
**AN ANALYSIS OF MOVES IN INTRODUCTIONS IN
INTERNATIONAL AND THAI JOURNAL RESEARCH ARTICLES**

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Abstract

The schematic organization of research articles in terms of moves and steps has attracted extensive attention in genre study, and the focus of move-based analysis is on the hierarchical schematic structures of texts. The primary aim of this study is to compare the rhetorical moves in English research article introductions in Applied Linguistics as published in local Thai journals with those published in international journals. The comparison was made between 20 local and 20 international research article introductions selected from seven refereed local Thai journals and from seven international journals. These research article introductions were analyzed based on Swales' (2004) model. The results indicated that all three moves, namely, establishing a territory, establishing a niche and presenting the present work, were used in both datasets, but there was a slight difference in their frequencies of occurrence. As for the realization of the moves, the two corpora used different steps.

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Furthermore, move cyclicity was found in both corpora. The findings of this study provide a picture of how research article introductions of the two corpora are generally written. This may lead to pedagogical implications for teaching students how to write English language research article introductions in Applied Linguistics.

Introduction

One of the genre-based approaches used to identify the structure of research articles (RAs) is move analysis and it has now become an influential method. 'Move' means a discoursal segment that performs a particular communicative function (Swales, 2004). The focus of move analysis is on the hierarchical schematic structures of texts (Nwogu, 1997). Move as defined by Nwogu is 'a text segment made up of a bundle of linguistic features (lexical meaning, propositional meanings, illocutionary forces, etc.) which give the segment a uniform orientation and signal the content of discourse in it' (p. 122). Another definition made by Connor, Upton and Kanoksilapatham (2007) is that a move represents semantic and functional units of texts that have specific purposes. Similarly, in Yang and Allison's (2003) view, a move 'enables the categorization of chunks of text in terms of their particular communicative intentions' (p. 370). In the light of these definitions, it can be said that a move is a semantic unit that is linked to the writer's purpose.

Much research has been devoted to the notion of analyzing the research article genre using the move-based approach. Among these studies, some focus on particular research sections such as the introduction (e.g. Jogthong, 2001; Samraj, 2002; Swales, 1990), methods (Lim, 2006), results (e.g. Brett, 1994; Thompson, 1993; Williams, 1999), or discussion (e.g. Fallahi & Erzi, 2003; Holmes, 1997; Yang & Allison, 2003), whereas others analyze all the four sections or 'IMRD' (Introduction, Methods, Results, and Discussion) patterns (e.g. Kanoksilapatham, 2003, 2007; Nwogu, 1997; Pho, 2008; Posteguillo, 1999;). It can be seen, therefore, that analyzing RA

sections using a move-based approach has attracted many researchers.

However, among RA sections, the introduction has received special attention, becoming one of the most thoroughly researched areas. This may be due to the fact that the introduction section has been considered to be an important section which is used to attract readers (Duszak, 1994; Swales & Feak, 2004). However, it is widely recognized that introductions are difficult to write and troublesome for both native and non-native speakers (e.g. Flowerdew, 1999; Pupipat, 1998; Swales, 1990; Swales & Feak, 2004). This is because four decisions need to be made when writing introductions (Swales, 1990). These include decisions on the appropriate amount and type of background knowledge, the authoritative versus the sincere stance, the winsomeness of the appeal to readership, and the directness of the approach. Furthermore, the difficulty is related to disciplinary and cross-linguistic variations (e.g. Brett, 1994; Duszak, 1994; Jalilifa, 2010; Ozturk, 2007; Samraj, 2002; Swales & Feak, 2004; Valero-Garces, 1996). In other words, in order to express the same meaning, different speakers of a language will possibly use a different language form.

Some comparative studies (e.g. Cmejrkova (1996, as cited in Jogthong, 2001); Arvay & Tanko, 2004; Hirano, 2009; Jalilifar, 2010; Loi, 2010; Loi & Evans, 2010; Park, 2004; Taylor & Cheng, 1991) also found significant rhetorical variations in RA introductions. Based on these studies, the rhetorical structure of RA introductions produced by native and non-native writers tends to be different. For example, in Park's (2004) study, there were some marked differences in the RA introductions written by native and non-native (Korean) authors. That is to say, compared to the native authors, the Korean authors preferred to establish a niche by stating a problem in the real world more than the native authors, and also, they claimed the centrality of their studies and summarized the principal findings less frequently than native authors do. In another study, which compared the English introduction sections of RAs written by Czech scholars,

Cmejrkova (1996, as cited in Jogthong, 2001) found that language signals and strategies used for presenting moves were different from those described in Swales' study. Czech scholars were reluctant to commit themselves early on to an announcement of the purpose of the studies and preferred an indirect declaration.

Another interesting point in a comparative analysis was presented in research carried out by Taylor and Cheng (1991). Their study aimed to compare the RA introductions written by three groups of physicists (English native speakers writing in English, Chinese writing in English, and Chinese writing in Chinese). The two Chinese groups tended to write relatively short introductions and had fewer cited references than the English native speakers. The two Chinese groups used a less elaborate structure compared to the English native writers. Socio-political and cultural aspects were also factors influencing the rhetorical structures employed in the sampled RA introductions. In a study which compared the rhetorical move structure of English RA introductions in the field of Applied Linguistics that were published in local Iranian and international journals in three related disciplines (ESP, EGP, and DA) by following Swales (2004) framework, Jalilifar (2010) found that despite some consistency in the international corpus, there emerged marked differences in utilizing second and third moves in international articles. Move 2 was frequently found in local RA introductions in EGP but it was infrequent in local ESP and Move 3 was dominant in the international DA corpus. The results from these studies have confirmed that the rhetorical structures produced by native and non-native English speakers were different in terms of the frequency and sequence of moves. Some culture-specific factors were considered which reflected these differences.

Publishing in English is a way to gain international recognition. Due to the fact that English has been recognized as the international language of research and scholarship, not only native but also non-native English speakers are now communicating in written English. The dominance of English as the academic lingua

franca has emerged and influenced all disciplines. When writing in English, writers must acquire not only general writing skills but also generic knowledge, which is a necessity for academic writers (Bhatia, 1999). This means that although applied linguistic writers have a good command of general English, a lack of generic types still makes producing research articles difficult. In addition, it is widely acknowledged that writing and publishing English research articles is also one of the requirements in many academic areas in countries where English is not the official language such as in Thailand. To our knowledge, there are a limited number of studies comparing the rhetorical moves of English RA introductions published in local and international journals. In the Thai context, where the present study was conducted, some studies (e.g. Jogthong, 2001; Kanoksilapatham, 2007) analyzed RAs written by Thai writers published in local Thai journals, however their corpora used RAs written in Thai. This brings about the focus of this study, which aims to compare the move patterns of RA introductions written in English and published in two different contexts (Thai journals and international journals). The comparison is expected to answer the following questions:

- (1) What is the rhetorical move organization of introduction sections of English applied linguistic research articles published in local Thai and international journals?
- (2) What are the similarities and differences between English applied linguistic research article introductions published in local Thai and international journals?

Method

Data Collection

Two corpora were used in the present study: the international corpus and the Thai corpus. The international corpus included 20 English research article introductions which were randomly selected from seven international journals, including *Applied Linguistics*, *English for Specific Purposes*, *Journal of Second Language Writing*, *Modern Language Journal*, *TESOL Quarterly*, *Studies in Second Language Acquisition*, and *Journal of Pragmatics*. The selected

articles were written by authors of various nationalities. The selection of the journals is based on the ranking of journals in the Journal Citation Reports published by the Institute for Scientific Information (ISI). Using a broad range of subject categories in the Journal Citation Reports ensures that the selected journals are from the world's leading scholarly journals. These journals were selected according to their impact factor as presented in the year 2009.

The Thai corpus, on the other hand, consisted of 20 research article introductions in Applied Linguistics written in English by Thai writers. The selected articles were taken from seven peer reviewed journals published by universities in Thailand, including The Journal, Journal of Humanities Naresuan University, Humanities and Social Sciences, PASAA, Humanities Journal, Silpakorn University International Journal, and Journal of Humanities & Social Sciences. Due to a limited number of English RAs in the field of Applied Linguistics, the Thai corpus was chosen based on purposive sampling. These journals are listed in the Thai-Journal Citation Index Centre (TCI), which can be accessed from the website (http://www.kmutt.ac.th/jif/public_html/). It should be noted that each set of the articles used in the present study is drawn from a corpora of 60 articles in the standard format (IMRD).

The reasons for the selection of the RA introductions in the field of Applied Linguistics were due to the fact that this particular field is an area of particular interest for pedagogical reasons (Yang & Allison, 2004), and it is also an under-explored area, especially in relation to English language teaching and learning. Thus, raising an awareness of genre features becomes directly relevant as part of the disciplinary content of Applied Linguistics.

Framework of Move Analysis

After selecting the RA introductions for the two corpora, RA introductions from each corpus were separately codified (T1-T20 for the Thai corpus, and I1-I20 for the international corpus). The revised CARS model (Swales, 2004) was utilized for the analysis. This move

model is considered to be the most comprehensive framework since the CARS model has been modified according to the criticism made by active researchers in the literature (e.g. Antony, 1999; Bhatia, 1993; Samraj, 2002). After revision, it can be confidently claimed that the new version is the strongest version, as stated by Ozturk (2007) who confirmed that this new version can successfully account for most of the limitations mentioned by researchers with regard to the previous version. Also, Move 3 (Presenting the present work) of the new version (2004) provides a more explicit functional label than that in the previous version (Loi & Evans, 2010). The Swales CARS (2004) model is delineated in Figure 1.

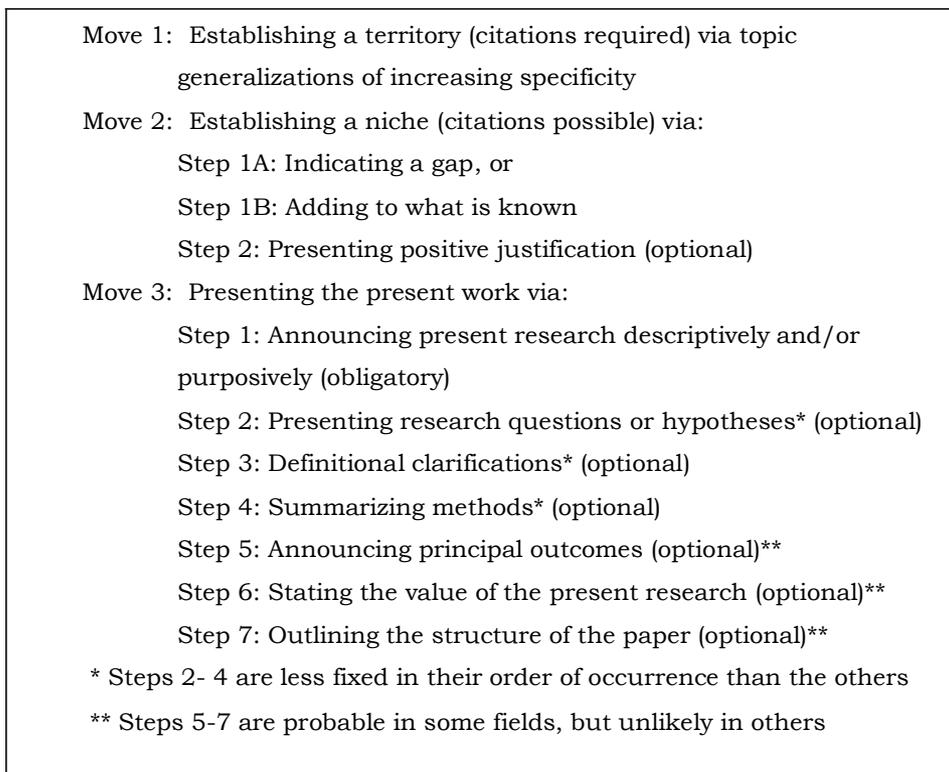


Figure 1: Swales' revised CARS model for the introduction of research articles (2004)

Analysis Procedure

The major concern of this study was to find out the possible differences or similarities at the level of the rhetorical move patterns between the two corpora. Therefore, the notion of communicative purpose was central to the analysis of the RA introductions. However, there were cases where the communicative purpose of a unit of text was not self-evident, where multiple functions were served in the context, or one sentence contained two moves. In such cases, following previous studies (e.g. Holmes, 1997; Ozturk, 2007; Saz-Rubio, 2011), these were assigned to the move and step that appeared to be more salient. In addition, to ensure the reliability of the move analysis, two coders who had expertise in coding move analyses were employed. In order to measure the index of inter-coder reliability, a percentage of the agreement rate (Owin, 1994 as cited in Kanoksilapatham, 2003) was used, which should be one hundred percent. There was a discussion between coders when there was disagreement about the coding of a particular move unit. In addition to inter-rater reliability which was examined through the use of two coders, intra-rater reliability was also taken into account (Jalilifa, 2010; Mahzari & Maftoon, 2007). To this end, a sample of 20 (10 from each corpus) was extracted out of the two sets of introductions and was re-analyzed by the first researcher a month after the first coding. The frequency of each move in each RA introduction was recorded in order to verify the extent to which a particular move was used. The criteria for justifying and classifying the frequency of each move were defined. Similar to Kanoksilapatham's (2005) study, the cut-off point for move classification used in the present study was 60%. Three categories are used in the current study. A move with one hundred percent occurrence (occurring in every RA introduction) is recognized as an obligatory move. If the occurrence of a move is below 60 %, it is considered as optional, and if the occurrence ranges from 60-99%, a move will be classified as conventional. In the process of move analysis, it is possible to find new moves or steps. If this is the case,

they will not be considered as new move(s) / step(s) unless they have occurred with about 50% regularity in a corpus (Nwogu, 1997).

Results

1. The Rhetorical Moves of Research Article Introductions in the Two Corpora

Three moves proposed in Swales' (2004) model were found in the two corpora (see Table 1). The results in terms of the frequency of occurrence of moves and steps for the two datasets are shown in Table 1.

Table 1: Frequency of Moves and Steps Found in Research Article Introductions of the Two Corpora

Moves/Steps	Thai Journals (N=20)	International Journals (N=20)
M1: Establishing a territory (citation required) via topic generalizations of increasing specificity	19 (95%)	20 (100%)
M2: Establishing a niche (citations possible) via:	16 (80%)	20 (100%)
S 1A: Indicating a gap, or	16	19
S 1B: Adding to what is known	-	3
S 2: Presenting positive justification	4	1
M 3: Presenting the present work via:	20 (100%)	20 (100%)
S 1: Announcing present research descriptively and /or purposively	20	18
S 2: Presenting research questions or hypotheses	6	14
S 3: Definitional clarifications	2	4
S 4: Summarizing methods	2	4
S 5: Announcing principal outcomes	-	-
S 6: Stating the value of the present research	3	3
S 7: Outlining the structure of the paper	1	2

Note: **N** refers to the total number of analyzed RA introductions in this study

Besides the frequency of move/step occurrence shown above, the characteristic of each rhetorical move/step displayed in the two datasets are also exemplified. The realizations of each move and step taken directly from the two corpora are presented below. In each example, citations used in the original texts were replaced by (R). In addition, the code at the end of each example gives the order of the article, for example, T5 refers to the fifth article from the Thai corpus. The linguistic signals used as the key words for moves/steps identification are printed in bold.

Move 1: Establishing a territory

Move 1 can be realized via topic generalizations of increasing specificity. The communicative function of this move is to introduce the topic of the study. The article writers try to assure the reader that the article on the topic is worth investigating. For example, a preferred option for writers is to review previous literature related to the topic being investigated in order to realize this move. Based on Table 1, Move 1 was a conventional move in the Thai corpus (95%), while it was an obligatory move in the international corpus (100%). Three tenses, namely the present simple tense, the present perfect tense, and the past tense were found to be common in this move. Evaluative adjectives/verbs/nouns (e.g. important, accepted, interest and favored) were dominant key words used to establish a territory. The following excerpts (1-4) are some examples of Move 1.

- (1) *The anxiety that language learners experience in their foreign or second language learning **has attracted scholars' interest** for decades. (R) conducted some studies to understand and identify effects of anxiety on language learners' achievement. (T9)*
- (2) *Writing skill **is more and more important** nowadays. Becoming a proficient writer is one of the major objectives of many students, especially for those who want to become members of international business, administrative or academic communities (R). (T16)*

- (3) *The present popular trend, which has lasted for over 20 years, **has favored the use of** authentic texts for all levels of L2 learners (R).(I1)*
- (4) *Since Truscott published his 1996 article, -The case against grammar correction in L2 writing classes,|| debate about whether and how to give L2 students feedback on their written grammatical errors **has been of considerable interest** to research and classroom practitioners (R). (I8)*

Move 2: Establishing a niche

Move 2 aims to point out the limitations or weaknesses in the existing literature that need to be investigated in the present study. Based on Swales (2004) CARS model, this move can be realized via two steps: Step 1A: Indicating a gap or Step1B: Adding to what is known and Step 2: Presenting positive justification. Regarding the results presented in Table 1, Step 1A was the dominant step found in both corpora. Step 2 was utilized less frequently in both corpora. Move 2 was considered to be conventional in the Thai corpus, while it was an obligatory move in the international corpus.

Move 2 Step 1A: Indicating a gap

The function of this step is to indicate a gap in the prior research. The lexical words used to identify Move 2 Step 1A were some negation devices (relatively little, only a small number, no prior study) and contradiction connectors (however, despite, but, although). The present perfect tense was used frequently in this step. The realizations of Move 2, Step 1A of the two corpora are illustrated in excerpts (5) - (6).

- (5) *In the Thai context, **relatively little research** has been conducted compared with research in other areas of language teaching and learning.(T9)*
- (6) *To date, **only a small number of** studies have examined input-based methods of teaching L2 pragmatics.(I6)*

Move 2 Step 1B: Adding to what is known

The function of this step is to state the expected direction of the research which needs to be investigated. It was found that only three international introductions contained a clearly demarcated Move 2 Step 1B, and it was omitted in the Thai corpus. The realization of this step is usually in the form of the present simple tense. Consider the following examples.

- (7) **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. (I16)

Move 2 Step 2: Presenting positive justification

The aim of this step is to allow the authors to explain the need for their research or to provide positive reasons for conducting the study reported. According to Swales' (2004) classification, this step is optional. It was found in only four Thai introductions and one international introduction. Examples of this step are presented as follows.

- (8) *The relationships, if found, **can provide significant explanations** of students success or failure in taking computer-based reading comprehension tests.* (T12)
- (9) *Process logs, or more generically, diaries (R), **seem to be an ideal tool for** tapping into the writer's own perspective, that is, obtaining an intraview (R) of their writing process.* (I14)

Move 3: Presenting the present work

This move describes the present research conducted and can be accomplished through seven steps (Swales, 2004). Move 3 in the corpora investigated here appeared to be compatible with Swales' (2004) framework; its occurrence was considered to be an obligatory move in the two corpora. Only Step 5 (Announcing principal outcomes) was absent from both datasets. Move 3 Step 1

(Announcing present research) was the dominant step for both sets of data.

Move 3, Step 1 (Announcing present research)

Move 3 Step 1 details the objective of the research. This step was stipulated by Swales (2004) as an obligatory step. Likewise, in the present study, it was the most frequent step in the two datasets. To achieve this step, past simple statements were usually employed. Move 3 Step 1 was characterized by certain linguistic signals indicating the objective of the study conducted such as *this study was conducted* and *the study attempted to*. Examples (10) – (11) are the realizations of Move 3 Step 1.

- (10) ***This study was conducted to identify the errors in paragraph writing in English of first-year medical students in four medical schools at Mahidol University and to compare the errors committed by Siriraj Medical students to those committed by students from Ramathibodi, Praboromchanok and Bangkok Metropolitan by using the Chi-square test.*** (T16)
- (11) ***The study attempted to examine the relationship between students' level of computer anxiety and their choices of feedback method (i.e., online or face-to-face feedback, or both) in the revision process, as well as the resulting improvement in their essay writing.*** (I3)

Move 3, Step 2 (Presenting research questions or hypotheses)

The function of this step is to state the research questions or hypotheses. Both past and present simple tense were used to address this step. It was found that Move 3 Step 2 was quite frequent in the international corpus, while it was infrequent in the Thai corpus. Certain linguistic signals indicating research questions proposed in the research conducted were used to introduce this step, as can be seen in the two examples below.

- (12) *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. (T5)

- (13) **The following research questions** guided this exploratory study:... (I7)

Move 3, Step 3 (Definitional clarification)

Move 3 Step 3 describes the details of some specific key terms used in the research reported. The occurrence of this step was congruent with Swales' (2004) model showing that this step was an optional step in the two datasets. The present simple tense was used extensively in demarcating this particular step. To realize Move 3 Step 3, certain linguistic signals, for example, *refer(s) to*, were used as shown in the following examples.

- (14) *English reading abilities* **refer to** the ability to understand what one reads. (T20)
- (15) As used here, it **refers to** the extent to which the acoustic-phonetic content of the message is recognizable by a listener. (I15)

Move 3, Step 4 (Summarizing Methods)

The function of this step is to state the methods used in the research. Move 3 Step 4 is one of the optional steps used to realize Move 3. In the present study, it was also found to be an optional step (it occurred in 2-Thai and 4-international introductions). The present simple tense was used to realize this step.

- (16) 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. (T14)
- (17) **The primary source of data in this study is the process logs** that a Chinese doctoral student of chemistry kept while writing up the first draft of an English RA aimed at international publication. (I14)

Move 3, Step 6 (Stating the value of the present research)

This step is employed by authors to point out the merits of the study in relation to the study's applications or implications. Statements or key words regarding the usefulness of the study's findings were found, including such as *help*, *value*, *important*, and *useful*.

- (18) ***The findings of the study could help encourage language teachers to better understand their students with speaking anxiety and inspire language teachers and people involved to help reduce their students' speaking anxiety.*** (T9)
- (19) *It is hoped that this study will be of **some value for pedagogical purposes.*** (I19)

Move 3, Step 7 (Outlining the structure of the paper)

Move 3 Step 7 functions to describe the structure of the content of the rest of the research article, in order to tell the readers what to expect in the research report. Both present and future simple tenses were used in this step. This step was optional, occurring only in one Thai and two international introductions. Certain transition signals indicating Move 3 Step 7 included *as follows*, *then*, *follow*, *first*, and *finally*.

- (20) *This paper **is organized as follows.** In Section 2, I explain my corpus data and relevant information about the data. In section 3, I provide a short socio-historical background of the Salem witchcraft trials before I proceed to a detailed discussion of the concept of evaluation.* (T15)
- (21) *Previous monolingual and bilingual research on syntactic ambiguities, in general, and main verb versus reduced RC ambiguity, in particular, **will first be reviewed.** Then these structures will be compared in English and in German and implications of crosslinguistic differences **will be examined.** Finally, the results of the present study as well as their implications for L1 and L2 processing research **will be discussed.*** (I16)

2. Comparison of Move Structure of the RAs in the Two Corpora

Based on the results of the move analyses, the two sets of introductions also exhibit some similarities and differences in terms of move structure. Some observations about textual structure can be made with reference to move sequence and move cyclicity.

Table 2: Frequency of the pattern of move structure in the two corpora

Move structure	Thai corpus		International corpus	
	No. of Articles	%	No. of Articles	%
Articles following the Swales' CARS model				
1-2-3	6	30	6	30
1-2-3-1-2-3	-	-	5	25
1-2-1-2-3	2	10	-	-
1-2-3-1-3	1	5	3	15
1-2-1-3	1	5	-	-
1-2-1-2-1-2-3	-	-	1	5
1-2-3-1-2-3-1-3	-	-	1	5
1-2-1-3-1-3-1-3	-	-	1	5
Articles deviating from the Swales' (2004) model				
1-2-3-1-2-3-1	-	-	1	5
1-2-3-1-2-3-2-1-3-1	-	-	1	5
3-2-1-2-3-1-3	-	-	1	5
1-2-3-1	2	10	-	-
1-2-3-1-2	1	5	-	-
1-2-3-1-2-3-1-2-3-1	1	5	-	-
1-3-1	1	5	-	-
1-3-1-2	1	5	-	-
1-3-1-3	1	5	-	-
1-3-2-3-1-3-1	1	5	-	-
3-1-3-1	1	5	-	-
3	1	5	-	-
Total	20	100	20	100

Based on the results presented in Table 2 two main points need to be illustrated, that is to say, following and deviating groups. For the former group, although the strict conventional M1-M2-M3 pattern was found 6 times in each corpus, the remaining seven move patterns in this group were also considered to conform to the proposed model. This is because these move patterns contain all three moves although there are some intervening or cyclical moves in these patterns. In addition, these seven move patterns begin with Move1 and end with Move 3. As Ozturk (2007) noted, without the intervention of some moves, these introductions would accord with the CARS model. The move with the most interventions was Move 1 (Establishing a territory) where the authors introduced the topic of the study by beginning with topic generalizations and ending with topic specifics. Interestingly, the cyclical structure (M1-M2-M3-M1-M2-M3) was another frequent move structure employed in international RA introductions; however, it did not appear in any introductions in the Thai corpus.

In the deviating group, most of these unusual move structures were from the Thai corpus. There were two reasons why this group was identified as a deviating structure from the proposed CARS model. First, these move structures did not begin with Move 1 and end with Move 3. Two RA introductions (one from each corpus) opened the introductions with Move 3 (Presenting the present work). Second, one or two moves were missing in some of these unusual move structures. It was found that Move 2 (Establishing a niche) was absent in the four Thai introductions. Also, there was one introduction (T2) in which only one move (M3) was employed. These unusual characteristics are the reasons why these examples were put in the deviating group. As shown in Table 2, it can be said that RA introductions from the Thai corpus were likely to have more deviant structures than those of RAs from the international corpus (9 from the Thai corpus and 3 from the international corpus). Like the first group, it was found that Move 1 had the highest number of cyclical moves in the group with deviating structures.

Discussion

The purpose of this study was to compare the rhetorical structure of English RA introductions in the field of Applied Linguistics published in journals in Thailand with those in renowned international journals. The analysis of the two corpora was based on the move model developed by Swales (2004). In view of the results reported above there were both similarities and differences in the rhetorical move structure of the RA introductions in the two corpora. These will be discussed in relation to move occurrence, move sequence and move cyclicity.

1. Move Occurrence

Based on the results provided in Table 1, it was found that the frequency of Move 1 (Establishing a territory) displays very slight fluctuation between the two sets of introductions. This result is consistent with that of Jalilifar (2010), who compared English RA introductions in the field of Applied Linguistics published in two different contexts (Iranian and international contexts). He found that there were no significant differences in the occurrence of Move 1 although this move appeared less frequently in the local corpus than in the international corpus. This finding also supports Kanoksilapatham's (2011) study which reported that Move 1 was a salient move in civil engineering RA introductions.

The most noticeable difference between the two corpora in the present study was observed in Move 2, where researchers tried to establish a niche. This move occurred in eighty percent of the Thai corpus and in one hundred percent of the international corpus. The omission of Move 2 seems to support the findings of some previous studies, which found a limited use of Move 2 (e.g. Ahmad, 1997; Hirano, 2009; Jalilifar, 2010; Jogthong, 2001; Loi, 2010; Mahazari & Maftoon, 2007; Taylor & Chen, 1991). The results of these studies showed that non-native speakers were not confident about identifying gaps and commenting other research studies. This may lead to the absence or less frequent use of Move 2. The scholars cited above

believed that socio-cultural aspects, cultural linguistics and research environment were the factors affecting the occurrence of this move. To some extent, these explanations may be the reason for the omission of Move 2 in the present study.

According to Swales' model, Move 2 can be manifested through two steps: Indicating a gap or Adding to what is known (Step1) and Presenting positive justification (Step2). In the present study, 'Indicating a gap' is the most prominent step. This is congruent with some previous studies (e.g. Kanoksilapatham, 2011; Pho, 2008; Saz-Rubio, 2011; Shi & Wannaruk, 2010). For example, Shi and Wannaruk (2010) and Kanoksilapatham (2011), who analyzed hard science RA introductions, found that only 'Indicating a gap' was used to realize Move 2 in their corpora.

The methods used to establish a niche is one of the interesting points for discussion here. Instead of commenting on a specific gap in the existing literature, most authors in the present study merely pointed to limited (nonexistent) research or the insufficiency of research in the area of study. Example (22) illustrates this phenomenon.

(22) *In the Thai context, relatively little research has been conducted compared with research in other areas of language teaching and learning. Through the extensive review of research work on language anxiety studies available in Thailand, a small number of research works pertaining to speaking skill and communication have been found (R). (T9)*

This evidence appears to support previous studies (e.g. Ahmad, 1997; Hirano; 2009; Jogthong, 2001; Kanoksilapatham, 2007). The results of these studies revealed that most non-native writers tended to indicate the gap by stating the absence of such studies in their context. Presumably, argumentative skills, critical comments, and the evaluation of other people's work do not seem appropriate in certain cultures such as Thai culture.

As can be seen from Table 1, Move 3 was found in all RA introductions in both corpora (100%). This means that announcing present work is an important move. However, this finding runs counter to those conducted by some analysts (e.g. Ahmed, 1997; Duszak, 1994). They found that Move 3 was stated implicitly in their study. For example, Duszak (1994) noted that Polish RA introductions in the field of language studies tended to provide less information about the present research. The analysis in present study showed that generally the occurrence of steps used to realize Move 3 in both corpora tended to be similar. It was found that six steps existed in the two corpora, and Step 5 (Announcing principal outcome) was not found in either of the two sets of introductions. It was noticeable that Step 1 (Announcing present research) was the most frequent step used to realize Move 3 in both two sets of data. This preferred use of Step 1 was similar to the findings of previous research (e.g. Isik Tas, 2008; Jalilifar, 2010; Jogthong, 2001). These studies also pointed out that announcing research work was an important step in their studies.

Interestingly, the occurrence of Step 2 (Presenting research questions or hypotheses) was far less frequent in the Thai corpus than in the international corpus. This implies that some local writers might not be aware of the importance of Step 2 or they prefer using Step 1 to announce the present study instead of Step 2 (Step 1 appeared in 100 % of the corpus). Although Swales (2004) has labeled Step 2 as optional, it was found extensively in the international corpus. This evidence supports Pho's (2008) study showing that the occurrence of this step was found in 90% of English applied linguistics RAs. Based on these findings, it would seem that both steps (Step 1 and Step 2) are preferred steps in English applied linguistics research articles.

Another interesting point is the absence of Step 5 in both datasets. In fact, it is possible to omit this step since it was classified by Swales (2004) as optional. However, this step occurred in the previous research studies in various degrees. For example, in the field

of computer sciences, the frequency of this step was over 70 % (e.g. Antony, 1999; Posteguillo, 1999; and Shehzad, 2005). In the engineering field, according to Kanoksilapatham's (2011) study, the frequency of this step was 45 %, whereas in the agricultural field, in a study carried out by Saz-Rubio (2011), it was found to have a frequency of 3.6%. In addition, previous research has shown that this step was not used by non-native writers regardless of their field. For instance, this particular step was omitted in educational psychology RAs written by Chinese authors (Loi, 2010) and biochemistry RAs written by Thai authors (Kanoksilapatham, 2007). Based on the findings of these studies, it can be noted that it is not only standard practice used within disciplines that influences the rhetorical structure of research articles, but writers' background knowledge and published contexts which are also factors affecting the structure of RA writing. However, in her view, Kanoksilapatham (2007) believed that the expectations and size of scientific communities and national policy to promote research were factors which could account for this discrepancy, while Nwogu (1997) assumed that the authors preferred to keep the findings in the Results section. To some extent, the absence of step 5 in the present study and its presence in previous comparable studies may account for the textual characteristics of RA introductions in different disciplines and also in different published contexts. An awareness of this difference in terms of the rhetorical specification of introductions as found in the present study will be particularly useful for inexperienced non-native writers who attempt to publish in international journals.

1.1 Additional Communicative Functions

As stated by Swales (1990), the occurrence of steps is likely to be discipline-dependent. The results of the present study support this view. It was found that there were new communicative steps in Move 1 (Establishing a territory) and Move 3 (Announcing the present work) in the sampled applied linguistics RAs in the present study. Under Move 1, *'relating literature to the present study'*, *'presenting*

theoretical basis', and 'presenting rationale of the study' were the newly added steps, whereas in Move 3, they were 'stating the samples of the study', 'describing scope and limitations', and 'signaling to the next section'. Although these new steps occurred in only a few of the introductions in both corpora, they were clear evidence of the rhetorical differences of introductions published in different contexts. For example, in the Thai corpus, 'presenting rationale of the study' and 'describing scope and limitations of the study' were found in three and one introduction(s) respectively. However, these two steps did not appear in the international corpus. Generally, these two steps are common moves found in the structure of dissertation. From these findings, the occurrence of particular new steps in the Thai corpus is clear evidence of rhetorical variations in the structure of English RA introductions published in local (Thai) and international contexts. This strongly suggests that rhetorical preference and writing style influence Thai writers when writing articles in English.

2. Move Sequences and Move Cyclicity

The majority of RA introductions in both corpora begin their introductions with Move 1 (Establishing a territory). For example, except for three RA introductions (two and one in the Thai and international corpora, respectively) which start with Move 3 (Presenting the present work), the rest of the introductions in the two sets of data start with Move 1. The ordering pattern (Move 1-2-3) of the CARS model is a prominent move structure in both sets of data. This finding is consistent with previous studies (e.g. Isik Tas, 2010; Ozturk, 2007; Saz-Rubio, 2011; Shi & Wannaruk, 2010) which report that the ordering of M1-M2- M3 is the predominant pattern in their corpora. However, compared to previous studies, the occurrence of this pattern in the current study is relatively low (30%). For example, this move pattern has a frequency of 46% in Saz-Rubio's (2011) study, and 55 % in Kanoksilapatham's (2011) study.

In some comparative studies, RA introductions written by native English authors tend to follow this pattern more than those

written by non-native writers. This can be seen in Loi's (2010) study who found that this linear ordering pattern appeared with a higher percentage in English RA introductions (55 % compared to 40% in Chinese corpus). Based on the results shown in Table 2, besides the proposed M1-M2-M3 move structure, there were seven move structures similar to Swales CARS model. These move structures contained all three moves (M1-M2-M3) where Move 1 was the opening move and Move 3 was the closing move, but they were interrupted by some other moves. Without the intervening move(s), they would conform strictly to the CARS move structure (Ozturk, 2007).

A noteworthy difference between the two corpora in terms of move sequences was found in the group of articles deviating from Swales' (2004) model as shown in Table 2. Nine deviant move structures appeared in the Thai corpus, while only three were found in the international corpus. From this finding, it can be said again that RA introductions in the international corpus conform to the proposed model more closely than those in the Thai corpus. This finding appears to support previous research showing that English RA introductions followed the CARS model sequence pattern more than those in local RA introductions (e.g. Hirano, 2009; Loi, 2010). These findings, however, are in contrast to a study carried out by Park (2004) who found RA introductions written by Korean native speaking authors followed the archetypal M1-M2-M3 sequence more closely than those RA introductions composed by native English speaking authors. Based on the findings of these studies, it can be inferred that an author's experience of writing academic English influences, to some extent, the writing of RA introductions. As Park pointed out, the structure of introductions of Korean authors, who had experience studying abroad resulted in these authors learning how to write in English using the conventional format.

Concerning the cyclical pattern, the findings of the present study revealed that both sets of introductions exhibit a cyclical order of moves. Within the cyclical pattern, each move can be found in the sequences. The findings showed that Move 1 was the most frequent

cyclical move. This implies that the English RA introductions in Applied Linguistics prefer describing or establishing a territory for readers. In addition, research articles in Applied Linguistics, which is considered as an established field, tend to provide more theoretical background to facilitate reading about the issues investigated (Park, 2004; Ozturk, 2007). This may be the reason why Move 1 was used extensively in both sets of data.

Conclusion

The present study aims to compare the rhetorical structure of English research article introductions in Applied Linguistics published in Thailand and internationally using Swales' (2004) framework. It was found that all three moves were found in the two sets of introductions. There were some slight differences regarding the occurrence of rhetorical moves and steps. Although the strict M1-M2-M3 pattern was the preferred move structure of the two corpora, there were various move structures which deviate from the proposed model. These particular move structures were found mostly in the Thai corpus. Move cyclicity was found in both corpora and Move 1 was the most frequent cyclical move. It was found that RA introductions in the international corpus comply with Swales' (2004) model more closely than those RA introductions in the Thai corpus. Rhetorical variations of move-step structure in this study have been attributed to various factors, for example, the writers' linguistic background, writing experience, journal policy, cultural aspects, and the research environment.

This paper shows that corpus analysis can enhance our understanding of how applied linguistics RA introductions written by Thai writers differ from, or conform with, those introductions written by scholarly authors who publish their research articles in world-renowned journals. These findings might assist both native and non-native scholars of English by leading them to a deeper understanding of the structure of research article introductions in the field of Applied Linguistics. Additionally, the knowledge gained by this study should

also enable article writers to meet the demands of academic discourse required by the discipline of Applied Linguistics. The findings of the present study, therefore, provide some implications not just for genre theory, but also for pedagogy in the field of Applied Linguistics. As a result, these findings can be used as guidelines for teaching the writing of English research article introductions to students pursuing their masters' and doctoral degrees, especially if English is not their mother tongue. Furthermore, such comparison of journal articles published in Thai and international journals may provide L2 teachers with insights into effective instructional strategies to help EFL/ESL learners acquire a pragmatic knowledge of the rhetorical structure of research article introductions.

However, this present study has some limitations and they should be taken into consideration when conducting comparative studies. First, analysis was carried out with only twenty articles from each corpus. More research with larger corpora is needed to strengthen the findings. Second, although the length of the analyzed articles has not been considered as the factor in the present study, it might to some extent affect the results of the analysis. Third, in the present study, only the rhetorical move structures of RA introductions written by different authors are analyzed. Thus, comparing the rhetorical move structure of English RA introduction sections written by the same non-native writers, but published in both local and international contexts or conducting a contrastive analysis of the rhetorical move structure of English and Thai RA introductions written by particular non-native authors is also recommended. From such a study, we may be able to obtain explicit evidence on what the influential factors are that might contribute to the varying rhetorical strategies adopted by a particular person when writing in different languages and publishing in different environments. Finally, interviewing the article writers or those who are prolific article writers would make the results more reliable (Kanoksilapatham, 2007; Flowerdew & Wan, 2010). This is because

interviewing can contribute to a better understanding of the writers' intentions.

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