this step occurred less in the two datasets since it was found in 16 native English Discussion chapters (53.33%) and in only 4 Thai Discussion chapters (13.33%). Thus, this was an optional step employed to comment on research findings by the two groups of students. Some lexical signals found in the analysis included *it remains unknown, due to the limited scope of the study, it is not clear*. Examples 13 and 14 illustrate the communicative functions of this step.

(13) ***It remains unknown whether this result indicates that teachers were interested in differentiating speech/language concerns from second language acquisition.*** (NED#10)

(14) ***It should also be mentioned here that due to the limited scope of the study, it is not clear whether the participants in this study had a clear vision of what intelligibility means in relation to specific language areas and skills.*** (TD#3)

Move 5 Summarizing the study

As seen in the examples 15 and 16, Move 5 *Summarizing the study* provided readers with a brief account of main points of the overall research study. Its occurrence frequencies were 93.33% (n = 28) in NED dataset and 90% (n = 27) in TD dataset. It was thus regarded as a conventional move. Lexical signals representing this move were likely to be similar to those shown in Move 3 *Summarizing results*, for example, *in conclusion, in sum, general conclusions*. However, one significant difference between the two moves was that Move 5 stated a summary regarding the whole results, while Move 3 presented a particular finding.

(15) ***This corpus-based lexico-grammatical study aimed to identify the linguistic factors contributing to the appearance of the mandative subjunctive structure in academic writing in English. It was concluded through various quantitative and qualitative analyses that the use of the lexical items under investigation here (ask, demand, direct, insist, order, propose, recommend, request, require and suggest) does not alone trigger the mandative subjunctive, rather that the factors involved in triggering the structure are***

multiple and complex, going beyond linguistic and into the realms of situational, social, psychological, and pragmatic factors. (NED#21)

(16) ***This study serves as one of the research studies that explore the area of instruction for reading English as a foreign language. It established a new reading framework to enhance students' reading comprehension and their opinions.*** (TD#9)

Move 6 Evaluating the study

It was found that both Thai and native English students employed Move 6 *Evaluating the study* to evaluate their overall study by remarking limitations or significance of the study as well as evaluating the methodology of their research. This move was conventional in NED dataset as it was present in 29 native English Discussion chapters (96.67%). However, it was regarded as an optional move in TD dataset since it occurred in 15 Thai Discussion chapters (50%). It was further found that both groups of students employed all three steps in Move 6 as proposed by Yang and Allison (2003), including Step 1: *Indicating limitations*, Step 2: *Indicating significance/advantage*, and Step 3: *Evaluating methodology*. Functions and examples of each step are presented below.

Step 1: Indicating limitations

As can be seen in the examples 17 and 18, limitations of the research were reported through the use of Move 6 Step 1: *Indicating limitations*. This step was classified as a conventional step in NED dataset (90%), while it functioned as an optional step in TD dataset (43.33%). Lexical signals discovered included *the limitation of the study*, *(the) lack (of)*, *only*, *limited to*.

(17) ***The most important limitation of the present study lies in the fact that the number of the participants was relatively small.*** (NED#4)

(18) ***This research was a case study and the results were not intended to be generalized.*** (TD#13)

Step 2: Indicating significance/advantage

The communicative purpose of Move 6 Step 2: *Indicating significance/advantage* was to point out strengths and advantages of research. This step was classified as an optional step as it was found in only three Thai Discussion chapters (10%), while it was a conventional step since it occurred in 20 native English Discussion chapters (66.67%). Linguistic signals, for example, *useful insights into*, *helpful advice*, *shed light on* were identified as possible signals for this step. The examples 19 and 20 show the communicative purpose of this step.

(19) ***Despite the design and limited size of the study, the obtained results offer useful insights into the current state of EST in one context in Germany.*** (TD#2)

(20) ***Based on these findings, the present study gives three empirical points and helpful advice to caregivers on how children can learn a language faster.*** (NED#11)

Step 3: Evaluating methodology

Move 6 Step 3: *Evaluating methodology* provided an evaluation in terms of strengths or drawbacks of the research methodology. It was realized as an optional step in both TD and NED datasets since the occurrence frequencies were 53.33% and 13.33%, respectively. Examples of lexical signals representing this step included *limitation of the present study, tool, model, and approach*. See examples 21 and 22.

(21) ***The most important limitation of the present study lies in the fact that the number of the participants was relatively small. Thus, the current investigation did not go beyond the four participants' perceptions at one university, which emphasizes the importance of recognizing that the results of this study cannot be generalized.*** (NED#14)

(22) Finally, ***this study used purposive sampling design which decreases the generalizability of the findings.*** (TD#16)

Move 7 Deductions from the research

Both Thai and native English students explained how their research could contribute to their disciplinary knowledge using Move 7 *Deductions from the research*. This move was classified as an obligatory move since it appeared in all Discussion chapters in the two datasets (100%). The three different steps referring to this move included Step 1: *Making suggestions*, Step 2: *Recommending further research*, and Step 3: *Drawing pedagogical implications*. Here are functions and some examples of each step in Move 7.

Step 1: Making suggestions

The examples 23 and 24 represent the communicative purpose of Move 7 Step 1: *Making suggestions*. This step was used by the students to describe a significant contribution to the established knowledge in the field. Also, the students proposed solutions or guidelines in order to respond to the problems mentioned in their study. This step was optional in NED dataset as it was found in 17 texts (56.67%). However, it was a conventional step since it occurred in 18 Discussion chapters in TD dataset (60%). Lexical signals found were *it is necessary that, it is recommended that, should, need*, and so on.

(23) ***For the inferences needed for high-stakes decisions, the ELPA classification system needs to be one that accurately and consistently indicates when ELL students have reached a level of English-language proficiency which can be adequately supported with the resources of the general education or gifted classroom.*** (TD#22).

(24) ***Therefore, school administrators should provide enough materials in learning and teaching for both students and teachers.*** (NED#8)

Step 2: Recommending further research

Move 7 Step 2: *Recommending further research* was used by the writers to provide suggestions for further research. The writers often used this step after indicating some limitations of their study using Move 6 Step 1: *Indicating limitations*. All Thai students (100%) adopted this step in their Discussion chapter; nevertheless, this step was

conventional in NED dataset since its frequency of occurrence was 93.33%. *Further study/research* and *should* were examples of the lexical signals frequently found in the two datasets. See examples 25 and 26.

(25) *It would be very **interesting to conduct a similar study** targeting other Saudi dialects with subjects in both the U.S. and subjects in Saudi Arabia and compare the findings of both studies.* (NE#13)

(26) **In future research**, a different scheme of classification **should be used** to analyze errors found in movies. (TD#6)

Step 3: Drawing pedagogic implication

The purpose of Move 7 Step 3: *Drawing pedagogical implications* was to provide implications regarding pedagogical concerns deduced from research, as presented in the examples 27 and 28. This step was employed to emphasize the necessities and recommendations for pedagogical changes. Move 7 Step 3 was found optional in both datasets as it occurred in 13 native English Discussion chapters (43.33%) and in 16 Thai Discussion chapters (53.33%). Lexical signals, namely *might be useful*, *can be adopted* and *would be beneficial for*, were found in the analysis.

(27) *Since the educational language environment plays an important role in learning collocations, as shown in this study, **it may be useful to employ authentic texts in the teaching of collocations in an EFL context.*** (NED#19)

(28) *Firstly, **teachers should be careful** while selecting materials for the instruction.* (TD#9)

Overall, it is clearly seen from the results of the move-step analysis that both Thai and native English students employed every move and step proposed in Yang and Allison's (2003) analytical framework. However, some differences were found especially in the use of Move 6 *Evaluating the study* and Move 7 *Deductions from the research*. Most native English students evaluated their study employing Move 6 Step 1: *Indicating limitations* and Move 6 Step 2: *Indicating significance/advantage* as conventional steps, whereas Thai students used these two steps in Move 6 less frequently. Furthermore, all Thai and native English students used Move 7 *Deductions from the research* as an obligatory move. However, the frequency of occurrences of the three steps in Move 7 varied in the two datasets.

Discussion and Conclusion

This study investigated the rhetorical structure of MA thesis Discussion chapters in ELT written by Thai and native English students. The move-step analysis was performed using Yang and Allison's (2003) analytical framework and all of the identified moves and steps were then classified as *obligatory*, *conventional*, or *optional*, following the move-step classification criteria suggested by Kanoksilapatham (2005). The results of move-step analysis revealed that Moves 1, 2, 4, and 7 were categorized as obligatory moves as they

were found in all thesis Discussion chapters in the two datasets. It can be interpreted that both Thai and native English MA students considered these moves as must-write moves when discussing the results of their research. Nevertheless, other moves, both conventional and optional, were also found meaningful in thesis Discussion chapters.

The results of the current study are in line with the findings of Rasmeenin (2006). It was shown in her study that Move 1 *Background information* was found to be obligatory as it occurred in every thesis Discussions written by Thai MA students. However, the findings of the studies of Salmani-Nodoushan (2012) and Massoum and Yazdanmehr (2019) reported that Iranian MA students employed Move 1 as an conventional move (93.48% and 95%, respectively), while Indonesian MA students used it less frequently as an optional move (40%) in order to restate general information of research (e.g., research objectives, procedural information) for readers (Wasito et al., 2017). In spite of differences in the use of this move in terms of occurrence frequency, it can be inferred from the findings that using Move 1 can be a good writing strategy for MA students as novice researchers to provide overall information of the research at the beginning of their thesis Discussion chapter.

Consistent with previous studies (Rasmeenin, 2006; Salmani-Nodoushan, 2012; Wasito, Syah & Harahap, 2017), the present study revealed that Thai and native English students used Move 2 *Reporting results* and Move 4 *Commenting on results* as obligatory moves. These findings are also consistent with some past research with a focus on RA Discussion sections. Move 2 *Reporting results* or a move with a different title but containing the same communicative purpose of presenting research results was also found obligatory in RA Discussion sections, for example, *Statement of results* and *(Un)expected outcome* in Hopkins and Dudley-Evans's (1988) study and *Consolidating results* in Kanoksilapatham's (2005) study. Similarly, Move 4 *Commenting on results* was regarded as an obligatory move in RA Discussion sections found in several studies (e.g., Annuai & Wannaruk, 2013; Kanoksilapatham, 2005; Yang & Allison, 2003) in which the writers commented on their research findings. It can be noticed from the move analysis that a close relationship between Move 2 and Move 4 was found since co-occurrences of Move 2 and Move 4 existed; this tends to be a widespread practice in MA thesis Discussions in ELT. That is, the two groups of MA students presented their research findings through Move 2 and then commented on those findings using different steps in Move 4, namely Step 1: *Interpreting results*, Step 2: *Comparing results with literature*, Step 3: *Accounting for results*, and Step 4: *Evaluating results*.

Additionally, the present study showed that Move 3 *Summarizing results*, Move 5 *Summarizing the study*, and Move 6 *Evaluating the study* in the native English dataset were conventional, similar to the findings of Salmani-Nodoushan (2012) and Massoum and Yazdanmehr (2019), since the frequency of occurrences of these three moves was very high (86.67%, 93.33%, and 96.67%, respectively). However, it is consistent with Wasito et al. (2017) who found that Move 3 and Move 5 were frequently used by the Thai MA students as conventional moves (96.67% and 90%, respectively), while Move 6 was found optional as it appeared in only half of the entire TD dataset (50%). It is interesting to notice from

the findings that the Thai MA students, unlike the native English students, employed Move 6 to evaluate their research study less frequently. This could be a cultural aspect in that Thai students were less likely to evaluate their study using different steps in Move 6, that is, Step 1: *Indicating limitations*, Step 2: *Indicating significance/advantage*, and Step 3: *Evaluating methodology*. Instead of using Move 6 with high frequency, the Thai MA students made deductions from their study through their use of various steps in Move 7, especially Step 2: *Recommending further research* (obligatory) and Step 1: *Making suggestions* (conventional), with greater frequency than the native English students did, although Move 7 was found obligatory in the two datasets.

As the above discussion shows, the present study indicates some differences in the adoption of moves and steps in MA thesis Discussion chapters composed by Thai and native English students. One significant difference is that Thai students were less flexible than native English students about evaluating their research using the three steps in Move 6. However, Thai students would rather use the steps in Move 7, particularly Step 1 and Step 2, with greater frequency to propose suggestions from their research and for future studies to be conducted. At this juncture, these differences reflect some current practices and cultural homogeneity of thesis writing between Thai and native English students. One possible practice relates to suggestions or feedback from thesis supervisors, which can shape the rhetorical structure of a thesis Discussion chapter. As novice researchers, MA students are likely to follow their thesis advisor's suggestions for thesis revision (Wuttisrisiriporn, 2017), which can result in different uses of moves and steps in their MA Discussion chapters. Furthermore, from our observation, both groups of MA students, especially Thai students, tended to consult successful MA theses submitted to their institutions or others on ideas or writing styles used in order to produce their Discussion chapters in a similar way. This suggests that the MA students needed to produce a good quality thesis so that they can be accepted into their academic community (Hyland, 2011).

To conclude, Thai and native English MA students followed the move-step structure of the Discussion section proposed by Yang and Allison (2003), although some differences regarding the move-step occurrences and classifications were identified in the research data. The findings of the study shed light on insightful pedagogical implications regarding the rhetorical structure of MA thesis Discussion chapters in ELT. EAP teachers can be aware of the use of writing strategies in terms of moves and steps of thesis Discussion chapter when training their postgraduate students how to compose an MA thesis Discussion chapter with effective organization.

Recommendations for Future Research

The present study looked at the rhetorical structure of MA thesis Discussion chapter. Linguistics features in terms of grammatical structures and vocabulary (e.g., collocations, metadiscourse features) used within each move and step are interesting subjects to be investigated. Also, disciplinary variation can be another aspect to be included for analysis in future research.

Acknowledgements

This study is partly supported by a thesis writing grant allocated by the Language Institute, Thammasat University, Thailand. Our sincere thanks also go to Assistant Professor Dr. Ora-Ong Chakorn for her assistance as a second coder of the data. Finally, we acknowledge the valuable input of two anonymous reviewers and of the editor-in-chief of NIDAJLC.

The Authors

Niwat Wuttisrisiriporn is a lecturer of English at the Language Institute, Burapha University, Thailand. He is now undertaking a PhD in Applied Linguistics at Victoria University of Wellington, New Zealand. His research interests include second language writing, vocabulary teaching and learning, English corpus linguistics, and ESP. He can be contacted at niwatw@go.buu.ac.th.

Supong Tangkiengsirisin is an Associate Professor in Applied Linguistics at the Language Institute, Thammasat University, Thailand. He has a doctoral degree in English Studies from the University of Nottingham, UK. His current research interests are in English written discourse, second language writing, and ESP.

References

- Amnuai, W., & Wannaruk, A. (2013). Investigating move structure of English applied linguistics research article discussions published in international and Thai journals. *English Language Teaching*, 6, 1–13.
- Arsyad, S. (2001). *Rhetorical structure analysis of the Indonesian research articles* [Unpublished doctoral dissertation]. The Australian National University, Canberra, Australia.
- Basturkmen, H. (2012). A genre-based investigation of discussion sections of research articles in dentistry and disciplinary variation. *Journal of English for Academic Purposes*, 11, 134–144.
- Bunton, D. (2002). Generic moves in PhD theses introductions. In J. Flowerdew (Ed.), *Academic discourse* (pp.57–75). Harlow, UK: Longman.
- Cheung, Y. (2012). Understanding the writing of thesis introductions: An exploratory study. *Procedia - Social and Behavioral Sciences*, 46, 744–749.
- Council of Graduate Schools in the US (1991). *The role and nature of the doctoral dissertation: A policy statement*. <https://files.eric.ed.gov/fulltext/ED331422.pdf>
- Cross, C., & Oppenheim, C. (2005). A genre analysis of scientific abstracts. *Journal of Documentation*, 62, 428–446.
- Dong, Y. (1998). Non-native graduate students' thesis/dissertation writing in science: Self-reports by students and their advisors from two U.S. institutions. *English for Specific Purposes*, 17, 369–390.

- Grabe, W., & Kaplan, R. (1996). *Theory and practice of writing: An applied linguistic perspective*. London, UK: Longman.
- Holmes, R. (1997). Genre analysis, and the social sciences: An investigation of the structure of research article discussion sections in three disciplines. *English for Specific Purposes*, 16, 321–337.
- Hopkins, A., & Dudley-Evans, T. (1988). A genre-based investigation of the discussion sections in articles and dissertations. *English for Specific Purposes*, 7, 113–121.
- Hyland, K. (2006). Disciplinary differences: Language variation in academic discourses. In K. Hyland & M. Bondi (Eds.), *Academic discourse across disciplines* (pp.17–45). Bern, Switzerland: Peter Lang.
- Hyland, K. (2011). Learning to write: Issues in theory, research, and pedagogy. In R. M. Manchón (Ed.), *Learning-to-Write and Writing-to-Learn in an Additional Language* (pp. 17–36). Philadelphia, PA: John Benjamins.
- Jian, H. (2010). The schematic structure of literature review in research articles of applied linguistics. *Chinese Journal of Applied Linguistics*, 33, 15–27.
- Kanoksilapatham, B. (2005). Rhetorical structure of biochemistry research articles. *English for Specific Purposes*, 24, 269–292.
- Kwan, B. (2006). The schematic structure of literature reviews in doctoral theses of applied linguistics. *English for Specific Purposes*, 25, 30–55.
- Lakic, I. (1997). Genre analysis of article introductions in economics. *ASp. la revue du GERAS*, 15–18, 409–426.
- Massoum, Y. H., & Yazdanmehr, E. (2019). A genre-analysis of the discussion section of Iranian and English ELT theses: A comparative study. *Theory and Practice in Language Studies*, 9, 1611–1623.
- Mauranen, A. (2011). English as the lingua franca of the academic world. In D. Belcher, A. Johns, & B. Paltridge (Eds.), *New directions in English for specific purposes research* (pp. 94–117). Ann Arbor, MI: University of Michigan Press.
- Min, L. H., San, P. H., Petras, Y. & Mohamad, A. R. (2013). Novice writers in Asian academia: Insights on writing issues. *3L: Language Linguistics Literature, Southeast Asian Journal of English Language Studies*, 19(3), 47–60.
- Nwogu, K. (1997). The medical research paper: Structure and functions. *English for Specific Purposes*, 16, 119–138.
- Orwin, R. G. (1994). Evaluating coding decisions. In H. Cooper & L. Hedges (Eds.), *The handbook of research synthesis* (pp. 139–162). New York, NY: Russell Sage Foundation.
- Ozturk, I. (2007). The textual organisation of research article introductions in applied linguistics: Variability within a single discipline. *English for Specific Purposes*, 26, 25–38.
- Parkinson, J. (2011). The discussion section as argument: The language use to prove knowledge claims. *English for Specific Purposes*, 30, 164–175.
- Peacock, M. (2002). Communicative moves in the discussion section of research articles. *System*, 30, 479–497.

- Promsin, P. (2006). An analysis of moves and modality in English engineering abstracts. *NIDA Journal of Language and Communication*, 11(1), 43–61.
- Rasmeenin, C. (2006). *A structural move analysis of MA thesis discussion sections in applied linguistics* [Unpublished master's thesis], Mahidol University, Bangkok, Thailand.
- Ren, H., & Li, Y. (2011). A comparison study on the rhetorical moves of abstracts in published research articles and master's foreign languages theses. *English Language Teaching*, 4, 162–166.
- Salmani-Nodoushan, M. A. (2012). A structural move analysis of discussion sub-genre in applied linguistics. *DACOROMANIA*, 17, 199–212.
- Samraj, B. (2002). Introductions in research articles: Variations across disciplines. *English for Specific Purposes*, 21, 1–17.
- Samraj, B. (2008). A discourse analysis of master's theses across disciplines with a focus on introductions. *Journal of English for Academic Purposes*, 7, 55–67.
- Swales, J. (1981). *Aspects of article introductions*. Aston ESP Research Reports no. 1. Birmingham, UK: University of Aston.
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. New York, NY: Cambridge University Press.
- Swales, J., & Feak, C. (2012). *Academic writing for graduate students: Essential tasks*. Ann Arbor, MI: University of Michigan Press.
- Tseng, F. (2011). Analyses of move structure and verb tense of research article abstracts in applied linguistics. *International Journal of English Linguistics*, 1(2), 27–39.
- Wasito., Syah, S. A., Harahap, A. (2017). Stating and defending new knowledge claim: A rhetorical analysis on the discussion section of English master thesis by Indonesian EFL learners. *IJEE (Indonesian Journal of English Education)*, 4, 188–207.
- Wuttisrisiriporn, N. (2015). *Comparative rhetorical structure of master's thesis discussion chapters in ELT written by NS and NNS students* [Unpublished Master's thesis]. Thammasat University, Bangkok, Thailand.
- Wuttisrisiriporn, N. (2017). Comparative rhetorical organization of ELT thesis introductions composed by Thai and American students. *English Language Teaching*, 10, 1–14.
- Yang, R., & Allison, D. (2003). Research articles in applied linguistics: Moving from results to conclusions. *English for Specific Purposes*, 22, 365–385.