

A Genre-Based Investigation of Research Article Abstracts^{*}

Eunsook Shim

Sangji University

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Given that a research article (RA) abstract should include a summary of the study in a condensed way and also highlight the importance of the research, RA abstract writing can be challenging to novice academic writers. This paper is to examine the rhetorical moves and linguistic features of abstracts in published research articles. For this study, forty research article abstracts from two journals (*TESOL Quarterly* and *Applied Linguistics*) issued in 2012 were analyzed. The results show that most abstracts contain the obligatory four moves: Purpose, Methods, Results, Conclusions (Move 2-3-4-5), and are characterized by the preference of *this* study/article, the use of *present* verb tense, *active* voice, and the use of *that* clauses in reporting findings. In order to produce effective texts, explicit genre-based approach to teaching writing can be applied for those who wish to be a member of academic discourse communities. The rhetorical variables from various academic fields should be noted.

[Genre Analysis/Abstract Writing/English for Academic Purpose]/
장르분석/초록작성/학문목적교수법]

I. INTRODUCTION

Academic writing can be challenging to novice academic writers who wish to enter a particular academic discourse community. Hanauer and Englander (2011) statistically quantified the burden of writing research articles in English as a second/foreign language by using a survey from nonnative English-speaking scholars from a range of scientific disciplines. Evidently, writing academic research articles in English can be “a significant burden for non-native English-speaking (NNES) authors” (Willey & Tanimoto, 2012, p. 249). Academic journal articles often require including a short length of abstract in English.

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It is assumed that the writing of abstract can be simply a summary of a study but a writer needs to decide ‘how’ to summarize the study and ‘what’ to include or exclude in the abstract. In order to attract the academic readers, authors may need to master the conventional textual organization and other rhetorical practices that are established by the English-speaking academic community (Connor, 2011; Martín-Martín, 2003).

In recent years, the research article (RA) abstract, as one of the important academic genres, has been of great interest. Abstracts can be defined as “a description or factual summary of the much longer report, and is meant to give the reader an exact and concise knowledge of the full article” (Bhatia, 1993, p. 78). Some argue that RA abstracts may function as “a time-saving device by informing the readers about the exact content of the article” (Martín-Martín, 2003, p. 26), or as an evaluative device (Hyland & Tse, 2005a). In some contexts, RA abstracts can function as a promotional device because authors need to “sell themselves in order to get published” in the writing of abstracts (Cava, 2011, p. 77).

The purpose of the study is to investigate the textual organization of abstracts and the linguistic features of the abstracts in published research articles. In order to produce successful academic texts, novice academic writers should understand the textual organization and crucial linguistic features constituting the texts, which are favored by the members of a specific disciplinary group (Huang, 2010; Martín-Martín, 2003; Ren & Li, 2011). Findings from the genre-based investigations can provide pedagogical implications and guidelines for academic writing courses.

II. LITERATURE REIEW

Genre¹ theorists intend to delineate the rhetorical moves of particular genres and to examine the linguistic features of the genres such as hedging, verb tense, or choice of voice. Especially, the genre-based investigations of research article have been extensively studied since Swales’ (1990) seminal study. Other genres such as grant proposal, conference abstracts (Cutting, 2012), and dissertation abstracts (Al-Ali & Sahawneh, 2011) have been studied. Recently, the research article abstract has aroused great interest (e.g., Anderson & Maclean, 1997; Cava, 2011; Gillaerts & Van de Velde, 2010; Graetz, 1985; Huckin, 2001; Hyland & Tse, 2005a, 2005b; Lorés, 2004;

¹ Genre is “a name for a type of text or discourse designed to achieve a set of communicative purposes. The research article is a genre, and various parts of it, such as the abstract and discussion, are part-genres” (Swales & Feak, 2009, p. 1).

Martín-Martín, 2005; Santos, 1996; E. Shim, 2005; Swales & Feak, 2009; Van Bonn & Swales, 2007).

One of the important studies of abstracts is that of Graetz (1985) on the rhetorical structure of English abstracts in specific disciplines. Graetz examined 87 abstracts drawn from a variety of fields and claimed that the most common structure for an abstract is a four-part arrangement, consisting of Problem-Methods-Results-Conclusions (PMRC). The language of abstract was characterized as followings:

The abstract is characterized by the use of past tense, third person, passive, and the non-use of negatives. It avoids subordinate clauses, uses phrases instead of clauses, words instead of phrases. It avoids abbreviation, jargon, symbols and other language shortcuts which might lead to confusion. It is written in tightly worded sentences, which avoid repetition, meaningless expressions, superlative, adjectives, illustrations, preliminaries, descriptive details, examples, footnotes. In short it eliminates the redundancy which the skilled reader counts on finding in written language and which usually facilitates comprehension (p. 125).

Although the characteristics of an abstract may have been changed since Graetz's (1985) study, this conventional linguistic realization and the textual organization can be valuable to novice writers because these signals can provide "a clear guidance" to write the writers' ideas effectively in writing RA abstracts (Pho, 2008, p. 232). Another commonly used framework in analyzing research article (RA) abstracts is Swales' (1990) IMRD pattern (i.e., Introduction, Methods, Results, Discussion). In his analysis of RA from various academic fields, Swales speculated that most RA abstracts may reflect the IMRD pattern, which is the macro-structure of the research articles. This well-defined scheme has been employed in many studies on RA abstract (e.g., Martín-Martín, 2003; Salager-Meyer, 1990, 1991; Santos, 1996).

Integrating the IMRD pattern, Santos (1996) reframed the five move units. Each move is related to the IMRD framework: Introduction (Move 1, 2), Method (Move 3), Results (Move 4), and Discussion (Move 5). The first two sub-moves units, typically appearing at the beginning of abstracts, can be used in justifying their study in their research territory. On the basis of Swales' (1990) scheme, she postulated an additional move (i.e., Move 1. Situating the Research) to account for the structure of abstracts in applied linguistics. The five-move unites used in her study are given in Table 1 (p. 485):

TABLE 1
A Framework for Abstract Analysis

Moves	Function/Description
Move 1: Situating the Research <i>Submove 1A – Stating current knowledge</i> <i>Submove 1B – Citing previous research</i> <i>Submove 1C – Extended previous research</i> <i>Submove 2 – Stating a problem</i>	Setting the scene for the current research (Topic generalization)
Move 2: Presenting the Research <i>Submove 1A – Indicating main features</i> <i>Submove 1B – Indicating main purpose</i> <i>Submove 2 – Hypothesis raising</i>	Stating the purpose of the study, research questions and/or Hypotheses
Move 3: Describing the Methodology	Describing the materials, subjects, variables, procedures, etc.
Move 4: Summarizing the Findings	Reporting the main findings of the study
Move 5: Discussing the Research <i>Submove 1 – Drawing conclusions</i> <i>Submove 2 – Giving recommendations</i>	Interpreting the results/findings and/or giving recommendations, implications/applications of the study

In a similar vein, Pho (2008) employed this five-move arrangement to analyze 30 research article abstracts in applied linguistics (*The Modern Language Journal*, *TESOL Quarterly*) and educational technology (*Computers & Education*) journals. The findings showed that there are three obligatory moves in abstracts in these two disciplines, i.e., presenting the research (Move 2), describing the methodology (Move 3), and summarizing the results (Move 4). Based on the five-move framework, Ren and Li (2011) examined the rhetorical moves in the abstracts of Chinese master's English thesis and published research articles in applied linguistics. They reported that five rhetorical moves in developing abstracts are commonly used in the abstracts written by both experts and student writers. However, experts tend to be "more selective in their use of the moves to best promote their papers" and student writers tend to include all the moves to be "more informative of the content and structure of their theses" (p. 165). Martín-Martín (2003) investigated the rhetorical structure of RA abstracts written in English for international journals and those written in Spanish in the area of experimental social sciences. He revealed that the Spanish RA abstracts largely followed the four basic structural units: introducing the study, presenting the methodology, summarizing the results, and describing the research.

In the cross-disciplinary study of RA abstracts, Huckin (2001) found that abstracts from biomedical articles often exclude the purpose of the study (cited in Samraj, 2005, p. 143). Hyland (2000) found that abstracts from more soft disciplines (e.g., sociology and philosophy) included introductions (Move 1) than abstracts from hard disciplines (e.g., physics and mechanical engineering). Studies such as Samraj (2005) explored some

degree of divergence among genres and different fields. Samraj compared the structure of two genres (i.e., research article introduction and abstracts) from two fields (i.e., Conservation Biology and Wildlife Behavior). The research articles introductions and abstracts in Conservation Biology seemed to be similar in function and organization but the same two genres in Wildlife Behavior appeared to be different. For instance, the methods move in Wildlife Behavior did not appear prominently in the abstract, suggesting that the abstract is not a synopsis of the research article (Samraj, 2005). This divergence among fields was explained by the fact that “the theory versus application dichotomy may play a role in influencing genre structure” (Samraj, 2005, p. 152).

In addition to the textual organization of abstracts, some researchers investigated certain linguistic variables which may affect the function of an abstracts. Kaplan et al. (1994) analyzed the textual organization and also linguistic features of abstracts submitted to an international conference in the field of applied linguistics (a corpus of 294 abstracts). They found the use of past tense verbs, third person pronouns, passive constructions, occasional parenthetical citations, subordinate clauses, nominalizations, a full of jargon, acronyms, and the use of strategies of being topic-based and detached rather than interactional and involved. In a study of abstracts from three journals, Pho (2008) analyzed ‘authorial stance’ in different abstract moves in the fields of applied linguistics and educational technology. She suggested that a combination of linguistic features such as grammatical subjects, verb tense and voice can assist to distinguish moves in the abstract (p. 231). Others studied academic criticism in research article abstracts (Martín-Martín & Burgess, 2004) and evaluation in research article abstracts in the narrative and hard sciences (Stotesbury, 2003).

For instance, Stotesbury (2003) analyzed 300 research article abstracts in the field of the humanities (e.g., applied linguistics, anthropology), social (e.g., education, psychology), and natural sciences (e.g., ecology, botany, animal biology). Her study of the research article abstracts across disciplines revealed that attitudinal language and modal constructions of various kinds were used in the abstracts. Martín-Martín and Burgess (2004) studied 160 research paper abstracts written in English and Spanish in two disciplines (phonetics and psychology) of the social sciences. They reported that the writers in the English abstracts preferred to convey criticism in an impersonal and indirect way, and in the Spanish texts the use of personal and direct was occurred more frequently. This rhetorical variation was explained by “the influence of the socio-pragmatic context of publication, that is, the relationship between the writers and discourse community they are addressing” (Martín-Martín & Burgess, 2004, p. 171).

Five distinguishable functions of RA abstracts have been suggested (Huckin, 2001; Bordage & McGaghie, 2001, cited in Swales & Feak, 2009, p. 2):

1. They function as stand-alone *mini-texts*, giving readers a short summary of a study' topic, methodology, and main findings.
2. They function as *screening devices*, helping readers decide whether they wish to read the whole article or not.
3. They function as *previews* for readers intending to read the whole article, giving them a road-map for their reading.
4. They provide *indexing help* for professional abstract writers and editors.
5. They provide *reviews* with an immediate oversight of the paper they have been asked to review.

Although the study of abstracts has largely aroused great interest, the research on the language of abstracts is “still relatively scarce and many details of their linguistic features are unknown” (Cava, 2011, p. 77). It is worth mentioning that the different expectations of the members of the international or national academic discourse communities can create these rhetorical variables among fields and genres (Martín-Martín, 2005). This paper is to investigate the rhetorical moves in the abstract and linguistic features which can characterize published research article abstracts in the field of applied linguistics.

III. METHOD

1. Data

A total of forty-three research article abstracts were selected from two journals, *TESOL Quarterly* and *Applied Linguistics*: 20 from *TESOL Quarterly*, 23 from *Applied Linguistics*. Considering that the rhetorical structure and linguistic features of empirical research articles can be different from those of theoretical research articles, only abstracts of data-based research articles were included in the corpus (Swales, 1990; Pho, 2008). Articles without abstract and other genres such as *Forums*, *Book Reviews*, or *Research reports* were excluded, resulting in a total of 40 articles. The two journals were chosen because they are internationally renowned and have high prestige in the field. By restricting to only two journals, systematic variation due to editorial guidelines can be possibly controlled (Gillaerts & Van de Velde, 2010). Only research articles published in the 2012 issues of the two journals were included in the corpus.

TABLE 2
A Framework for Abstract Analysis

Moves	Function/Description	Question asked
Move 1 – Situating the Research	Setting the scene for the current research (Topic generalization)	<i>What has been known about the field/topic of research?</i>
Move 2 – Presenting the Research	Presenting the study and/or stating the purpose of the study, research questions, or hypotheses	<i>What is the study about?</i>
Move 3 – Describing the Methodology	Describing the materials, subjects, variables, procedures, etc.	<i>How was the research done?</i>
Move 4 – Summarizing the Findings	Reporting the main findings of the study	<i>What did the research find?</i>
Move 5 – Discussing the Research	Interpreting the results/findings and/or giving recommendations, implications, applications of the study	<i>What do the results mean? So what?</i>

The framework for abstract analysis is shown in Table 2. In an analysis of rhetorical organization, Pho's (2008) framework, which was adopted from Santos' (1996) model, was used as the analytic framework for the rhetorical structure of the abstracts. This move analysis aims to determine the communicative purposes of a text by categorizing text units according to the communicative purpose of each unit. Move is "a functional term that refers to a defined and bounded communicative act that is designed to contribute to one main communicative objective" (Lorés, 2004, p. 282). According to Pho, the identification of moves can be based on both a top-down approach and a bottom-up approach. The top-down approach means that researchers distinguish moves on the basis of content. The bottom-up approach means that they use particular lexical and grammatical signals. In this present study, the identification of moves was based on the content of the text and also typical linguistic clues in each move were used. It seems to be common to analyze 'a move' in a sentence level but due to the succinct form of RA abstracts, a move was realized from several sentences to phrases in the present study. An analysis of the linguistic features of the RA abstracts was carried out to identify the features. Linguistic features identified in previous studies of RA abstracts (i.e., verb tense, voice, an evaluative 'that' construction) were taken into consideration (Gratez, 1985; Hyland, 2003; Lorés, 2004; Pho, 2008).

IV. RESULTS AND DISCUSSION

The rhetorical patterns of the abstracts from the two journals (*TESOL Quarterly* and *Applied Linguistics*) were analyzed and the structure was compared in each journal. Most abstracts in this study tend to contain five moves. Below is a typical five-move

structure of the RA abstracts. A highly clear linguistic signal can be found (see underlined sentences, my emphasis):

(1) [MOVE1] The Native English Teachers (NETs) Scheme has been in place for over 20 years in secondary schools in Hong Kong and yet how students perceive these teachers is under-researched. [MOVE2] This article reports a study which analyses student perceptions of the advantage and disadvantages of learning English from NETs and their non-native counterparts, local English teachers (LETs). [MOVE3] Data were collected through semi-structured group interviews with 30 secondary students studying in three different schools in Hong Kong. Content data analysis was conducted, and main themes that emerged from interview transcripts were categorized. [MOVE4] Results show that the perceived advantages of LETs include their proficiency in students' L1, their knowledge of students' learning difficulties, the ease students experience in understanding their teaching, and in communication. The perceived advantages of NETs are their good English proficiency and ability to facilitate student learning. The disadvantages of one category of teachers appear to be the reverse of the advantages of another. Data also show that some students experience anxiety when encountering NETs and tend to prefer certain teaching styles. [MOVE5] This study has significant implications for classroom teaching practice and teacher professional development. (TQ#10)

The author in the above example opened with a gap in the past 20 years research world and then introduced the present study. Then, data collection procedures were described and the results of the study were presented. Almost half of the abstract was devoted to the results (82 words out of 185 words, 44%). Finally, it concluded with a brief closing remark (i.e., significant implications of the research).

As shown in Table 3, most of the abstracts from TQ and AL had four to five moves and almost all the abstracts contained Move 2 (*Presenting the research*), Move 3 (*Describing the methodology*), Move 4 (*Summarizing the findings*), and Move 5 (*Discussing the Research*). The results of the analysis of the abstracts suggest that abstracts from both journals generally contain obligatory four moves: Purpose, Methods, Results, Conclusions (Move 2-3-4-5). Situating the research in the field (Move 1) was not much favored in abstracts. These findings are similar with those of Santos (1996) and Pho (2008).

TABLE 3
Patterns of Occurrence of Moves in the Abstracts from the Two Journals

Moves	No(%) of TQ abstracts containing move	No(%) of AL abstracts containing move	Total
Move 1–Situating the Research	9(45%)	8(36%)	17(40%)
Move 2–Presenting the Research	20(100%)	22(100%)	42(100%)
Move 3–Describing the Methodology	18(90%)	17(77%)	35(83%)
Move 4–Summarizing the Findings	16(80%)	16(73%)	32(76%)
Move 5–Discussing the Research	14(70%)	16(73%)	30(71%)

Although abstracts, mainly data-based (quantitative or qualitative) research, tend to contain most moves, it needs to be noted that some theoretical research articles are less likely to follow the four- or five- move patterns of the abstract. Given the move analysis is based on empirical research, it is not surprising that the structure of theoretical research may not be clearly identical.

1. Move 1 – Situating the Research

Move 1 provides “orientation to the reader in relation to where the writer is coming from while motivating the reader to examine the research to be reported” (Santos, 1996, p. 486). In this study, Move 1 was less likely to be typical in the field of Applied Linguistics, with only 17 occurrences of Move 1 (40%). This infrequency of situating the current research in the field suggests that RA abstracts may not require justifying the study to be reported. Instead, the authors in this study tend to invite immediately readers’ attention to the purpose of the present study.

The common two sub-move types of opening sentences (Move 1) can be done by stating current knowledge, citing previous research, or extending previous research, and/or stating a problem (Santos, 1996). These types of the statements were identified as shown in the following examples:

- (2) L2 requests in developmental pragmatics research are commonly investigated using non-interactive data collection techniques or sidelining the larger discourse sequence in which the request proper is embedded. (AL#23)
- (3) Integrated writing tasks that involve different language modalities such as reading and listening have increasingly been used as means to assess academic writing. Thus, there is a need for understanding how test-takers coordinate different skills to complete these tasks. (TQ#6)

Typically, the authors in Move 1 tend to inform the reader that a given topic is of considerable concern in current teaching and research.

Another strategy to offer credibility to a claim can be the citations of previous research (Hyland, 2003). Interestingly, citing previous research in Move 1 did not occur frequently. Only five abstracts (12%) contained the name of specific researchers in a text. Examples are given in (4) and (5):

- (4) With an increase in the number of learners and speakers of English as an additional language entering the English language teaching field, especially in Outer and Expanding Circle countries and some migrating into the Inner Circle countries (e.g., Jenkins, 2009), there is an urgent need to prepare, and understand the experiences of, English language teachers from diverse backgrounds in teaching English to speakers of other languages (TESOL) programs. (TQ#4)
- (5) Feedback on performance is a feature of professional training. Much feedback is delivered in post-observation conferences where a ‘trainer’ will discuss the ‘trainee’s’ performance with him/her. What transpires in these conferences, however, is ‘hidden from view’ (Heritage and Sefi 1992: 362) and the norms of interaction are largely unexamined in the literature. (AL# 21)

Instead of differentiating Move 1 and Move 2, Swales and Feak (2009) suggested that there are four basic types of opening sentences: (1) Starting with a real-world phenomenon or with standard practice (e.g., *Economists have long been interested in ...*); (2) Starting with purpose of objective (e.g., *The aim of this study is to examine the effects...*); (3) Starting with present researcher action (e.g., *We analyze corporate taxation returns...*); (4) Starting with a problem or an uncertainty (e.g., *The relationship ... remains unclear*). In this study, Type (1) and (4) frequently appeared in Move 1 and the other two types (Type 2, 3) can be discussed in Move 2.

2. Move 2 – Presenting the Research

Move 2 is to present the current research by starting with the purpose of the study or key features. All abstracts from the two journals contained a Move 2. This evidence means that presenting the purpose of the study is an obligatory move in the abstract genre. What is interesting here is that 84% percent of the writers begin with ‘*this study*’ or ‘*this article*’ in a subject position (90% in TQ; 78% in AL respectively), which is in line with the studies of Santos and Pho. The preference for ‘*this*’ can be explained “by the author’s effort to incorporate the abstract into the body of the paper” (Santos, 1996, p. 489).

Also, this can give “the sense of the immediate physical objects in front of the reader” (Pho, 2008, p. 241). Some examples are followed:

- (6) This study aims to investigate the effect of different types of glosses as well as no-gloss and glossed texts on L2 vocabulary learning. (TQ#3)
- (7) This study analyses question–answer (QA) sequences in second language tutorial interaction. (AL#22)

Of particular interest is the fact that the simple present tense was used predominately. As shown in Table 4, an analysis of the main verb tenses in this study found that the simple present tense is predominant (75%), contrary to the information in technical writing manuals (see examples of 8 and 9). Only a few writers (25%) used a past tense verb and none used verbs signifying the future. The subject phrase with a verb in the past tense was used in reporting methodology of the study (Move 3) and findings (Move 4).

TABLE 4
Verb Tense in TQ and AL

Tense	TQ	AL	Percentage
Simple Present	84(63%)	125(87%)	209(75%)
Simple Past	50(37%)	19(13%)	69(25%)
Total No. of verbs	134	144	278

- (8) This article reports on a qualitative study that explored the discursive positioning of native-speaking English teachers (NETs) in schools in Hong Kong. (TQ#1)
- (9) This study analyses intermediate and advanced learner–learner and learner–native speaker (NS) interaction looking for collaborative dialogue. (AL#29)

Pho (2008) argued that ‘*this article/paper*’ takes a present tense verb, whereas ‘*this study*’ takes a past tense. However, most authors in this study used a present tense verb (e.g., *This study analyses...*; *This article reports...*) and only two writers used a past tense verb after ‘*this study*’, merged with Move 3 or Move 4 as shown in (10) and (11):

- (10) This quasi-experimental study examined the effects of different focus-on-form techniques, and the durability of such effects, on adolescent beginners’ acquisition of request supportive moves. (TQ#2)

- (11) Despite the challenges presented by such curricula, this study found that one advantage of a standardized, standards-based curriculum is that it can support collaborative efforts between ESOL and mainstream teachers. (TQ#17)

This study shows that the most frequent tense and aspect in the areas of applied linguistics seems to be the present simple. As Pho (2008) reported, the most frequent tense and aspect used in the abstracts from MLJ (*The Modern Language Journal*) and TQ (*TESOL Quarterly*) journals was the present simple (67% and 80% respectively), which is similar to the present study. This predominance of the present tense can be interpreted by (a) the emphasis of a current ‘real-world’ phenomenon and (b) “the newsworthiness, as claims that are sufficiently interesting to a specialized audience to warrant reporting are made about current issues” (Santos, 1996, p. 488). It is noted that the research being undertaken by the writer is the current research trends in the field and a strategy of the verb tense choice can be employed for this purpose. However, it should be remembered that this present study analyzed only 2012 journal articles and further comparative studies may need to explore this results can be applicable to other journal articles.

3. Move 3 – Describing the Methodology

Move 3 indicates the design of the study such as participants, materials, instruments, or data analysis. Most abstracts used a clear signal such as *the participants were...*, and *the author conducted interviews* as in (12). Move 3 is exclusively in the past tense, contrary to Move 1 and 2 which were in the present tense. This predominant past tense use in Move 3 is not surprising because the reported study has already been conducted and the author reports what he or she did.

- (12) The participants were eight teachers who were employed in primary and secondary schools under the Hong Kong Government’s Native English Teacher scheme. The author conducted in-depth interviews with each participant ... (TQ#1)

Move 3 appeared as a separate move after Move 2 and did not occupy considerable textual space. In some cases, it was observed that Move 3 is merged with Move 2 by a nonfinite clause as in (13) and (14).

- (13) In this ethnographic self-reconstruction, the author represents the ways in which he negotiated the differing teaching practices and professional cultures of the periphery and the center in an effort to develop a strategic professional identity. (TQ#7)

- (14) This small-scale study investigates variation in the use of general extenders (e.g. *and everything, or something, and all that*) in the speech of a group of British children aged 7 to 11 years. (AL#30)

As shown in Table 5, a more interesting finding is that it is accompanied by a switch into the active voice (almost 80%), which is contrary to technical writing manuals. According to Pho (2008), more active verbs were found in the applied linguistics journals such as the TQ and MLJ journals, whereas more passive verbs were found in other journals such as the Computers & Education journal. This preference of the active voice can be explained by the features of the different fields and the authors' active stance in the field "to make generalizations about the topic" (Pho, 2008, p. 240).

TABLE 5
Voice in TQ & AL

Tense	TQ	AL	Total Verbs
Active	110(82%)	109(76%)	219(79%)
Passive	24(18%)	35(24%)	59(21%)
Total No. of verbs	134	144	278

Only 20% of the abstracts were in the passive forms as in (15).

- (15) Eleven Haitian women in both countries were interviewed to compare the way in which participants accessed key settlement information and services. (TQ#12)

4. Move 4 – Summarizing the Results

Move 4 provides a brief summary of the main findings of the research, which occupies considerable textual space. A typical example of a results statement is given in (16). In Move 4, the signaling occurs at the beginning of the stretch articulating the move. The most common signals are *results, findings, or evidence*.

- (16) The results of the investigation reveal gender-differentiated patterns in general extender use, and indicate that productive variants are differentially affected by processes collectively associated with grammaticalization. (AL#30)
- (17) My main finding is that there was little correspondence between the actual formulations recommended in the textbooks and ELF usage. (AL#32)

One strategy in Move 4 is the use ‘*that*’ clauses. Hyland and Tse (2005a, 2005b) found that ‘*that*’ clauses occurred frequently across six fields of abstracts. The ‘*that*’ clauses can be used to highlight the authors’ own findings (Swales & Feak, 2009). In this present study, there was a strong tendency to use an inanimate subject to give the major details of their own results.

- (18) The study shows that people draw upon a wide range of multilingual and multimodal resources to project new global identities. (AL# 31)
- (19) The findings show that the learner’s achievements depend both on their ability to interpret and... (AL# 34)
- (20) My main finding is that there was little correspondence between the actual formulations recommended in the textbooks and ELF usage. (AL# 36)

5. Move 5 –Discussing the Research

Most abstracts can be influenced by the presence of three rhetorical features: introducing the study (Move 2), presenting the methods (Move 3) and the results of the research (Move 4). This study shows that over 70% of the abstracts included Move 5 (i.e., significant implications of the study), which was composed of 1 or 2 sentences. Interestingly, most authors tended to attract readers to read the entire paper by emphasizing the implications of the study for specific audiences such as teachers or administrators. By telling the readers the significance of the research, the authors could attract the audience’s attention and lead them to read the whole article.

- (21) This study has significant implications for classroom teaching practice and teacher professional development. (TQ#10)
- (22) Implications for how national settlement policy affects individual immigrants and their language acquisition are analyzed in the discussion. (TQ#12)
- (23) This study has implications for teachers, schools, and teacher educators considering tools or structures that may already be in place, (TQ#17)
- (24) Results of this study have implications for administrator professional learning, teacher education, and teacher leadership. (AL#35)

The self-reference words, *I* or *we*, accompanied by the use of the reporting verb *suggest* (Hyland, 2003; Pho, 2008) can be used to make the authors’ presence explicit in Move 5. However, the findings of this present study are not in line with Hyland’s and Pho’s observation that writers tend to use self-mention at the end of the abstract for self-promotion. In this study, the authors did not favor these self-promotion strategies to

position them in relation to the paper, the research paradigm, and the world. Only a few instances were found in this study (see examples).

- (25) We argue for a more discursive approach to developmental data in interlanguage pragmatics that allows the identification of interactional correlates of proficiency. (AL#23)
- (26) We present both quantitative and qualitative analyses of learners' performance to illustrate their developing... (AL#28)
- (27) The authors argue that effective professional development activities must go beyond the delivery of information to support teachers' examination and revision of assumptions about students, teaching, and learning that guide their practice.

Instead of the self-promotion strategy, nonnumeric phrases were used (e.g. *Research into...*) or the reporting verb *suggest* (e.g. *It is suggested that...*) along with the passive constructions was also employed:

- (28) Research into other facets of reading instruction is required to balance various possibilities for increasing efficacy of reading instruction. (AL#26)
- (29) It is suggested that ESL teachers alert learners to the importance of grammatical associations in language comprehension. (AL#25)
- (30) It is hoped that the PHRASE List will provide a basis for the systematic integration (AL#32)

V. CONCLUSION

This study was to examine the textual organization and linguistic features of abstracts in published research articles from two journals (*TESOL Quarterly* and *Applied Linguistics*). A move structure of abstract in the field of applied linguistics journals can be suggested as shown in Table 6.

TABLE 6
A Move Structure of Abstract in the TQ & AL Journals

Moves	Function/Description
Move 1: Situating the Research (optional)	Setting the scene for the current research or Stating a problem
Move 2: Presenting the Research	Stating the purpose of the study
Move 3: Describing the Methodology	Describing the materials, subjects, variables, procedures, etc.

Move 4: Summarizing the Findings	Reporting the main findings of the study
Move 5: Discussing the Research	Giving recommendations, implications or applications of the study

The results show that most abstracts contain the obligatory four moves: Introducing the purpose of the study (Move 2), presenting the results followed by the methodology (Move 3-4) and discussing implications of the research (Move 5). Kaplan et al. (1994) characterized that conference abstracts are different in a number of ways from abstracts published in conference programs and in journals at the head of articles. However, this study shows that abstracts published in journals at the head of articles are similar in many ways from conference abstracts, especially the textual organization of the abstracts. There were a few different linguistic features such as *active* constructions, *present* verb tense or non-nominal conventions from Kaplan et al. (1994).

In this study, a few preliminary generalizations can be posited. RA abstracts can be characterized by the four rhetorical features (Move 2-3-4-5), the frequency of *this* study/article in a subject position, the use of *simple present* tense, *active* voice, and the use of evaluative *'that'* clauses in reporting findings. It should be noted that the scope of the corpus is not large enough to allow drawing reliable conclusions. Further comparative studies of different languages (e.g., Korean texts) or different fields may yield significant findings and give us a big picture of the research article abstracts. In order to produce effective texts, explicit genre-based approach to teaching writing can be applied for those who wish to be a member of academic discourse communities (Swales & Feak, 1994). Furthermore, disciplinary differences should be considered when teaching research article abstract writing to ESL/EFL students entering the academic discourse community (Stotesbury, 2003).

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Examples in: English
Applicable Languages: English
Applicable Levels: Tertiary

Eunsook Shim
Dept. of English Language and Literature
Sangji University
660 Usan-dong Wonju, Gangwon-do, 220-702, Korea
Tel: (033) 730-0221/ H.P.: 010-9992-0048
Email: shim0098@sangji.ac.kr

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