# A Move-Based Analysis of the Conclusion Sections of Research Articles Published in International and Thai Journals

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#### ABSTRACT

This paper reports on an analysis of the conclusion sections of English research articles published in Thai and international journals. A comparison was made between 20 conclusion sections in international journals and 20 conclusion sections in Thai journals written by Thai writers in the field of applied linguistics. The two corpora were analysed using Yang and Allison's (2003) move model. The results revealed that all three moves of the proposed model occurred in the two sets of data but with differences in their frequency of occurrence. There were no obligatory moves or steps in the two corpora. Move structures in the conclusion sections of the Thai corpus varied more from the proposed model than those of the conclusion sections in the international corpus. The findings could assist considerably in an understanding of the rhetorical move structure of the conclusion sections of research articles. In addition, they may yield implications for a pedagogical framework for the teaching of academic writing, syllabus design, and genre-based teaching and writing.

Keywords: move analysis; genre analysis; conclusion section; research article; applied linguistics

## INTRODUCTION

In recent years, there has been an increasing interest in studies of genre analysis. In the field of English for Specific Purposes (ESP), the best-known authors are John Swales and Vijay Bhatia (Flowerdew & Wan 2010). Their books (Bhatia 1993, Swales 1990) have currently influenced many research studies and they have been cited in research conducted in various disciplines. Genre, defined by Swales (1990), refers to a type of communicative event with a particular purpose and used by members of specific discourse community. Genre analysis is the analysis of language use in a broader sense in order to account for not only the way text is constructed but also for the way it is likely to be interpreted, used and exploited in specific contexts to achieve specific goals (Bhatia 1993, 2002). In the field of applied linguistics, such a method of analysis is used to research and describe structure and stylistic features of texts (Coffin 2001).

One of the genre-based approaches used to analyse the structure of texts is 'move analysis' which has recently become an important area of research. A 'move' means a discoursal segment that performs a particular communicative function (Swales 2004). The focus of a move-based analysis is on the hierarchical schematic structures of texts (Nwogu 1997). It can be said that a move is a semantic unit that is associated with the writer's purpose. From a pedagogical point of view, categorizing texts in terms of communicative purpose is believed to have the advantage of turning teachers' and students' attention away from mere surface structures of text to the socially situated use of texts with specific intentions (Hüttner, Smit & Mehimauer-Larcher 2009).

Research articles (RAs) are a genre which has been extensively investigated using a move-based approach. The explanation of the increasing interest in analysing RAs by using a move-based approach is due to the recognition of the need for an awareness of the structural format of the research article genre (Moritz, Meurer, & Delllagnelo 2008). In the previous literature on the genre, different conventional research article sections have been examined by several researchers, for example, introduction sections were analysed by Samraj (2002); Swales (1990); methods sections by Lim (2006), Peacock (2011); results sections by Thompson (1993), Williams (1999); and discussion sections by Amirian, Kassaian and Tavakoli (2008); Peacock (2002); and Yang and Allison (2003). Also, the conventional sections (introduction, methods, results, and discussion-IMRD) were also examined by Kanoksilapatham (2005, 2007), and Pho (2008).

However, to the best of our knowledge, research studies which aim to analyse the rhetorical structure of RA conclusion sections are limited. According to Swales (1990) and Posteguillo (1999), this particular section has been considered as part of the discussion section. This may be why the research studies on the structural organisation of RA conclusion sections are scarce. It is known that the conclusion sections of RAs provide not only an outline of the study but also other important elements, such as implications and recommendations (Sandoval 2010 cited in Morales 2012). Although there is a small number of research studies which have analysed the structural organisation of this particular section, the findings of two studies (Moritz et al. 2008 and Yang & Allison 2003) in particular are interesting. For example, in Yang and Allison's (2003) study, it was found that the conclusion sections of applied linguistics articles contained three moves (Move 1: Summarising the study, Move 2: Evaluating the study, and Move 3: Deductions from the research). These moves were organised linearly and Move 1 was found to be the most frequent move. In Moritz et al.'s (2008) study, which compared three corpora of conclusion sections in the field of applied linguistics written by three groups of different authors (Portuguese L1, English L1, and English L2), six moves were found including 'Restating the introductory statement', 'Consolidating the research space', 'Summarizing the study', 'Commenting on results', 'Evaluating the study', and 'Making deductions from the research'. It was found that 'Making deductions from the research', was the most frequent move. Furthermore, the comparison showed that the English L2 writers tended to elaborate more in their pieces of writing than the English L1, and the Portuguese L1 writers. The results of this study showed that the linguistic and rhetorical conventions of the first language interfere with the writing of the second language. However, although L2 writers were more influenced by L1 writing style, they still have to follow certain universal conventions when they write for international publication, otherwise their papers would not have been published.

Previous research studies have revealed considerable differences across disciplines, languages, and native versus non-native writers, in terms of the rhetorical structure of research articles (Amirian et al. 2008, Hirano 2004, Jogthong 2001, Kanoksilapatham 2007, Ozturk 2007, Peacock 2002, Samraj 2002, Yakhontova 2006). In the Thai context, for example, Kanoksilapatham (2007) found that the move structures of Thai biochemistry RAs were different from those of English biochemistry RAs, for example, 'Commenting results' and 'Stating imitations' moves were optional in the Thai corpus, while they were conventional in English corpus. Thai writers tended not to contextualise their results to the fields or relevant literature by comparing results obtained from the study with those found in previous research studies, or making generalizations based on the findings. The findings from Jogthong's (2001) study revealed that Thai RA introduction sections fitted Swales'

framework, but the specific steps in the introductions were less consistent with the model. Both Jogthong (2001) and Kanoksilapatham (2007) believe that the discernible differences were possibly due to a number of factors, such as the close-knit nature of Thai research communities, which reflect the size and expectations of the community members, the scope of research conducted in a Thai context and culture in which critical comments and evaluation other works are seen as unduly harsh.

As can be seen in the literature, the rhetorical structure of RAs written by native and non-native speakers is different. Therefore, the present study focuses on the conclusion sections of English RAs produced by Thai writers and published in Thai journals. These are compared with conclusions which were published in international journals. It is expected that the findings will, to a certain extent, contribute significantly to the teaching of academic writing in EFL contexts. Specifically, the conclusion sections of RAs in the field of applied linguistics were selected in the present study. This is because it is a language-related field. The results obtained should make more pedagogical implications, especially in relation to English language teaching and learning. Also, raising awareness of genre features becomes directly relevant as part of the disciplinary content of applied linguistics.

## METHODOLOGY

## DATA COLLECTION

Two corpora were used in the present study: an international corpus and a Thai corpus. The international corpus consisted of 20 English RA conclusion sections in the field of applied linguistics published during the period 2003-2010 and selected randomly from international journals. The selection of the journals is based on the ranking of journals in the Journal Citation Reports and their impact factor for the year 2009. The samples used in the Thai corpus were 20 English-language applied linguistic RA conclusion sections chosen from peer reviewed journals published during the years 2004-2010 by high ranking government universities in Thailand. The conclusion sections selected for the Thai corpus were written by Thai writers. Due to the limited number of English RAs in the field of applied linguistics in the Thai corpus, the selection of RAs was based on purposive sampling. It should be noted that each RA used in the present study is empirical with separate conventional format of Introduction-Methods-Results-Discussion-Conclusion (IMRDC). That is to say, each conclusion section used in the current study is a section that stands alone. RAs with combined sections of Discussion and Conclusion sections were excluded. For the purposes of identification and easier access, the RA conclusion sections from each corpus were codified separately (T1-T20 for the Thai corpus, and I1-I20 for the international corpus)

## YANG AND ALLISON'S FRAMEWORK AND THE ANALYSIS OF THE CORPORA

The move model for the conclusion section proposed by Yang and Allison (2003) is used as the framework for the move identification because it was developed from an analysis of RAs in applied linguistics which is also the focus of the present study. Also, some moves in their model contain a wide coverage of the constituent steps which are used to realise the moves explicitly. Their model consists of three moves as shown in Figure 1.

Move 1: Summarising the study
Move 2: Evaluating the study
Step 1: Indicating significance/advantage
Step 2: Indicating limitations
Step 3: Evaluating methodology
Move 3: Deductions from the research
Step 1: Recommending further research
Step 2: Drawing pedagogic implications

FIGURE 1. Yang and Allison's (2003) model for research article conclusion sections

In the process of move identification, the notion of communicative purpose was central for the analysis of the RA conclusion sections. Therefore, if there were cases where the communicative purpose of a unit of text was not self-evident, or where multiple functions were served in the context, or where one sentence contained two or more moves, they were assigned to the move and step that appeared to be the most salient (e.g., Del Saz-Rubio 2011, Holmes 1997, Ozturk 2007). To ensure the reliability of the move analysis, another coder who has expertise in coding moves, was employed. A percentage of the agreement rate (Owin 1994 as cited in Kanoksilapatham 2003) was used to ensure the index of inter-coder reliability, which should be one hundred percent. There was a discussion between coders when there was disagreement about the coding of a particular move unit. Intra-rater reliability, as suggested in the previous literature (Jalilifa 2010, Mahzari & Maftoon 2007), was also implemented. That is to say, the first author of this study re-analysed the samples in the two corpora a month after the first rating. The frequency of each move in each RA conclusion sections 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. If a particular move occurs in every conclusion section (100%), it is regarded as 'obligatory', 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'.

## RESULTS

## MOVE OCCURRENCE

As illustrated in Table 1, all moves and steps proposed in Yang and Allison's (2003) model occurred in both datasets. It can be seen from Table 1 that the frequency of each move in the international corpus was relatively higher than those in the Thai corpus. Based on the percentage of occurrence, all three moves of the international corpus were conventional. This is different from the Thai corpus where only Move 1 (Summarising the study) was conventional, while the remaining two moves were optional because their frequency of occurrence was lower than 60%.

	Thai Corpus	International Corpus
Moves/Steps	(N=20)	(N=20)
M1: Summarising the study	17 (85%)**	19 (95%)**
M2: Evaluating the study	5 (20.83%)*	16 (80%)**
S1: Indicating significance/advantage	3	9
	1	9
S2: Indicating limitations	2	6
S3: Evaluating methodology	9 (45%)*	18 (90%)**
M3: Deductions from the research	5	15
S1: Recommending further research	6	9
S2: Drawing pedagogic implications		

#### TABLE 1. Frequency of moves and steps found in the conclusion sections in both corpora

NOTE: **\*\*\*** = obligatory, **\*\***= conventional, and **\*** = optional

In order to have a clear picture of the rhetorical moves employed in both corpora, the function and realizations of each move are presented below. In the examples, citations used in the original texts were replaced by (R). The distinct lexical clues that are regarded as the key words for each example are given in bold text.

## MOVE 1: SUMMARISING THE STUDY

The primary aim of this move is to summarise the research by highlighting the findings. The occurrences of the move, in the present study, complied with Yang and Allison's (2003) findings which found a higher frequency of the summarising move than for the other two moves. Move 1(Summarising the study) was the most frequent move in both sets of data (85%-Thai corpus and 95 % -international corpus). To realise this move, restating the research objectives and/or reviewing results briefly were usually found. The lexical signals which were used to signal a conclusion were in the form of statement in the present or past simple tense.

**Examples:** 

- This present study is an attempt to provide alternative insights on language anxiety from a student perspective. The study found two major tactics of anxiety reduction initiated by English Major students at Rajabhat University. (T8)
- 2) In order to contribute to the need for further research on the value of providing corrective feedback to L2 writers (R), the present study investigated the extent to which different types of feedback on three targeted error categories helped L2 writing improve the accuracy of their use in new pieces of writing. It found that the combination of full, explicit written feedback and one-to-one conference feedback enabled them to use the past simple tense and the definite article with significantly greater accuracy in new pieces of writing than was the case with their use of prepositions. (I8)

#### MOVE 2: EVALUATING THE STUDY

This is the move where authors justify their study using three available options, including 'Indicating significance/advantages', 'Indicating limitations', and 'Evaluating methodology'. Based on the frequencies presented in Table 1, Move 2 (Evaluating the study) was the least frequent move in both sets of data, accounting for 21% in the Thai corpus and 80% in the international corpus. Table 1 clearly shows the frequency of Move 2 of the conclusion sections in the international corpus. It was found that all three steps were employed in the

international corpus with a similar frequency. The examples of Move 2 which were realised via three steps are as follows:

MOVE 2 STEP 1: INDICATING SIGNIFICANCE/ADVANTAGE

- 1) Moreover, the investigation of test takers' strategies in doing the WBCT **provided information of** how students employed their knowledge in doing the test. This can lead to **the improvement in** language learning and teaching. (T1)
- 2) Because little to no research has specifically investigated the effect of different direct feedback options on improved accuracy, the findings of the present study are noteworthy. (18)

### MOVE 2 STEP 2: INDICATING LIMITATIONS

- 1) However, caveats are in order. First, despite efforts in making the two corpora equal in terms of size and representativeness, the corpora are somewhat disparate due to, for example, the absence of specialized journal in Thai, the instability of Thai journals, and the small number of article written in Thai. (T16)
- 2) Notwithstanding the positive effects of pre-university level writing experience in L1 and L2, the findings for this small-scale study **should be viewed** *cautiously*. Because the sample size was small, the study was in a specific context, and it dealt with a particular group of students, all with very little L1 and L2 university writing experience, the findings cannot be generalized beyond such a group. (I7)

#### MOVE 2 STEP 3: EVALUATING METHODOLOGY

- 1) Given that this writing test makes use of computerized tools that are easily available in many educational institutions (MS Word Processor), with some adjustments (such as increasing time allotment or decreasing the number of drafts required, etc.) the T-CBWT could initially be administered as a formative test. (T10)
- 2) To test hypothesized relationships between negative feedback, modified output, and L2 development, **it was necessary to** operationalize development very narrowly. (118)

#### MOVE 3: DEDUCTIONS FROM THE RESEARCH

The purpose of this move is to state, with respect to the overall study, what the research contributes to existing knowledge in the field. Two options are used to realise this move, namely 'Recommending further research', and 'Drawing pedagogical implications'. Move 3 was the second most frequent move occurring with a frequency of 45% and 90% in the Thai corpus and international corpus respectively. It was found that the international authors preferred to realise Move 3 by using Step 1 (Recommending further research) than Step 2 (Drawing pedagogical implications). The examples of Move 3 with these two steps are presented below.

### MOVE 3 STEP 1: RECOMMENDING FURTHER RESEARCH

- 1) *Further studies should* focus on investigating efficiency of the speaking anxiety reduction according to students' perspective since language teachers can reinforce the students' speaking improvement. (T8)
- 2) *Further research*, therefore, *should* control for the independent contribution of L2 proficiency and writing ability so that more warranted statements about formulation processes can be made. (I2)

#### MOVE 3 STEP 2: DRAWING PEDAGOGICAL IMPLICATIONS

- 1) The findings from the vocabulary test yield some implications for EAP/ESP *pedagogy*. Not only academic vocabulary, teaching vocabulary, both single (individual) words and noun phrases, should also be included in language teaching, especially for second-year students who are beginning in EAP/ESP classes. (T7)
- 2) The findings of the present study may have some implications for EAP writing pedagogy. In teaching students how to organise their RA introductions attention should be paid not only to pattern prevalent in the wider discipline, but also to the patterns employed in a particular subdisciplines. (I11)

## MOVE STRUCTURE OF THE CONCLUSION SECTION FROM THE TWO CORPORA

Based on the analysis, there were four move structures that were shared by at least three different conclusion sections, including M1-M2-M3, M1-M2, M1-M3 and M1-M3-M2-M3. The distributions of these four move patterns in the two corpora were different. For the international corpus, the most frequent pattern was linear (M1-M2-M3), accounting for 25%. The second most frequent pattern was the M1-M3 and M1-M3-M2-M3 patterns, and each of them was employed in three conclusion sections. The M1-M2 structure was employed in only one conclusion section. In the Thai corpus, the M1-M3 sequence was the most frequent move structure, occurring with a frequency of 30%, while the M1-M2 pattern was the second most frequent sequence, accounting for 20%. From these findings, none of the Thai conclusion sections followed the logical sequence (M1-M2-M3). This finding runs counter to that found in Yang and Allison's (2003) study in which the three moves were found to be commonly organised in a linear structure. This was probably due to a limited use of Move 2 (Evaluating the study) and Move 3 (Deductions from the research) in the Thai corpus. The writers might not appreciate the importance of these two moves or some writers might feel that evaluating or justifying one's own study might seem presumptuous (in the context of Thai culture). Such particular traits are, to some extent, influenced by cultures and society.

With regard to move cyclicity, it was found that 8 (40%) of the international conclusion sections showed cyclical structures such as M1-M3-M2-M3-M2-M3 and M1-M2-M3-M2-M3 patterns but these structures did not occur in the Thai corpus. This may be the results of a limited use of Move 2 and Move 3. Also, certain Thai conclusion sections (35%) contained only a single move (Move 1 or Move 3). This makes the move structures of conclusion sections in the Thai corpus differ significantly from the conclusion sections in the international corpus.

In sum, three moves proposed in Yang and Allison's (2003) model were found in both corpora. Move 1 (Summarising the study) was the predominant move in the two datasets, followed by Move 3 and Move 2 respectively. The frequency of occurrence of each move in the Thai corpus was far lower than that of the international corpus, especially the frequency

of Move 2 (Evaluating the study). The linear structure of moves (M1-M2-M3) was found only in the international corpus.

## DISCUSSION

Both similarities and differences in terms of move occurrence and move structure were found in both sets of data. Move 1 (Summarising the study) was a conventional move in both sets of data. This finding is consistent with that found in Morales' (2012) study in which Move 1 was employed at a frequency of 75% and 100% in the Filipino and Japanese corpora respectively. However, in a study carried out by Moritz et al. (2008), Move 1 was the least frequent move. It is noticeable that although the corpus of both Moritz et al.'s (2008) study and Morales' (2012) study were from the field of applied linguistics as in the present study, the results of Moritz et al.'s (2008) study were significantly different. This reflects the existence of rhetorical variation within a discipline.

The obvious differences between the two corpora were the frequency of Move 2 (Evaluating the study) and Move 3 (Deduction from the research). Only five Thai conclusion sections contained Move 2 (21%), while this move occurred with a frequency of 80% in the international corpus. In Moritz et al.'s (2008) study, this particular move was the third most frequent move. Also, in a comparative study conducted by Morales (2012), Move 2 was an obligatory move, in which Step 1 (Indicating significance/advantages) was the frequent step (accounting for 100%) used by Filipino authors. The other two steps (Step 2: Indicating limitations and Step 3: Evaluating methods) were commonly used by Japanese authors, accounting for 63% and 50% respectively. From the results we can infer that Thai authors prefer not to evaluate their studies. That is to say, there may be certain factors affecting Thai writers when writing in English as stated by some scholars (Jogthong 2001, Kanoksilapatham 2007, Trakulkasemsuk & Pingkarawat 2010). They believe that writing in Thai culture may affect the use of argumentative and evaluative skills, because of the specific characteristics of Thai society, such as communication norms, modesty and humility may, to some extent, have an influence on L2 writing. In the Thai context, for example, commenting on their achievements may seem impolite or boasting. All these factors reflected the quality of research articles written by Thai writers as reported in Jaroongkhongdach, Todd, Keyuravong and Hall's (2012) study. They found that compared to the articles published in international journals, research articles written by ELT Thai academics were of poor quality. They also highlighted that justification was one of the skills that most ELT Thai writers lack. From these findings (previous research studies and the present study), it can be inferred that when writing research articles, non-native or inexperienced writers need to be aware of the importance of evaluating their studies and contextualising the findings of their research with reference to the existing knowledge in the field. By so doing, their RAs may not only be more interesting, but may also be possibly considered for publication by well-known international journals.

The frequency of Move 3 (Deduction from the research) in the Thai corpus was two times lower than that of the international corpus. Compared to Morales' (2012) findings, the frequency of this move was relatively high. He found that both Step 1 (Recommendation for further research) and Step 2 (Drawing pedagogic implications) were extensively used to realise Move 3. On the other hand, in the international corpus, Move 3 occurred at a frequency of 90%. Also, in Yang and Allison's (2003) study, Move 3 was a substantial move which was mainly realised by Step 2. This implies that deduction from the study (Move 3) is an important move in the conclusion sections of RAs published in international journals. On

the other hand, Thai authors seem unaware of the importance of generalising their research findings with regard to the field; their RA conclusion sections are merely the summary of a research conducted. The difference in terms of the moves employed in the two sets of data can be used to raise non-native writers' awareness of the structure of research articles and it may also be used to provide a practical guide for those who aim to publish in scholarly international academic journals.

A noteworthy distinction between the two corpora in relation to move structure has also been observed: there was no chronological M1-M2-M3 pattern in the Thai corpus, while this pattern was found in five (25%) international conclusion sections. However, in Yang and Allison's (2003) study, the majority of the conclusion sections investigated were constructed in a linear structure. The absence of such structure may be affected by such rhetorical preferences and culturally rhetorical variations, and also a style of writing in English which Trakulkasemsuk and Pingkarawat (2010) have explained in the following way, "even though Thai people's use of English is based on some native standard variety, Thais find their own ways of presenting their identity through the use of language. And since their distinctive ways of using English do not harm international intelligibility, their creativity should be accepted" (p.90).

The most marked difference between the proposed model (Yang & Allison's model) and the present study was the cyclicity of Move 1 (Summarising the results). Yang and Allison's (2003) study found that Move 1 was the most cyclical move; however, in the present study, it was only used in one international conclusion section. Most international authors are likely to provide a short summary of their findings, which is then followed by statements concerning evaluating and deductions from the study. This means that only Move 2 and Move 3 were sometimes reiterated in the move sequences, such as M1-M2-M3-M2-M3, M1-M3-M2-M3-M2-M3 structures, where the structures are in the form of these two moves (Move 2 and Move 3) which occur alternatively. For instance, in the case of I 7 (M1-M3-M2-M3-M2-M3) in which Move 2 and Move 3 were repeated, that is, they were in the form of indicating limitations (Move 2 Step 2) which was then followed by the presentation of possible research directions for further studies (Move 3 Step 1) and then the writer moved back to evaluating methodology (Move 2 Step 3) before ending the section with suggesting another area for future research (Move 3 Step 1).

The methods used to begin the conclusion sections in the two datasets is an interesting issue which needs to be discussed here. More than half (11 out of 19 or 57%) of the international conclusion sections began the section with statements concerning background information or the purpose of the study before providing the main findings; conversely, less than half (5 out of 17 or 29%) of the Thai conclusion sections included such information. It can be said that most Thai authors prefer opening the conclusion section with a summary of the main findings without restating the background information for the study. Two examples below are evidence for the presence (Example 1) and absence (Example 2) of background information.

Examples:

- This present study is an attempt to provide alternative insights on language anxiety from a student perspective. The study found two major tactics of anxiety reduction initiated by English Major students at Rajabhat University. (T8)
- (2) Most students understood the story in the passage they had read, and understood what they were asked to write but they had problems with the format of paragraph writing. They wrote an opinion paragraph with no introduction, no topic sentence, and no transitional words. (T15)

## CONCLUSION

The present study attempts to compare the rhetorical organisation of English RA conclusion sections published in journals in Thailand with those articles published in international journals. The results revealed that the three moves proposed by Yang and Allison (2003) were employed in two datasets but with different frequency of occurrence. Move 1 (Summarizing the study) was the most frequent move in both sets of data, so it is considered as a conventional move. The frequency of Move 2 (Evaluating the study) and Move 3 (Deductions from the research) in the international corpus was higher than that in the Thai corpus, being used two and three more times respectively. There was no linear ordering pattern (M1-M2-M3) found in any Thai conclusion section, while such pattern occurred with a frequency of 25% in the international set.

Pedagogically, this study has implications for a better understanding of academic writing, particularly with respect to the genre of research articles. Integrating this genre in the curriculum would be one practical option for second language teachers. For example, to succeed in academic writing, learners need to be made aware of the conventions set by the discourse community and they should be encouraged or instructed to see the structural complexities and relationships between functions and to be conversant with the appropriate language usage in RAs. It is expected that the findings will also assist inexperienced non-native writers, particularly those who are increasingly under pressure to publish in international journals, to produce their RAs in a form which will increase their chances of being accepted for publication in well-established journals.

The findings of the present study are the results obtained from an analysis of only 40 conclusion sections. In order to have a clear picture of the structural organisation of this particular section of research articles, further research with a larger corpus size is necessary. In addition, the present study compares the conclusion sections written by Thai authors and published in Thai journals with those published in international journals. Future studies may compare the rhetorical moves of the conventional sections (IMRD) of RAs written by the same non-native writers but published in both local and international journals. To follow such a direction, future researchers may be able to conduct an in-depth interview with authors whose papers are published in both local and international journals. In this way, the findings obtained may contribute to a better understanding of not only similarities and differences of the rhetorical structure and linguistic features used in research articles, but also what factors affect the writing of research articles for publication with different types of journals.

#### REFERENCES

- Amirian, Z., Kassaian, Z. & Tavakoli, M. (2008). Genre analysis: an investigation of the discussion sections of applied linguistics research articles. *The Asian ESP Journal*. 4(1), 39-63.
- Bhatia, V. K. (1993). Analysing genre: language use in professional settings. New York: Longman Publishing.
- Bhatia, V. K. (2002). Applied genre analysis: a multi-perspective model. *IBERICA*, 4, 3-19.
- Coffin, C. (2001). Theoretical approach to written English-a TESOL perspective. In A. Burns and C. Coffin (Eds.). *Analysing English in a global context: A reader*. New York: Macquarie University Press.
- Del Saz-Rubio, M. M. (2011). A pragmatic approach to the macro-structure and metadiscoursal features of research article introductions in the field of Agricultural Sciences. *English for Specific Purposes, 30* (4), 258-271.
- Flowerdew, J. & Wan, A. (2010). The linguistic and the contextual in applied genre analysis: The case of the company audit report. *English for Specific Purposes*, 29, 78-93.
- Hirano, E. (2009). Research article introductions in English for specific purposes: a comparison between Brazilian Portuguese and English. *English for Specific Purposes*, 28(4), 240-250.
- 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(4), 321-337.

Hüttner, J., Smit, U., & Mehlmauer-Larcher, B. (2009) ESP teacher education at the interface of theory and practice: Introducing a model of mediated corpus-based genre analysis. System, 37(1), 99-109.

- Jalilifar, A. (2010). Research article introductions: sub-disciplinary variations in Applied Linguistics. *The Journal of Teaching Language Skills*, 2(2), 29-55.
- Jaroongkhongdach, W., Todd, R.W., Keyuravong, S. & Hall, D. (2012). Differences in quality between Thai and international research articles in ELT. *Journal of English for Academic Purposes*, *11*, 194-209.
- Jogthong, C. (2001). *Research article Introduction in Thai: genre analysis of academic writing*. Unpublished Ph. D. dissertation, West Virginia.
- Kanoksilapatham, B. (2003). A corpus-based investigation of scientific research articles: Linking move analysis and multidimensional analysis. Unpublished doctoral dissertation, Georgetown University.
- Kanoksilapatham, B. (2005). Rhetorical structure of biochemistry research articles. *English for Specific Purposes*, 24, 269-292.
- Kanoksilapatham, B. (2007). Writing scientific research articles in Thai and English: similarities and difficulties. *Silpakorn University International Journal*, 7, 172-203.
- Lim, J. M. H. (2006). Method sections of management research article: A pedagogically motivated qualitative study. *English for Specific Purposes*, 25, 282-309.
- Mahzari, A. & Maftoon, P. (2007). A contrastive study of the introduction section of English and Persian medical research articles. *Iranian Journal of Language Studies (IJLS)*, 1 (3), 201-214.
- Moritz, M. E., Meurer, J. L., Dellagnelo, A.K. (2008). Conclusions as components of research articles across Portuguese as a native language, English as a native language and English as a foreign language: A contrastive genre analysis. The ESP esialist, 29 (2) [Available on-line]. www. http://revistas.pucsp.br/index.php/esp/article/download/6194/4522
- Morales, R. C. (2012). Conclusions in research articles: A Filipino-Japanese contrastive rhetorical study. Philippine ESL Journal, 8 [Available on-line]. www.philippine-esl-journal.com/V8\_A4.pdf
- Nwogu, K. N. (1997). The medical research paper: structure and functions. *English for Specific Purposes*, 16 (2), 119-138.
- 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.
- Peacock, M. (2002). Communicative moves in the discussion section of research articles. System, 30, 479-497.
- Peacock, M. (2011). The structure of the Methods section in research articles across eight disciplines. *Asian ESP Journal*, 7 (2), 97-124.
- Pho, P. D. (2008). *How can learning about the structure of research articles helps international students?* Retrieved December 22, 2009 from
  - http://www.isana.org.au/files/2008%20Conference%20Proceedings/paper\_Dzung.pdf
- Posteguillo, S. (1999). The schematic structure of computer science research articles. *English for Specific Purposes*, 18 (2), 139-160.
- Samraj, B. (2002). Introductions in research articles: variations across disciplines. *English for Specific Purposes*, 21, 1-17.
- Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J. M. (2004). Research genres: explorations and applications. Cambridge: Cambridge University Press.
- Thompson, D. K. (1993). Arguing for experimental 'fact' in science: a study of research article results sections in Biochemistry. *Written Communication*, 10 (1), 106-128.
- Trakulkasemsuk, W. & Pingkarawat, N. (2010). A comparative analysis of English feature articles in magazine published in Thailand and Britain: Linguistics aspects. In R. Facchinetti, D. Crytal, & B. Seidlhofer (Eds.). Linguistic insights: Studies in language and communication. Bern: Peter Lang.
- Williams, I. A. (1999). Results sections of medical research articles: analysis of rhetorical categories for pedagogical purposes. *English for Specific Purposes*, 18 (4), 347-366.
- Yakhontova, T. (2006). Cultural and disciplinary variation in academic discourse: the issue of influencing factors. *Journal of English for Academic Purposes*, *5*, 153-167.
- Yang, R. & Allison, D. (2003). Research articles in applied linguistics: moving from results to conclusions. *English for Specific Purposes*, 22, 365-385.