

A Genre Analysis of Introductions in Theses, Dissertations and Research Articles Based on Swales' CARS Model*

Hohsung Choe

Hankuk University of Foreign Studies

Bo Hyun Hwang**

Hankuk University of Foreign Studies

In this study, theses written by Korean master's students (MTs), dissertations written by Korean doctoral students (DDs), research articles written by Korean experts (KRs) and research articles written by native English-speaking experts (ERs) are analyzed in order to identify the organizational traits coming from different academic proficiency levels and the first language variable. Fifty papers from each academic discourse community are analyzed using Swales' CARS model. The results reveal that very few MTs and DDs, which are the lower academic proficiency groups, follow the regular form of the CARS model, whereas most KRs and ERs maintain linear patterns. KRs follow the CARS model most accurately while ERs convey a rather liberal form of the Move structure.

Keywords second language writing, genre analysis, CARS model

* This study was supported by Hankuk Univ. of Foreign Studies Research Fund of 2014.

** Hohsung Choe: First author, Bo Hyun Hwang: Corresponding author

I. INTRODUCTION

In recent years, the term *genre* has been drawing the attention of many researchers in a variety of fields such as literature, the arts, and media, but setting a clear perspective on the concept of genre is a prerequisite for research in all of these fields due to the different properties it takes on according to context (Bruce, 2008). Genre, especially in the setting of academic writing, refers to distinctive textual properties which entail particular purposes for using certain language conventions, and it varies according to the primary basis of the particular text. The focus of genre analysis as a key to English academic writing has been an inspiration to many writing instructors ever since English for Specific Purposes (ESP) pedagogy, as distinct from general English education, came to the fore in the early 1980s. Many researchers agree on the conceptual changes inherent in the need to analyze specific texts and the importance of applying this to actual educational settings (Anthony, 1999; Belcher, 1994; Shaw, 1991; Swales, 1990). As Askehave and Swales (2001) note, genre serves the notion of membership by classifying each participant involved in a discourse community on the basis of particular knowledge of text encoding and decoding. In this sense, the value of investigating the gaps caused by differing proficiency levels in educational competence and different native languages for the improvements in academic writing instruction becomes clear.

In terms of differing levels of educational competence graded within pre-professional stages, a gap exists between master's students and doctoral students who are pursuing the same goal of reaching professional competence yet have differing degrees of capacity to report on their work and deliver their findings in writing. Expressing this standpoint, Hyland (2004) proclaims the need to recognize the gap between master's students and doctoral students in terms of their attitudes and situations which ultimately result in differing levels of quality in their academic products. The primary purpose of the present study, therefore, is to examine particular linguistic patterns that Korean graduate students often employ but possibly use improperly, and to provide them with patterns favored by experts that, by employing certain conventions, may help to refine their language use in delivering their findings.

Research articles written in English by native speakers of different languages, especially of Korean, as is relevant to this study, can reveal common but

distinctive features of exemplary writing for graduate students to practice with. As elaborated above, it is a worthwhile practice for potential experts to extract specific language features from different contexts and internalize them in both English and Korean settings, within which they may later work professionally. Another purpose of this study is to analyze research articles written by native speakers of different languages (both Korean and English) in order to identify not only common patterns that graduate students can learn and emulate, but also distinctive ones that allow them to make appropriate language choices in different contexts. According to Swales (1990), in the strict sense in many scholarly communities, research articles remain at the center of the research genre while theses and dissertations are categorized in other research-process genres. From the viewpoint of English for Academic Purposes (EAP), however, all of these types of research basically fall into the same research-based academic genre as generated by highly educated groups (Dudley-Evans & St. John, 1998; Swales, 1990). Thus, comparing them within the same boundary is expected to provide desirable distinctions coming from different academic proficiency levels.

To sum up, the present study will unfold in two directions, focusing on academic proficiency in particular and the first language difference in general. Distinctive features in research papers from two different novice groups will be examined, and particular frameworks and linguistic patterns used in both native and non-native English research articles will be analyzed as exemplary models. The specific discipline of this study is applied linguistics, but its relevance extends to the field of English education, the author's major. In particular, the research gaps identified in the process of the review of the science are primary drivers for this study. Applied linguistics is generally considered to be situated between the natural sciences and the humanities (Belcher & Trowler, 2001). However, several previous studies on genre analysis (Brett, 1994; Dillon, 1991; Hunston, 1994) have been mostly biased toward the approaches of the natural sciences rather than those of the social sciences which target learners' conceptual processes as reflected in outcomes. In this sense, applied linguistics, situated within the social sciences and based on experimental studies on language education, is anticipated to offer more balanced viewpoints as well as model or ideal resources for social genre analysis.

All academic writing, including theses and dissertations as well as research

articles, is bound to have an introductory section, but this is often considered to be the most difficult part for many writers to accomplish, since it forces them to grapple with numerous decisions ranging from selecting an organizational framework to making adequate word choices (Swales, 1990). As a reflection of the writer's decision to express a stance and draw in expected readers with intriguing information, the introductory section can serve as a genuine source for the analysis of the writer's true intention toward the main issue and the underlying attitude reflecting the writer's effort to be a part of the target community. Based on previously conducted studies on genre analysis, we employ macro-level of analysis to investigate the introduction to four types of research writing. Certain structural patterns in different types of academic writing have been well constructed with the CARS model, and the present study, which is based on this model, is expected to provide more effective guidelines for graduate students to practice the use of consistent and logical organizational frameworks.

II. LITERATURE REVIEW

1. Swale's CARS Model

Swale's CARS model has often been used to analyze the structure of academic research writing, especially of introduction sections. The model is composed of the functional element *Move* and of its subcategory *Step*. The term *Move* has been defined in several ways, but in most studies of genre analysis, it is generally counted as a functional unit that shows the writer's fundamental purpose, with its relevant content containing at least one proposition. Steps, on the other hand, fall into each *Move* category and serve as specific guidelines that support the writer's intention to develop a position. The CARS model used in the present study is illustrated in Table 1.

Move 1, Establishing a territory, is for setting up the target research domain from the perspective of the discourse community. It may consist of three different Steps: *Claiming centrality*, *Making topic generalization*, and *Reviewing items of previous research* in that order. The first Step is for asserting the importance of the target research while the second shows how appropriate and

interesting the research is. The third Step involves the introduction of former literature related to the target research by stating “what has been found” and “who has found it” (Swales, 1990, p. 148). Swales considers this Step the most essential part of Move 1.

Move 2, entitled Establishing a niche, has only one Step, the function of which varies depending on the writer’s choice. Step 1 in Move 2 entails taking a stance opposite to those of previous studies (Step 1A: Counter-claiming), pointing out the insufficiency of former research (Step 1B: *Indicating a gap*), posing a problem with an existing study (Step 1C: *Question-raising*) or expanding upon an area of earlier research (Step 1D: *Continuing a tradition*). Of these, the most commonly used Step in Move 2 is *Indicating a gap* (Park, 2006).

TABLE 1
Swales’ CARS Model for Research Article Introductions

MOVE 1	Establishing a Territory
Step 1	Claiming centrality and/or
Step 2	Making topic generalization and/or
Step 3	Reviewing items of previous research
MOVE 2	Establishing a Niche
Step 1A	Counter-claiming or
Step 1B	Indicating a gap or
Step 1C	Question-raising or
Step 1D	Continuing a tradition
MOVE 3	Occupying the Niche
Step 1A	Outlining purposes or
Step 1B	Announcing present research
Step 2	Announcing principal findings
Step 3	Indicating RA (Research Article) structure

Finally, Move 3 (*Occupying the niche*) consolidates the need for the target research and is composed of three Steps. Step 1 is considered by Swales to be a key element of Move 3, and is divided into two parts, either proposing the reason for the study (Step 1A: *Outlining purposes*) or presenting certain features of the research (Step 1B: *Announcing present research*). Anthony (1999) claims that it is not necessarily required to split up Step 1 in this fashion, since there

are no clear-cut criteria to set them apart. Thus, all sentences implying either the purpose of the study or a relevant statement about the research itself are classified as falling into Step 1 in the present study. Step 2 (*Announcing principal findings*) and Step 3 (*Indicating RA structure*), which are both optional, are for explaining major findings and for presenting how the research paper will proceed, respectively.

To account for unexplained aspects of the CARS model, Lee (2001) proposes a modified version of the CARS model (CARS3+) based on the Korean context, presenting two more Moves named *Un-id* (*Un-identifiable Move*) and *WM2* (*Weak version of Move 2*), and one more Step designated as the *Value Step*. *Un-identifiable Move* indicates a Move that is hard to identify within the original CARS model, in the case that it contains information too general or historical to belong to any of the other three Moves. *Weak version of Move 2* provides a rational basis for the need for the target research, just as in the original Move 2, but proposes an actual educational situation rather than direct comments related to previous studies. *Value Step* presents significant points of the study related to its value, and this step is also pointed out by another researcher, Anthony (1999), who found the repeated emergence of statements on the value of study in his research as well.

2. Previous Studies Using the CARS Model

The early form of genre analysis, which was based on linguistic descriptions, has shifted in recent years to the discourse level of analysis, which provides a larger organizational picture (e.g., Jung, 2013). No one disagrees that Swales' introduction of the CARS model marked a new era in genre analysis in terms of setting the organizational framework, and hence numerous studies employing this model have been conducted. The CARS model has been used to analyze various kinds of academic and professional written works such as research papers, job applications, legislative documents (Bhatia, 1993) and various types of materials that university students need to read for their courses (Hyland, 2004, 2007; Paltridge, 1997; Swales, 1990, 2004).

When it comes to research papers, which are the most common materials for genre analysis as well as the target sources for the present study, plenty of studies adopting the CARS model have differentiated themselves from other

research in terms of sectional aspects of analysis. Research papers are generally composed of five main parts: Abstract, Introduction, Methodology, Results, and Discussion³ (Swales, 1990). Although the CARS model was originally designed to analyze the introduction section, variations of the model have been applied to other sections of academic articles as well. A number of researchers (Paltridge & Starfield, 2007; Swales, 1990; Swales & Najjar, 1987) have analyzed the introduction section, frequently considered an important section in writing (Swales, 1990). There have been also many other attempts to apply this model to other sections such as the Abstract (Samraj, 2005; Salager-Meyer, 1992), the Methodology section (Wood, 1982), the Result section (Brett, 1994; Thompson, 1993), the Discussion section (Dudley-Evans, 1994; Holmes, 1997), and even the Acknowledgements section through the concept of *Cinderella genre* (Hyland, 2003).

Samraj (2002) points out the importance of research writing across disciplines in terms of gaining membership to specific discourse communities, and much research concerning the various disciplines has been actively conducted as well (Anthony, 1999; Samraj, 2002, 2005). Anthony (1999), looking at the discipline of engineering on the basis of CARS, claims that the model neglects other sections that appear in research articles such as the definition of terms, illustrative examples of difficult concepts, and evaluation of the target research. Likewise, there has been a common consensus on the slight variations in the CARS model, and several studies insist that there should be some space for accepting revised versions of the model on the basis of different contexts such as disciplinary diversity (Anthony, 1999), cultural aspects (Najjar, 1990), types of research papers (Bunton, 2002; Samraj, 2008) and first language difference (Lee, 2001).

This flexible point of view has expanded, and the idea has been derived that certain discourse communities in the same genre domain can be separated from one another on the basis of communicative purpose, which is inevitably diverse and evolves to some degree. This characteristic of various communicative purposes has been referred to by several researchers (Askehave & Swales, 2001; Bhatia, 2008) and has encouraged them to study genre analysis from

³ Swales (1990) provides a model framework for research papers as a whole called IMRD structure on the basis of Move analysis. This model is consistent with the previous model, PMRC (Problem-Method-Result-Conclusion), a format proposed by Graetz (1985).

multiple perspectives.

In terms of different types of research papers, there have been attempts to create a modified Swales' model for master's thesis introductions (Samraj, 2008) and for PhD thesis introductions (Bunton, 2002). These two models employ the same basic three-move structure for the introduction of research articles, but also provide for additional elements such as defining terms, introducing materials or subjects, significance of the study, and thesis structure. However, this attempt to establish a more appropriate structure coming from different types of research paper and contexts has been mainly conducted on English-speaking contexts, not in EFL situations like the Korean context, an omission in the literature that this study, as part of its purpose, expects to accomplish.

The language difference, the most commonly used variable for the genre analysis, has also produced remarkable distinctions based on the CARS model. Taylor and Chen (1991), for example, compare the Move structure of scientific research papers written in English by native English speakers and Chinese second language users of English. They point out that Chinese writers tend to use less space for criticizing previous studies, which is concerned with Move 2 of the CARS model, and conclude that the reason for this is a specific feature of Asian culture: avoiding direct judgment on other's works.

Lee (2001), focusing on different academic circumstances affected by the first language variable, draws findings revealing that research articles written by Korean scholars have different and unclassifiable types of Moves such as the presence of current educational situations, and invents CARS+3, a version of Swale's original model based on his findings in the Korean academic context. The result is consistent with that of Choi's (1988) study, which shows the Korean preference for the unfolding *Situation-Problem-Solution-Conclusion* method over the simple *Problem-Solution-Conclusion* version. According to Choi's interpretation, Korean writers are likely to feel more comfortable criticizing educational situations than criticizing studies conducted by other researchers, which corresponds with the findings for Chinese writers in Taylor and Chen's (1991) study.

III. METHODOLOGY

1. The Corpus

The study analyzes theses written by Korean master's students (MTs), dissertations written by Korean doctoral students (DDs), research articles written by Korean experts (KRs), and research articles written by native English-speaking experts (ERs) – a total of 200, or 50 for each category during the past 15 years (between 1998 to 2013). The theses and dissertations selected for this study were written by graduate students from 21 Korean universities, each of which requires theses and dissertations to be written in English according to departmental policies. They were randomly collected from the Research Information Sharing Service (RISS)⁴ as belonging to the discipline of Applied Linguistics, or more precisely, English as a foreign language education. The research articles were collected from two leading applied linguistics journals with articles from *Korean Journal of Applied Linguistics* used for the analysis of the writing of Korean experts and articles from the journal *Applied Linguistics* for the native English-speaking ones. Only articles written by a single author were chosen. To draw a line between native and non-native speakers, the nationality and places of prior education of each writer are traced by means of a search engine.

The introduction sections of the written products selected have various lengths approximately ranging from 300 to 2000 words and reflect the distinctive natures of different discourse communities. Since theses and dissertations adhere to some extent to certain rules and regulations agreed upon by postgraduate school committees, setting the boundary of the introduction sections is a straightforward task compared to that for the research articles, which exhibit various formats based on the authors' own intentions. For some research articles that do not have any clear separation between the introduction and the literature review sections, only the very beginning part, in which the subject matter is proposed as a form of blueprint, is counted as the introduction section, with the following sections on previous studies or definition of relevant terms excluded.

⁴ RISS is a domestic academic research information service provided by the Korean Education Research Information Service (KERIS).

2. Data Analysis

In the study, Swales' CARS model is adopted to identify the particular constructive framework of academic writings from different groups, because the model was originally intended for the introduction section of research articles. Additionally, CARS+3, the model elaborated by Lee (2001), is also used as an analytical framework because it reflects the Korean context more specifically. To increase the reliability of the study, two raters were tasked to use the CARS model to identify Move and Steps. One of the raters holds a master's degree in English education from a renowned graduate school, and has been judged sufficiently qualified by us to understand the relevant concepts and to analyze the data. The other is the first author of the study. According to Crookes (1986), the objectivity of a study can be realized with a group of raters who have been trained well enough to reach an appropriate level of agreement in their analyses of a large body of corpus data. To implement such training, the two raters first read all of the reference materials applicable to the CARS model, Tang and John's (1999) taxonomy model, and Hyland and Milton's (1997) model, as well as sources explaining these models, in order to master the specific terms and methods needed for analysis. The raters then practiced with four introduction samples presented in Swales' (1990) and sixteen other sample introductions randomly extracted from applied linguistics journals of a pre-selected quality and standard based on what had been learned from the reference materials. It took about ten meetings over the course of a month to reach complete agreement through constant discussion of ambiguous points and by the time analysis of the actual target data was begun a consistency level of 97 percent agreement between the two raters was achieved.

IV. FINDINGS

Distinctive organizational patterns based on the CARS model are found in writings from each group. Out of 200 writings in total, 50 show forms of the original Move construct proposed by Swales, such as the classic form: Move1-Move2-Move3 (hereafter M1-M2-M3), as well as recursive patterns such as M1-M2-M1-M2-M3. Other patterns also detected serve as good indicators of

organizational distinctions in master's theses (hereafter MTs), doctoral dissertations (DDs), and research articles written by Korean experts (KRs) and native English-speaking experts (ERs).

1. Differences in Move Structure

Table 2 below shows the Move structures of the introduction sections from 50 MTs as well as the number of sentences.

TABLE 2
Move Structures Master's Thesis Introductions

Data ID	Number of Sentences	Move Structure	Data ID	Number of Sentences	Move Structure
MT-01	41	3 W2 3 W2 1 3 1 3	MT-26	15	U W2 1 3
MT-02	46	1 3 1 3 1 3 2 3 1 3	MT-27	63	U W2 1 3 1 U W2 1 3 1 2 1
MT-03	47	1 2 1 2 1 2 1 2 1 W2 1 3	MT-28	20	W2 1 2 1 3
MT-04	28	1 W2 3	MT-29	17	U W2 1 3
MT-05	18	1 2 3	MT-30	26	U W2 3
MT-06	38	1 3 1 2 W2 3	MT-31	18	1 2 1 3
MT-07	48	1 2 3	MT-32	35	3 U 1 W2
MT-08	39	1 W2 1 W2 1 2 3	MT-33	35	3 1 2 1 3 1 3 1 3
MT-09	21	U 1 3 1 3	MT-34	66	1 2 1 2 1 2 1 2 1 3 1 2 1 2 3
MT-10	17	1 2 3	MT-35	72	1 3 1 3
MT-11	44	1 2 3	MT-36	43	1 2 3
MT-12	14	3 1 W2 1 3	MT-37	50	U 1 W2 1 3 1 2 3 U 1 3
MT-13	23	U W2 3	MT-38	58	1 U W2 3 1 3 1 3
MT-14	38	3 1 3 1 3	MT-39	35	3 U 1 2 1 2 3
MT-15	33	U 3 1 3	MT-40	64	1 U 3 1 3 1 3 1 2 3
MT-16	29	1 W2 U 1 3	MT-41	19	1 2 3
MT-17	48	U W2 1 3 1 3 1 3	MT-42	32	U 1 3
MT-18	28	1 U 1 3	MT-43	40	U 1 3
MT-19	76	1 3 1 2 3 1 3 1 2 3 1 3 1 3	MT-44	58	U 1 3 1 3 1 2 3
MT-20	80	3 1 3 1 3 1 2 1 2 1 2 1 2 3	MT-45	36	3 1 2 1 2 1 3
MT-21	16	1 2 3	MT-46	15	1 W2 1 W2 3
MT-22	27	U 1 3	MT-47	42	U 1 2 3 W2 2 1 3
MT-23	45	1 2 1 3 2 3 1 3	MT-48	28	1 3
MT-24	42	3 1 W2 1 2 3	MT-49	48	U W2 1 3 W2 3 1 3
MT-25	35	1 2 W2 2 3	MT-50	40	3 U 3 1 3

Note. W2 and U in this table refer to Weak Move 2 and Un-identified Move respectively, both of which can be found in Lee's (2001) CARS+3 model revised on the basis of the Korean contexts, but not in the original one.

Table 2 demonstrates that 7 out of 50 MTs (MT 5, 7, 10, 11, 21, 36, 41) follow the original CARS model while only a single one (MT 31) exhibits the recursive form. The remaining data seem to hardly follow the sequential form in their introductions at all, an irregular pattern that is attributable to the existence of additional Moves (WM2, Un-id) not found in the original CARS model. These additional Moves are often observed in academic writings from the Korean context, which represent aspects of the Korean educational situation (WM2) or rather general phenomena such as historical and background information (Un-id) (Lee, 2001). The following sentences are examples of WM2 and Un-id from Lee's (2001) data, presented alongside comparable counterparts from the present study indicated by group code and number:

[WM2] The teaching of listening comprehension skills has been ignored in college education... (Lee, 2001)

[WM2] Although the emphasis on writing ability and individual writing strategy use has increased, current Korean English writing classes in primary and secondary schools are clearly not prepared for this change. (MT 8)

[Un-id] It has been 100 years since English began to be taught in Korea at the end of the Yi Dynasty... (Lee, 2001)

[Un-id] English is a language no longer only for Americans. It becomes an international language nowadays... Korea holds a key post in the world and tries to get rid of a passive attitude so as to make inroads into the world market. (MT 17)

Several attempts have been made to provide plausible reasons for this emergence of irregular patterns within Korean academic writings, with Lee (2001), for example, proposing a conceptual difference for introduction sections in Korea as one of them. That is, construct patterns in Korean writings are more likely to follow *ki-seung-chon-kyul*⁵ and *ki*, counterparts of introduction sections

⁵ It is a traditional paragraph distribution in Korean writings, which can be a counterpart of basic structural pattern of English writings, 'Introduction-Body-Conclusion'.

in formal Korean writing that do not provide a clear direction on the subject matter, consequently resulting in slight differences from English writings.

WM2 (Weak Move2) is used to pose a problem on the basis of the actual educational situation in Korea instead of offering direct criticism of previous studies, and according to Table 2, this Step was frequently used by the master's student group, with 22 out of 50 MTs applying WM2 compared to only 17 DDs, as shown in Table 3. Current educational problems are often stated by people closely involved in educational fields or even by on-site instructors, as in the following example:

However, the goals of English education in the national curriculum in relation to the cultural understanding couldn't be met its expectation which was to be ideally achieved through a variety of teaching and learning activities presented in the textbooks and by the teachers who have the appropriate knowledge about the culture of the target language they teach in the classrooms. (MT 4)

This high occurrence of WM2 in the MT group may reflect the heavy pressure on graduate students to provide expert knowledge or cultural traits as Korean writers from a broader perspective. Master's students, who have a basic level of knowledge of their field, are more likely to depend on their educational experiences as instructors or involved persons, so this can be used as a distinctive strategy to cover up shortcomings.

On the other hand, these frequent statements about Korean educational problems may arise from cultural characteristics based on the notion of collectivism. As proposed by Hofstede (1986), the term *collectivism* refers to the high degree of attachment to a group, as opposed to the notion of individualism. Korean writers, embracing collectivism by showing more concern about group issues rather than individual interests or values, tend to pose questions at the group or national levels as contributions to the development of Korean education. This phenomenon could be supported by particular East Asian cultural traits related to Confucianism, a perspective proposed by Taylor and Chen (1991). That is, East Asian cultures influenced by Confucianism tend to put more weight on group harmony rather than on the prominence of individuals, and this is well reflected in the avoidance of direct criticism of previous studies

(M2) and the preference for commenting on current situations (WM2) as alternative means. This culture-based interpretation could also be applicable to the distinctive traits found in KR Move structure and to the two linguistic features, discussed in the section on micro-level analysis below.

The frequent use of Un-id was also detected in MT, accounting for 21 introductions out of 50, over twice as many as for the 10 DD group. This Move presents very general information based on historical facts or background knowledge for general audiences rather than specific community members (Lee, 2001). Most introductions with Un-id Move started by stating the importance of English as an official language and the need to learn it, and they allowed general audiences to get closer to the main topic that the writer actually planned to propose in this way.

The Move structures of the DD group are shown in Table 3 below. Only 6 out of 50 introductions (DD 31, 32, 38, 39, 40, 42) show recursive patterns and none of them follows the original form of the CARS model, indicating a slight difference from MTs. Given that doctoral candidates must have gone through the experience of composing academic papers a lot more frequently than master's students, this number is far lower than expected. The factors that affect these results could be considered the same as those of the MT group, but one of the most influential factors at play could be length. The average numbers of words and sentences in DDs are about 1.7 and 1.6 times more than those of MTs,⁶ respectively, and it seems possible that the more sentences there are, the easier it is for the track to be lost.

⁶ The average number of words in the introductions of dissertations is 1615 while that of theses is 929. Dissertations have an average of 64 sentences while theses have an average of 38.

TABLE 3

Move Structures of Doctoral Dissertation Introductions

Data ID	Number of Sentences	Move Structure	Data ID	Number of Sentences	Move Structure
DD-01	16	1 W2 1 3 1 3	DD-26	56	3 1 2 3 1 3 1 3 1 3
DD-02	58	1 2 3 1 2 3	DD-27	28	1 2 1 3 1 2 3
DD-03	41	1 2 3 2 3 2 3	DD-28	27	3 1 2 3
DD-04	50	1 3 1 2 3	DD-29	55	3 1 W2 2 1 2 1 2 1 2 1 3
DD-05	55	3 1 3 1 2 1 W2 1 3 2 1 3	DD-30	106	1 3 1 3 1 2 1 3 2 3 2 3
DD-06	67	1 3 1 3 1 3	DD-31	74	1 2 1 3
DD-07	47	3 1 3 1 2 1 2 1 3	DD-32	45	1 2 1 2 1 2 3
DD-08	72	U 1 W2 1 3	DD-33	53	3 1 W2 1 2 1 3 1 2 1 2 3
DD-09	71	3 1 2 1 3	DD-34	59	1 3 1 3 1 3 1 3 2 3
DD-10	88	3 U W2 1 W2 1 W2 1 W2 3	DD-35	44	U 1 3 1 2 1 3
DD-11	151	1 2 3 1 2 1 2 1 2 1 2 1 3 1 2 1 3 2 1 2 3	DD-36	60	3 1 3 1 3 1 3 1 3
DD-12	128	1 W2 1 2 1 3	DD-37	41	U 1 3 1 3 W2 1 3
DD-13	51	1 3 1 3 U 3 2 3 1 2 1 3 1 3	DD-38	36	1 2 1 2 1 3
DD-14	45	3 1 2 1 2 1 3 1	DD-39	68	1 2 1 2 3
DD-15	86	1 3 1 2 1 3 1 W2 3 1 2 1 W2 1 W2 1 3 1	DD-40	39	1 2 1 2 1 3
DD-16	161	3 1 3 W2 1 W2 1 W2 1 3 W2 1 2 1 2 1 3	DD-41	40	3 U 1 U 1 3 1 3
DD-17	55	1 2 W2 3 1 3	DD-42	60	1 2 1 2 3
DD-18	93	U 3 1 3 1 2 1 3 1 3 2 1 3	DD-43	65	1 3 U 1 2 3 1 3 2 3
DD-19	40	3 W2 1 3	DD-44	50	1 3
DD-20	80	W2 1 W2 1 2 1 3 1 3 U 1 W2 3 1 W2 1 W2 3	DD-45	61	1 2 3 1 2 1 3
DD-21	71	U W2 1 3 W2 3 1 3 1 3 3	DD-46	59	1 U 3 1 3
DD-22	45	1 3 1 3 1 2 3	DD-47	75	1 2 1 2 1 3 1 2 1 2 1 3
DD-23	140	3 1 3 W2 1 2 1 2 3	DD-48	41	3 1 2 1 2 1 3
DD-24	72	1 3 W2 1 2 1 2 1 2 1 3 1 3 1 3 1 3	DD-49	43	1 3 1 3 1 3
DD-25	80	1 3 2 1 2 1 3	DD-50	72	1 W2 1 2 1 2 3 1 2 3 1 2 3

A noticeable form is found in terms of frequent occurrences of M3 and recursive patterns based on this Move. 41 out of 50 DDs have more than two M3s in each Move structure, and about one third of them show regular patterns

such as M1-M2(WM2)⁷-M3-M1-M3 (DD 1, 4, 15, 22, 17), M1-M2-M3-M1-M2-M3 (DD 2), M1-M2-M3-M2-M3 (DD 3), M1-M3-M1-M3 (DD 6, 49), M1-M3-M2-M3 (DD 34), and M1-M2-M3-M1-M2-M1-M3 (DD 45, 47). This frequent use of M3 with regular and recursive patterns in Move structure possibly implies that doctoral students strategically keep reminding the readers about the present study in order to easily return to the point. This cyclical pattern is also proposed by Dudley-Evans (1986) and Hopkins and Dudley-Evans (1988), who examine the introduction sections of several dissertations of a British university, and point out the strong preference of the authors for a cyclical pattern which provides topic-relevant items in turn. This frequent occurrence of M3s, which weigh on the importance of the present study, may represent the particular feature of doctoral dissertations as a specific genre.

Many Move structures presented in both the KR and ER groups follow the original CARS model more closely than the MT and DD groups do, and it confirms the fact that the CARS model is the best suited for the research articles as it is originally intended to be. On the other hand, the high rate of regular Move structures may reflect the writer's high level of expertise on the organization of academic writing. Since experts have had more opportunities to read and write research papers than master's and doctoral students, their knowledge of the specific organizational framework of their own fields is expected to be higher. Hence, their expertise that has been internalized and acquired over a long period of time consequently produces a huge gap in comparison with the student writers in terms of academic writing skills.

The first language variable between the two expert groups KR and ER, however, leads to some extent to different patterns in each Move structure, as shown in Tables 4 and 5 below.

⁷ WM2 is counted as Move 2 since it serves the function of *Establishing a niche*, essentially combining Move 1 (*Establishing a territory*) and Move 3 (*Occupying the niche*).

TABLE 4**Move Structures of Korean Expert Research Article Introductions**

Data ID	Number of Sentences	Move Structure	Data ID	Number of Sentences	Move Structure
KR-01	13	1 3	KR-26	10	3 1 3
KR-02	14	1 W2 1 3	KR-27	39	1 2 1 2 1 3
KR-03	12	1 3	KR-28	27	1 2 1 3
KR-04	16	1 2 1 3	KR-29	26	1 3 1 2 3
KR-05	11	1 3	KR-30	22	1 W2 3
KR-06	22	2 1 2 3	KR-31	13	1 3
KR-07	17	1 2 1 2 1 3	KR-32	17	1 2 3
KR-08	11	1 2 3	KR-33	25	1 2 1 2 3
KR-09	9	1 2 3	KR-34	10	1 3
KR-10	23	1 2 3	KR-35	8	3 1 3
KR-11	16	1 2 3	KR-36	23	1 3
KR-12	12	1 2 3	KR-37	5	1 3
KR-13	17	1 W2 3	KR-38	11	1 2 3
KR-14	23	1 2 3	KR-39	57	1 2 1 2 1 3
KR-15	18	1 2 1 2 1 2 3	KR-40	18	3 1 3 1 3
KR-16	18	1 2 3	KR-41	23	1 2 3 1 2 3 1
KR-17	19	1 3	KR-42	10	1 2 1 3
KR-18	16	1 2 3	KR-43	15	1 2 3
KR-19	17	1 3 1 3	KR-44	7	1 2 3
KR-20	19	1 W2 1 2 1 3	KR-45	9	1 3 1 3 1
KR-21	20	U 1 2 3	KR-46	26	1 3 2 3
KR-22	69	1 2 1 2 1 2 3	KR-47	11	3 1 3
KR-23	18	1 2 3	KR-48	13	1 W2 3
KR-24	32	3 1 2 3	KR-49	22	1 2 3
KR-25	18	3 1 3 1 3	KR-50	18	U 1 2 3

Twenty three out of 50 KRs follow the CARS model accurately, with 14 introductions (KR 8, 9, 10, 11, 12, 14, 16, 18, 23, 32, 38, 43, 44, 49) showing the basic pattern M1-M2-M3, and 9 introductions (KR 4, 7, 15, 22, 27, 28, 33, 39, 42) the recursive form. On the other hand, 13 out of 50 ERs comply with the original CARS model, with 8 introductions (ER 5, 6, 7, 14, 18, 21, 27, 40) reflecting the basic pattern M1-M2-M3, and 5 introductions (ER 4, 17, 23, 26, 45) regular recursions.

The gap in the number of introductions showing the regular Move pattern between the two expert groups could possibly be attributed to a tendency among Korean researchers to stick to conventional writing formalities. Non-native writers, who have relatively little competence in the use of language and organizational formats in the academic context, are more likely to rely on the most basic format acquired from technical books or other relevant studies. The

high level of conformity by non-native writers to these basic principles has been pointed out by other researchers as well (Ancarno, 2005) and this paradoxical pattern is well reflected in the native writers' rather liberal form of writing, which is illustrated in more detail in Table 5.

The most noticeable feature of the Move construct as used by the KR group that cannot be found in the ER group is the presence of WM2. WM2, the weak form of Move 2 that provides information about the Korean educational context rather than stating the problems of previous studies, is used in 6 introductions (KR 2, 6, 13, 20, 30, 48). The use of WM2 has also been detected in MTs and DDs as mentioned in Section 4.1.1, but there are significant distinctions on how WM2 is used and what purpose its use entails between the students' introductions and those of Korean experts. First, WM2 is more likely to serve as a substitute for Move 2 in the KR group, whereas it is used as an additional Move besides Move 2 in theses and dissertations for the purpose of eliciting the attention of readers with the emphasis on more current issues. This is supported by the fact that 4 out of 5 KR students do not have another type of Move 2, while 13 out of 22 MTs and 6 out of 17 DDs apply WM2 exclusively.

The second distinction that sets KR students aside from MTs and DDs is in the portrayal of the educational situation in Korea and the boundaries of such discussion. That is, Korean experts tend to propose certain problems arising in Korea by looking at EFL contexts from a broader perspective rather than focusing on the situation in Korea itself, as illustrated in the following example:

Despite its Expanding Circle context, the native-speaker orientation in English education in Korea has been prevalent and has deeply penetrated the current market. (...) With the emerging ELF paradigm, it seems opportune for TESOL professionals in Korea to reflect upon and reconceptualize a proper model of English education that is socioculturally and sociolinguistically appropriate in a Korean context. (KR 2)

TABLE 5

Move Structures of Native Expert Research Article Introductions

Data ID	Number of Sentences	Move Structure	Data ID	Number of Sentences	Move Structure
ER-01	21	1 3 2 3	ER-26	97	1 2 1 2 1 2 1 2 1 2 1 2
ER-02	9	1 3	ER-27	15	1 2 3
ER-03	15	U 2 3	ER-28	25	1 3
ER-04	26	1 2 1 2 3	ER-29	32	1 3
ER-05	8	1 2 3	ER-30	12	1 3 1 3
ER-06	9	1 2 3	ER-31	14	1 3
ER-07	4	1 2 3	ER-32	22	1 3
ER-08	23	1 2 3 1 3	ER-33	42	1 2 1 2 3 1 3 1 3
ER-09	14	1 3	ER-34	22	1 3 1 3
ER-10	38	1 2 1	ER-35	14	1 2 1 3 1
ER-11	10	1 3	ER-36	11	3 1 3
ER-12	76	1 3 1 3 1 3	ER-37	35	1 3 1 2 3
ER-13	10	1	ER-38	5	3
ER-14	16	1 2 3	ER-39	10	1 3 2 1 3 1
ER-15	37	1 3 1 3 1 3 1 3	ER-40	8	1 2 3
ER-16	52	1 3	ER-41	64	1 2 1
ER-17	9	1 2 1 3	ER-42	36	1 3
ER-18	40	1 2 3	ER-43	25	1 3
ER-19	5	1 3	ER-44	9	1 3
ER-20	15	3 1 3	ER-45	17	1 2 1 2 3
ER-21	8	1 2 3	ER-46	29	1 3
ER-22	26	1 3	ER-47	53	1 3 1 3
ER-23	26	1 2 1 2 3	ER-48	52	1 3 1 2 1 2 1 2 1 2 1 2
ER-24	50	1 2 1 2 1	ER-49	34	3 1 3 1 3
ER-25	18	1 3	ER-50	6	1 3

While a number of KRs strictly follow the original CARS model, the ERs showed a rather liberal form of Move structure, with the most noticeable pattern being M1-M3, without Move 2 or any similar form of WM 2. 15 out of 50 ER sources (ER 2, 11, 16, 19, 22, 25, 28, 29, 31, 32, 42, 43, 44, 46, 50) reflect this pattern, and most of them mention the limitations of previous studies in the following section rather than by simply adding one or two sentences on this matter in the introduction.

Another liberal form found in the ER data is the presence of only one Move in the introduction section. There are 2 ERs which feature only Move 1 (ER 13) or Move 3 (ER 38) and the writers of those two introductions put more detailed information in the section following the introduction.

A rather typical pattern also found in the data is characterized by ending with

Move 1 (ER 10, 24, 35, 39, 41) or Move 2 (ER 48) instead of Move 3. This unexpected ending with a different Move is detected in two KRs (KR 41, 45) as well. Most introductions ending with Move 1 tend to raise the need for the study in the target field once again, which has already been proposed in the preceding Move 1. The only introduction that ends with Move 2 shows the highly recursive pattern of five M1-M2 sequences, and the section immediately following this introduction presents the purpose of the study (M3) with the title “An Alternative Approach.” After stating the limitations and problems of previous studies in the introduction, the writer strategically locates the importance of the study in a separately designated section following the introduction.

These structural changes may reflect evolving aspects of research papers based on social contexts as well as recent research article trends such as the increasing attempts to incorporate more information into the study and to provide a more argumentative stance (Swales, 1990), aspects that are well represented in the ER data as well.

2. Frequency of Steps

The structure of Steps, which are subcategories of each Move, is generally composed of three Steps in Moves 1 and 3 and another Step with 4 options (1A, 1B, 1C and 1D) in Move 2. The way writers strategically develop their opinions with logical grounds can thus be well reflected in the Step options that they have chosen for specific reasons. Notable features concerning the use of Steps are found in each group and imply certain distinctions according to academic proficiency level and the first language variable. The percentages of all Steps used by the four different groups in Moves 1, 2, and 3 are presented in Table 6.

The percentages of Steps 1, 2 and 3 used in Move 1 in the MT data are similar to those of the DD data, but writers of the latter group tend to state general information on the topic (M1-2) and to introduce previous studies (M1-3) to a slightly greater extent than those of the former group. Compared to the two expert groups, however, MTs and DDs show a much lower proportion of the use of Step 3. These results could possibly be attributed to the way writers in each group present previous studies apart from their own opinions. Since Swales (1990) considers statements without any specific references such as the name of the researcher as belonging to Step 2 (Making topic generalization),

TABLE 6**Preferred Steps in Each Move**

Move-Step	MT	DD	KR	ER
M1-1 (Claiming centrality)	80	105	84	47
% of total	4.2	3.3	8.9	3.7
M1-2 (Making topic generalizations)	413	791	232	359
% of total	21.8	24.6	24.6	28.6
M1-3 (Reviewing items of previous research)	374	767	293	511
% of total	19.4	23.8	31.0	40.7
M2-1A (Counter-claiming)	0	4	0	0
% of total	0.0	0.1	0.0	0.0
M2-1B (Indicating a gap)	53	137	49	37
% of total	2.8	4.3	5.2	3.0
M2-1C (Question-raising)	21	39	20	35
% of total	1.1	1.2	2.1	2.8
M2-1D (Continuing a tradition)	0	0	0	1
% of total	0.0	0.0	0.0	0.1
WM2 (Weak Move 2)	158	173	23	0
% of total	8.3	5.4	2.4	0.0
M3-1 (Outlining purposes & Announcing present research)	400	745	225	208
% of total	21.1	23.1	23.8	16.6
M3-2(Announcing principal findings)	9	6	0	0
% of total	0	0.2	0.0	0.0
M3-3 (Indicating RA structure)	188	303	1	38
% of total	9.9	9.4	0.1	3.0
M3-v (Announcing the value of the study)	35	37	13	8
% of total	1.8	1.1	1.4	0.6
Un-id (Un-identified Move)	165	113	5	10
% of total	8.7	3.5	0.5	0.8
Total	1896	3220	945	1254

*Note 1: Numbers in the table refer to the number of sentences.

*Note 2: % of total refers to the proportion of each Step occupied within each Move.

most relevant statements without clear reference information in the MT and DD data are consequently classified into Step 2. The two expert groups, on the other hand, show a clear-cut separation between what the writers think and what they have cited from previous studies either directly or indirectly, as shown below:

[Direct reference]

Grabe and Kaplan (1996) explained that vocabulary knowledge is important for novice writers... (KR 4)

Nesi and Gardner (2012) have shown how the genres that students are expected to write change as they progress... (ER 26)

[Indirect reference]

...researchers in the area of second or foreign language, or L2, have found that strategies are important for reading comprehension (Anderson, 1991, 2005; Bernhardt, 1991; Chamot, 2005a; Cohen & Macaro, 2007) (KR 13)

For example, scholars depict coherence and cohesion relations (Halliday and Hasan, 1976) or the hierarchical structure of discourse (Mann and Thompson, 1988; Nattinger and Decarrico, 1992...), and document information flow (Prince, 1981; Givon, 1983) or... (ER 45)

When it comes to the distinction based on the first language difference, the more frequent use of Step 1 in the KR data is quite remarkable, with the percentage of use of Step 1 in KRs being more than double that of ERs. This is similar to the results of Lee (2001), who partly compares research articles written by native English writers and Korean writers, and this indicates that KRs devote more space to elucidating the need for and significance of the study in the target area. However, proclaiming the need for the study directly rather than in a roundabout way is not considered typical in the Korean writing style, a point which is worthy of further study.

The most significant difference in Move 2 in each group can be found in the use of WM2, which is concerned with the educational situation in Korea. These rather on-site based statements are highly used in the MT, DD and KR data in frequencies that increase along with the order of academic proficiency, which implies that the less academic proficiency the writers have, the greater the tendency they will exhibit to refer to actual problems around them rather than provide logical grounds based on previous studies.

In terms of Step 1 and its options A, B, C, and D in Move 2 (M2-1A, M2-1B, M2-1C, and M2-1D), the most preferred and frequently used Step in every group is Step 1B, which points out the lack of studies. The various statements instantiating this Step have quite similar textual forms, employing certain phrases such as 'limited number of research/studies' (MT 6, 25, DD 3, KR 6, ER

43), 'little research has been done/conducted/carried out' (MT 3, 8, 23, DD 5, 11, 12, 30, 38, 47, 50, ER 5), and 'few studies addressed the issue/have been' (MT 24, 27, 31, 37, 39, 45, DD 4, 9, 11, 17, 20, 24, 40, 42, KR 15, 18, 27, ER 1, 10, 17), as well as more mitigated statements such as 'to my knowledge, there have been no studies to/it is the first to do' (DD 11, ER 29, 36).

The second most preferred Step in all groups is Step 1C, but the ways in which the problems of previous studies are stated differs with each group. Rather conclusive phrasing and modalities are found in the MT data in particular, especially when compared to DDs and KR, which tend to leave space for the subjective assumptions of readers. Relevant examples are provided below:

Though past findings contributed tremendously to the field, they cannot escape the shortcomings. (MT 11)

Much of research has uptake to examine whether feedback is effective on L2 learning but uptake does not seem to be appropriate measurement for explicit and implicit knowledge. (DD 38)

However, most early studies were conducted with relatively small numbers of participants and with measures of complexity, accuracy and fluency, using T-unit or Complex T-unit. (KR 8)

Conclusive and rather assertive statements are also revealed in the ER data, but the major difference from those of the MT data is in the occurrence of logical grounds accompanying detailed and objective information, as shown below:

More importantly, perhaps, the emergent features that they identify are actually very problematical for models of bilingual lexicons and it is difficult to see how their agents would fare in a bilingual environment. (ER 48)

Critical statements based on precise information in the ER data also result in similar percentages for the use of Step 1B and 1C. Unlike the other groups, which mainly point to the lack of studies (Step 1B), writings of the ER group go further to state the actual flaws of previous studies explicitly (Step 1C). This can

be considered along with the higher rate of M1-3, which serves to introduce previous studies, since this paired M1-3/M2-1C pattern appears in several ERs.

The proportion of M3-1 is consistent in every group except the ER group. The comparatively smaller percentage of M3-1 use in the ER data may be related to the absence of Move 3 in a few ER introductions (ER 10, 13, 24, 41), noted in 4.1.1 above. That is, native English-speaking experts who prefer to use more space for detailed information do not provide it in the introduction section but save it for a separate section.

Turning to M3-3, the main reason for the high proportion of this Step in both MT and DD groups in particular could be the specific conventions of information structure for theses and dissertations, most of which include a subsection for stating the outline of research within the introduction.

Another significant Step, but one not proposed by Swales in his original model, is M3-v, which serves to announce the value of the study. This Step is found in every group, thus the need for this additional Step is worth reconsideration, as Anthony (1999) also suggests.

V. CONCLUSION

The present study aimed to identify distinct features found in the introduction sections of different research papers, specifically master's theses (MT), doctoral dissertations (DD), and research articles written by Korean experts (KR), and native English-speaking experts (ER), on the basis of academic proficiency level and the native language variable.

Swales' CARS model, the basic standard of organizational structure for research-based writings, was adopted to identify certain patterns in introduction development in writings from each of the four groups, defined in terms of Move structure and Step use. The most significant point arising from different academic proficiency levels was the frequent emergence of the Moves Un-id and WM2 in the MT and DD data, which featured the most non-linear and irregular Move patterns. These two additional Moves, reflecting rather general and situational statements, were strategically used by student writers who do not have enough expertise in their fields of study, but who have relevant experience. Their lack of specific knowledge was also revealed through the

insufficient referential information, compared to the expert writers, who cited relevant previous studies with clear source information.

The emergence of Un-id Move was interpreted through *ki-seung-chon-kyul*, the traditional development pattern used in Korean writings (Lee, 2001). That is, *ki*, which is the counterpart of the introduction in formal writing but different in some ways, provides general information as a stepping stone rather than using straightforward means to guide readers. This type of introduction, however, may run the risk of giving an obscure impression to a reader attempting to get the gist. The use of WM2, on the other hand, can be seen as reflecting particular cultural traits based on collectivism and Confucianism, which focus more on group harmony rather than the prominence of the individual. These traits were well reflected in the avoidance of direct criticism of previous studies (M2) and in the statement of current situations (WM2) as alternative means, and help to explain a few occurrences of WM2 in the KR data.

A distinction in organizational structure based on the native language variable was detected between the KR and ER groups regarding the degree to which writers stuck to the basic conventional framework. While KRs kept to original Move structures (e.g., M1-M2-M3) and recursive Move patterns (e.g., M1-M2-M1-M2-M3) the most, ERs had rather liberal patterns featuring the omission of certain Moves (e.g., M1-M3), the use of only a single Move (e.g., M1) and the selection of endings other than M3 (e.g., M1-M2-M1-M2). The most likely explanation for this distinction may be related to some vulnerable points of the non-native writers, who showed relatively insufficient competence in academic writing and a strong attachment to conventional writing formalities as an alternative strategy. The native English-speaking experts' preference for structural unconventionality, on the other hand, reflects the evolving nature of the form of research articles, which may continue to change on the basis of social context.

REFERENCES

- Ancarno, C. (2005). The style of academic e-mails and conventional letters: Contrastive analysis of four conversational routines. *Iberica*, 9, 103-122.
- Anthony, L. (1999). Writing research article introductions in software engineering: How accurate is a standard model? *IEEE Transactions on Professional Communication*, 42, 38-46.
- Askehave, I., & Swales, J. M. (2001). Genre identification and communicative purpose: A problem and a possible solution. *Applied Linguistics*, 22(2), 195-212.
- Becher, T., & Trowler, P. R. (2001). *Academic tribes and territories: Intellectual enquiry and the culture of disciplines*. Buckingham: Open University Press.
- Belcher, D. (1994). The apprenticeship approach to advanced academic literacy: Graduate students and their mentors. *English for Specific Purposes*, 13, 23-34.
- Bhatia, V. K. (1993). *Analyzing genre: Language use in professional settings*, London: Longman.
- Bhatia, V. K. (2008). Genre analysis, ESP and professional practice. *English for Specific Purposes*, 27, 161-174.
- Brett, P. (1994). A genre analysis of the results section of sociology articles. *English for Specific Purposes*, 13(1), 47-59.
- Bruce, I. (2008). *Academic writing and genre*. Norfolk: Continuum.
- Bunton, D. (2002). Generic moves in Ph.D. thesis introductions. In J. Flowerdew (Ed.), *Academic discourse* (pp. 57-75). London: Pearson Education.
- Choi, Y. H. (1988). *Textual coherence in English and Korean: An analysis of argumentative writing by American and Korean students*. Unpublished doctoral dissertation. University of Illinois at Urbana-Champaign.
- Crookes, G. (1986). *Task classification: A cross-disciplinary review* (Tech. Rep. No. 4) Honolulu: University of Hawaii at Manoa, Social Science Research Institute, Center for Second Language Classroom Research.
- Dillon, G. (1991). *Contending rhetoric: Writing in academic disciplines*. Bloomington: Indiana University Press.
- Dudley-Evans, T. (1986). Genre analysis: An investigation of the introductions and discussion sections of MSc dissertations. In M. Coulthard (Ed.), *Talking about text* (pp. 128-145). Birmingham: Birmingham University.

- Dudley-Evans, T. (1994). Genre analysis: An approach for text analysis for ESP. In M. Coulthard (Ed.), *Advances in written text analysis* (pp. 219-228). London: Routledge.
- Dudley-Evans, T., & M. J. St. John. (1998). *Developments in English for specific purposes: A multi-disciplinary approach*. Cambridge: Cambridge University Press.
- Graetz, N. (1985). Teaching EFL students to extract structural information from abstract. In J. M. Ulijn & A. K. Pugh (Eds.), *Reading for professional purposes* (pp. 123-135). Leuven: Belgium.
- Hofstede, G. (1986). Cultural differences in teaching and learning. *International Journal of Intercultural Relations*, 10, 301-320.
- 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.
- Hopkins, A., & A. Dudley-Evans. (1988). A genre-based investigation of the discussion sections in articles and dissertations. *English for Specific Purposes*, 7, 113-122.
- Hunston, S. (1994). Evaluation and organization in a sample of written academic discourse. In M. Coulthard (Ed.), *Advances in written text analysis* (pp. 191-218). London: Routledge.
- Hyland, K. (2003). Dissertation acknowledgements: The anatomy of a cinderella genre. *Written Communication*, 20(3), 242-268.
- Hyland, K. (2004). Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing*, 13, 133-151.
- Hyland, K. (2007). Genre pedagogy: Language, literacy and L2 writing instruction. *Journal of Second Language Writing*, 16, 148-164.
- Hyland, K., & Milton, J. (1997). Qualification and certainty in L1 and L2 students' writing. *Journal of Second Language Writing*, 6, 183-205.
- Jung, C. K. (2013). Genre analysis: Undergraduate engineering laboratory report (UELR). *Korean Journal of Applied Linguistics*, 29(3), 33-73.
- Lee, S. (2001). A study of Korean and English research paper introductions based on Swales' Move analysis. *Korean Journal of the Applied Linguistics*, 17(2), 23-53.
- Najjar, H. Y. (1990). *Arabic as a research language: The case of the agricultural sciences*. Unpublished doctoral dissertation, University of Michigan.

- Paltridge, B. (1997). Thesis and dissertation writing: Preparing ESL students for research. *English for Specific Purposes*, 16, 61-70.
- Paltridge, B., & Starfield, S. (2007). *Thesis and dissertation writing in a second language: A handbook for supervisors*. London: Routledge.
- Park, E. S. (2006). A genre analysis of introductions in Korean theses based on the CARS+3 model. *Journal of Korean Language Education*, 17(1), 191-210.
- Salager-Meyer, F. (1992). A text-type and move analysis study of verb tense and modality distribution in medical English abstracts. *English for Specific Purposes*, 11(2), 93-113.
- Samraj, B. (2002). Introductions in research articles: Variations across disciplines. *English for Specific Purposes*, 21, 1-17.
- Samraj, B. (2005). An exploration of a genre set: Research article abstracts and introductions in two disciplines. *English for Specific Purposes*, 24, 141-156.
- Samraj, B. (2008). A discourse analysis of master's thesis across disciplines with a focus on introductions. *Journal of English for Academic Purpose*, 7, 55-67.
- Shaw, P. (1991). Science research students' composing processes. *English for Specific Purposes*, 10, 189-206.
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J. (2004). *Research genres*. Cambridge: Cambridge University Press.
- Swales, J., & Najjar, H. (1987). The writing of research article introductions. *Written Communication*, 2(4), 175-191.
- Tang, R., & John, S. (1999). The 'I' in identity: Exploring writer identity in student academic writing through the first person pronoun. *English for Specific Purposes*, 18, 23-39.
- Taylor, G., & Chen, T. G. (1991). Linguistic, cultural and sub-cultural issues in contrastive discourse analysis: Anglo-American and Chinese scientific texts. *Applied Linguistics*, 12, 319-336.
- Thompson, D. (1993). Arguing for experimental facts in science. *Written Communication*, 10(1), 106-128.
- Wood, A. S. (1982). An examination of the rhetorical structures of authentic chemistry texts. *Applied Linguistics*, 3, 121-143.

THE AUTHORS

Hohsung Choe is Associate Professor of TESOL & English Linguistics at Hankuk University of Foreign Studies. He received his PhD from Indiana University, Bloomington (Email: hohsung@naver.com).

Bo Hyun Hwang has been teaching English as a foreign language in Korea. She received her MA from Hankuk University of Foreign Studies (Email: hamssyhwang@naver.com).

THE AUTHORS' ADDRESSES

Hohsung Choe
Hankuk University of Foreign Studies
Department of TESOL & English Linguistics
81 Oedae-ro, Mohyeon-myeon, Cheoin-gu
Yongin-si, Gyeonggi-do, 449-791 Korea
Mobile Phone: 031-330-4974

Bo Hyun Hwang
Hankuk University of Foreign Studies
General Graduate School (Dept. of English Linguistics)
107 Imun-ro, Dongdaemun-gu
Seoul, 130-791 Korea
Mobile Phone: 010-8912-0121

Received on December 31, 2013
Revised on January 29, 2014
Revised version revised on February 28, 2014