

Hedges and Boosters in Academic Writing

Eunsook Shim

Sangji University

Shim, Eunsook. (2017). Hedges and boosters in academic writing. *Modern English Language*, 18(3), 71-90.

This study analyzed hedges and boosters employed in the U.S.-based research article (RA) abstracts and the Korea-based English RA abstracts of TESOL/Applied Linguistics. The corpus consisted of 564 RA abstracts: 268 abstracts from international journals (*TESOL Quarterly & Applied Linguistics*) and 296 abstracts from domestic journals (*English Teaching & Korean Journal of Applied Linguistics*). Hyland's (2005) model was employed as the basis for the analysis. A concordance program, *AntConc*, was used in analyzing the data by identifying the occurrences of hedges and boosters in the RA abstracts. From the corpus-based genre study of RA abstracts, the findings showed that a higher occurrence of hedges was found in the U.S.-based English texts and more boosters were used in the Korea-based English texts. The cross-cultural analysis revealed that the present tense verb in reporting results of a study was used in the U.S.-based RA abstracts but the past tense verb was used predominantly in the Korea-based RA abstracts, suggesting that the L2 writers' choice of the rhetorical devices may be influenced by the specific contexts of publication. The disciplinary variations in the writing of academic texts should be considered.

[hedges/boosters/genre analysis/EAP/
유보어/강조어/장르분석/학문목적영어교육]

I. INTRODUCTION

A great number of research articles (RA) are published internationally and easily accessible online due to the global communication networks. Research publications will be more increasing (Flowerdew, 2013). Many researchers are facing “an information

explosion” (Swales & Feak, 2009, p.1) and confronting an increasing competition to attract international and/or domestic readers. Thus, it is important to promote the significance of the reported study and highlight the results of the research. Given this rapid development of research publication internationally, RA abstracts have received considerable attention by many researchers (e.g., Friginal & Mustafa, 2017; Gillaerts & Van de Velde, 2010; Graetz, 1985; Hu & Cao, 2011; Swales & Feak, 2009; Van Bonn & Swales, 2007).

Research articles (RA) often contain an abstract by summarizing the main findings of the accompanying paper. It is widely reported that RA abstracts are structured into four rhetorical components: introduction, method, results, and conclusion (Swales & Feak, 2009). The percentage of RA abstracts including particular moves may differ across the disciplines. Graetz (1985) characterized the language of RA abstracts:

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, superlatives, 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)

Generally, RA abstracts can function as “a description or factual summary of the much longer report” (Bhatia, 1993, p. 78), “a time-saving device” (Martín-Martín, 2003, p. 26), or “an evaluative device” (Hyland & Tse, 2005, p. 123). According to Huckin (2001), RA abstracts have four functions: (a) stand-alone mini-texts to give readers a short summary of a study; (b) screening devices to help readers decide whether they want to continue reading the article or not; (c) previews to give readers a road-map for reading; (d) indexing help for writers and editors. In fact, RA abstracts can be now characterized as a promotional device because there will be more and more research publications internationally and be an increasing competition to attract readers.

Since RA abstracts should be informative and concise, L2 writers should make a decision on what to include and how to attract readers when writing the abstract. Several studies (e.g., Allison, 1995; Alton-Lee, 1998; J. Bae & S. Min, 2016; Bruce, 2014; Y. Choi & M. Ko, 2005) argue that L2 novice writers may have greatly difficulty in establishing a writer's stance in the writing of academic texts. Alton-Lee (1998) reported that reviewers in her study commented on a range of problems occurred by L2 writers, especially in evaluating critically and establishing a writer's stance in the academic texts. Evidently, taking an appropriate stance is essential and indispensable in academic discourse. The

critical evaluation can be expressed “as personal judgements couched in attitudinal lexis” (Stotesbury, 2003, p. 328). In the writing of research papers, a writer can downplay or boost their statements by using rhetorical devices such as hedges and boosters in academic texts. L2 writers should be able to employ appropriate rhetorical strategies to convince expert members and the readers in their discipline when writing of academic texts.

Hedging and boosting can be used to express a writer’s degree of certainty and to show authorial stance in academic discourse. The markers are useful rhetorical devices to express the writer’s “lack of commitment to the truth of a proposition he/she utters” (Crompton, 1997, p. 281). Since the use of the rhetorical devices such as hedges or boosters is highly conventionalized in specific contexts, they should be employed cautiously based on the norms of a particular academic discourse community both in domestic and international research publications (Hinkel, 2005; Swales, 1990). The skillful use of hedges and boosters in academic texts can signal “a writer’s stance towards propositional content and intended readers” (Hu & Cao, 2011, p. 2796). Thus, the mastery of specific writing conventions and writing styles is important in L2 writing classrooms. The purpose of the paper is to investigate hedges and boosters occurred in the research article (RA) abstracts of *TESOL/Applied Linguistics*. This study compares the U.S.-based and the Korea-based English RA abstracts from a comparative perspective. The cross-cultural comparisons can be an effective starting point in understanding writing conventions and rhetorical strategies preferred in specific contexts.

II. LITERATURE REVIEW

1. Definition of Hedges and Boosters

There is little agreement on the terminology to defining a writer’s *stance* in academic texts. The construct has been referred to as *stance*, *criticality*, or *criticism*. For instance, Biber and Finegan (1989) used the term, *stance* to describe “lexical and grammatical expressions of attitude towards feelings, judgement or commitment concerning the propositional content of a message” (p. 93). *Criticality* is defined “as an evaluative judgement made within any field of human activity about some aspect, object or behavior of that field” (Bruce, 2014, p. 85). *Criticism* is referred as “the expression in text of the writer’s or speaker’s opinion or judgement” (Tucker, 2003, p. 291). Hedges and boosters are important rhetorical devices to mark an authorial stance and to position a writer’s stance in academic discourse. By using hedges and boosters in the writing of academic texts, academic writers can signal their own stance towards proposition.

According to Yang (2013), hedges are metadiscourse markers to “mitigate interpersonal communication since scholars anticipate a response on how controversial or acceptable their claims are in various scholarly communities” (p. 24). Hedging (e.g., *may*, *suggest*, *probably*) can function as politeness strategies to avoid any personal offense or to make claims “fuzzier or less fuzzy” (Lakoff, 1972, p. 195). Boosters are also important rhetorical devices (e.g., *show*, *certainly*, *demonstrate*) to mark a writer’s commitment toward a proposition. Hedges are often referred to as “down-toners” or “mitigators” and boosters are indicated as “intensifiers” or “emphasizers” (Silver, 2003, p. 365). Both hedges and boosters may reflect “cultural norms, values, and belief systems prevailing in discourse communities” (Golebiowski, 2002, p. 59). Thus, the rhetorical choices may be influenced by cultural contexts of publication. The appropriate use of hedging and boosting strategies can increase the credibility of the reported study and enhance the degree of acceptance of the findings in the discourse community.

2. Previous Studies of Hedges and Boosters

Several studies investigated the use of hedges and boosters by academic writers in various disciplinary communities. Milagros del Saz Rubio (2011) examined 28 research articles in the field of agricultural sciences and found hedges and boosters were the most pervasive interactional markers, compared with other interactional markers such as attitude markers or engagement markers. As shown in Table 1, Hyland and Tse (2004) reported that a higher occurrence of hedges was found in the field of applied linguistics (111.4) and public administration (109.7) but a lower occurrence use of hedges was found in the field of computer science (55.8) and electronic engineering (61.5). Boosters were more balanced across disciplines except the field of applied linguistics (37.9).

TABLE 1
Distribution by Discipline per 10,000 Words (Hyland & Tse, 2004, p. 172)

Items	Applied Linguistics	Public Admin	Business Studies	Computer Science	Electronic Engineering	Biology
Hedges	111.4	109.7	93.3	55.8	61.5	82.1
Boosters	37.9	29.5	29.8	29.4	28	30.5

Gillaerts and Van de Velde (2010) examined hedges, boosters, and attitude markers in the research article abstracts. They investigated three interactional markers from a diachronic approach to examine whether the practice of writing research article abstracts has changed over the past 30 years. They analyzed the corpus consisting of 72 RA abstracts taken from the Journal of Pragmatics between 1982 and 2007 and reported that the use of

the hedges, boosters, and attitude markers dropped in the past 30 years. Dealing with the diachronic changes, they explained this reduction by a rapidly increasing growth of empirical studies in hard sciences. Melander, Swales and Fredrickson (1997) investigated whether variations in the rhetorical features of RA abstracts are a result of disciplines or language choices and found that discipline prevailed in biology, whereas language choice was the major determinant in linguistics.

Several researchers compared the use of hedges and boosters from different language groups to identify cross-cultural linguistic differences from a comparative perspective (e.g., Crompton, 1997; Hu & Cao, 2011; Hyland, 1998; Martín-Martín & Burgess, 2004; Vassileva, 2001). For instance, Vassileva (2001) compared English research articles written by Anglo-American linguists and Bulgarian linguists and found considerable differences among language groups in the use of hedges and boosters to convey different degrees of commitment. Examining linguistic and cultural variations in the research articles, Mur-Dueñas (2011) reported that Spanish writers in the field of business management tend to use less hedges and more boosters when they make claims. Possibly, L2 writers' choice of hedges and boosters may be influenced by the specific academic contexts of publication.

Hinkel (2005) analyzed the frequencies of hedges and intensifiers employed in L1 and L2 students' academic essays (745 essays), focusing on the lexical and syntactic devices of written discourse. The six hedging devices were examined: epistemic hedges (*relatively, mostly*), possibility hedges (*perhaps, possibly*), lexical hedges (*kind of, maybe*), adverbs of frequency (*frequently, usually*), down-toners (*a bit, nearly, partly*), and assertive pronouns (*any- and some- words*). Then, three boosting devices were also analyzed: amplifiers (*awfully, highly*), universal pronouns (*nobody, everything*), and emphatics (*exact, total*). She found that L2 students employed a very limited range of hedges in the essays, suggesting the appropriate use of hedging devices in particular contexts "crucially depends on the norms of a particular discourse community" and "highly conventionalized in academic writing" (Hinkel, 2005, p. 31).

In a similar vein, Hu and Cao (2011) compared Chinese-authored English RA abstracts from Chinese-medium journals and the English texts from English-medium journals of applied linguistics, focusing on the frequency of hedges and boosters used in a total of 649 RA abstracts published in 8 journals of applied linguistics. They revealed that Chinese L2 writers tended to express a notably higher degree of the authorial certainty and confidence by employing the less frequent use of hedges and a somewhat greater use of boosters, suggesting the notable cross-cultural/linguistic differences in the use of hedges and boosters in academic writing. This culturally-based difference can be explained by the culturally preferred rhetorical strategies and styles of communication in academic discourse. However, Yang (2013) conducted an interdisciplinary study by analyzing hedges in the Chinese RAs and corresponding Chinese-authored English RAs of the same

journals in the areas of agriculture, biology, cell and molecular biology, and medicine. The study showed that hedges were employed more in Chinese-authored English texts. The Chinese authors tended to adopt a more tentative stance when publishing English RAs in English-medium academic journals than those in Chinese RAs in Chinese-medium academic journals. It should be noted that the cross-discipline differences of academic journals may be influenced on the use of rhetorical strategies in Yang's study.

Van Bonn and Swales (2007) compared French and English RA abstracts from the language sciences to examine how language choice may affect the genres. Significant differences in the rhetorical and linguistic features of French and English abstracts were reported that there was "the deductive, data- and fact-based nature of French prose and the inductive, argument-based nature of English prose" (p. 99). This cultural variation may be attributable to the differences in discourse community size (Van Bonn & Swales, 2007). In terms of the discourse community size, those who wish to publish their RAs in international journals are not only US-based authors but also non US-based L2 writers from other countries. However, those who wish to publish their RAs in their own domestic journals would expect their audience to be domestic readers. Evidently, this different discourse community size can influence on culturally-based writing conventions and styles.

Martín-Martín and Burgess (2004) compared Spanish RA abstracts and English RA abstracts. It was found that English RA abstracts contained more academic criticism than Spanish RA abstracts. More recently, Friginal and Mustafa (2017) explored the linguistic characteristics of English RA abstracts in four disciplines (Agriculture, Nursing, Engineering, and Languages) published in the United States and in Iraq. The corpus-based comparative study focused on the cultural and cross-disciplinary differences in U.S.-based and Iraqi-based RA abstracts, and on the use of discourse markers to explore directness and argumentation when the U.S.-based and Iraqi academic writers position themselves in their own fields. They highlighted the cross-cultural comparisons should be an effective starting point in teaching conventionalized discourse patterns and rhetorical strategies in specific contexts.

A few studies were conducted to examine Korean-authored English texts (e.g., J. Back, 2011; J. Bae & S. Min, 2016; Y. Choi & M. Ko, 2005; J. Kim, 2008; E. Shim, 2015; C. J. Uhm, J. A. Kim, H. Nam, & Y. Oh, 2009). For instance, C. J. Uhm et al. (2009) analyzed a corpus of 50 English RAs written by L1 writers and 50 English RAs discussion sections of applied linguistics written by L2 Korean writers. They found that L1 expert writers used hedges and boosters frequently, compared with L2 Korean novice writers. Y. Choi and M. Ko (2005) analyzed Korean graduate students' RAs in the field of Applied Linguistics/ TESOL and then compared with RAs published in the international journals of the same discipline. They revealed a similar frequency distribution of hedges between the Korean

students and the L1 expert writers, but Korean students tended to make stronger commitments using modal verbs, compared with those of the L1 writers. J. Bae and S. Min (2016) examined the use of hedges in Korean L2 students' five essays (i.e., narrative, comparison, cause-effect, argumentative, reaction) and found that the students often used modal verbs, *would* or adverbs, *just/really* as epistemic devices in narratives than expository genres, suggesting that they seemed to be affected by genres and used different hedges between narrative essays and expository essays. It can be speculated that sub-genre variations in different essays or different sections of research articles can influence the Korean L2 students' choice of the linguistic features.

The purpose of the study is to analyze hedges and boosters employed in the U.S.-based English research article (RA) abstracts and the Korea-based English research article (RA) abstracts in the field of TESOL/Applied Linguistics. This corpus-based comparative study focusing on the cross-cultural differences in RA abstracts can be an effective starting point to understand similarities and differences in academic writing and to describe rhetorical strategies commonly used in a specific discourse community. Findings of the comparative study can be useful to provide pedagogical implications for L2 writing instruction in tertiary educational settings. Research questions are as follows:

- 1) What are the frequently used hedges and boosters in the U.S.-based RA abstracts and in the Korea-based RA abstracts?
- 2) Are there any cross-cultural variations between the U.S.-based RA abstracts and the Korea-based RA abstracts?
- 3) Are there any variations among the journals?

III. METHOD

1. Corpus

The corpus for this study consisted of 564 research article abstracts (RAAs) from two international journals published in the U.S. and two domestic journals published in Korea in the field of TESOL/Applied Linguistics. A total of 268 abstracts were collected from international journals (*TESOL Quarterly & Applied Linguistics*) and 296 abstracts from domestic journals (*English Teaching & Korean Journal of Applied Linguistics*). The selected journals are representative in the field. For this study, the research article abstracts were retrieved from each journal web-site, published from 2012 to 2016. Only RA abstracts in English were collected and other genres such as book reviews, forums or short reports were excluded. The corpus contained 97,264 words in total, with an average of 173

words per abstract. Table 2 shows details of the corpus used in this study.

TABLE 2

Description of the Corpus

	U.S.-based RAAs		Korea-based RAAs	
	TQ	AL	ET	KAL
No. of RAAs	126	142	165	131
Average Length of RAAs	178	169	169	175
Total No. of Words	22,418	23,983	27,910	22,953

Note. TQ: *TESOL Quarterly*; AL: *Applied Linguistics*; ET: *English Teaching*; KAL: *Korean Journal of Applied Linguistics*

2. Data Analysis

Hyland's (2005) model was used for the analysis in this study. Hedges and boosters were classified on the basis of the model. As shown in Table 3, hedges (*suggest, often*) are pragmatic features to express the writers' tentativeness and indirectness in the writing of academic texts. Boosters (*show, indeed*) are rhetorical devices to highlight the writers' confidence and certainty in proposition.

TABLE 3

Description of Hedges & Boosters (Hyland, 2005)

Items	Function	Examples
Hedges	To withhold writers' full commitment to proposition	<i>suggest, argue, often, largely, may, seem, perhaps, possible, tend to</i>
Boosters	To emphasize force or writers' certainty in proposition	<i>show, find, in fact, clear, know definitely; think, certain, indeed</i>

Some examples are as follows:

Hedging

The nonnative speakers **often** failed to perform well-organized presentations and delivered in written text style. (ET#114)

Boosting

The results **showed** that the relationship between task achievement and L1 use is correlated **strongly**, irrespective of task types ($F = .003, r = .635, p < .01$). (KAL#99)

A concordance program (*AntConc 3.2.4w*) was used in analyzing the data by identifying the occurrences of hedges and boosters in the RA abstracts. All 564 texts were analyzed and each item was classified through the concordance program. The textual analysis was conducted by the researcher and a co-coder individually on the basis of Hyland's model. Any inconsistencies in classifying the items were settled through discussions.

IV. RESULTS AND DISCUSSION

1. Frequency of Hedges and Boosters

Hedges and boosters are indispensable rhetorical devices to express “uncertainty, skepticism and deference in academic contexts” (Hyland, 1998, p. 349). By using hedges and boosters, a writer can take a stance in proposition and highlight the significance of the research findings. This study examined hedges and boosters in research article abstracts of TESOL/Applied Linguistics journals. As shown in previous studies, hedges are the most frequently used pragmatic feature in the academic texts (e.g., J. Bae & S. Min, 2016, Y. Choi & M. Ko, 2005; Hu & Cao, 2011; Hyland, 1994, 1996; Stotesbury, 2003). Table 4 shows that the frequency of hedges and boosters occurred in the U.S.-based RA abstracts and the Korea-based RA abstracts. The textual analysis showed that the U.S.-based RA abstracts included a slightly higher use of hedges (64%) and less use of boosters (36%), compared with the Korea-based RA abstracts (59% and 41% respectively).

TABLE 4
Frequency of Hedges and Boosters

Items	U.S.-based RAAs		Korea-based RAAs	
	Raw Number	Per 10,000 Words	Raw Number	Per 10,000 Words
Hedges	508	109(64%)	517	101(59%)
Boosters	280	60(36%)	362	71(41%)
Total	788	169	879	172

In this study, Korean writers who publish RA abstracts in domestic journals tended to use more boosters in order to make a stance in an assertive tone, whereas writers who publish in the international English-medium journals tended to express a tentative stance in the writing of RA abstract. Although significant cross-cultural differences are not observed, somewhat variations can be seen in the use of hedges and boosters (see Figure 1).

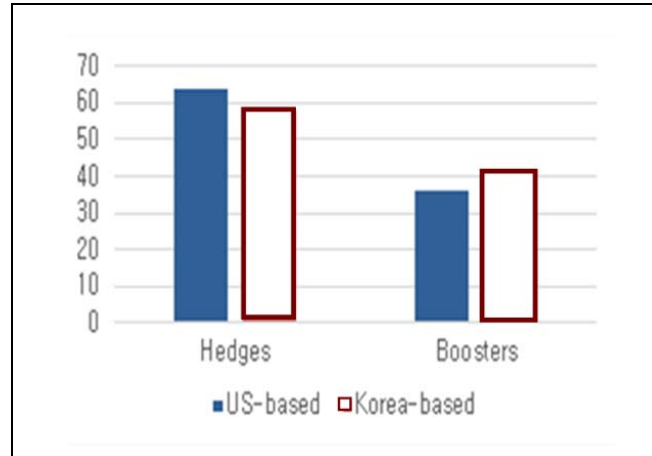


FIGURE 1 Frequency of Hedges and Boosters

As shown in Table 5, a slight difference was found among the journals (67% in TQ; 63% in AL; 60% in ET; 58% in KAL respectively) but no critical differences were found across the journals. This suggests that there are commonly perceived disciplinary values and preferred styles among discourse members in the field. However, we can compare this with the results of Hyland and Tse's (2004) study, showing that more hedges were occurred in Applied Linguistics (111.4 per 10,000 words) than in Computer Science (55.8 per 10,000 words).

TABLE 5
Frequency of Hedges and Boosters

Items	U.S.-based RAAs			Korea-based RAAs		
	TQ	AL	Total	ET	KAL	Total
Hedges	232(67%)	276(63%)	508(64%)	275(60%)	242(58%)	517(59%)
Boosters	115(33%)	165(37%)	280(36%)	184(40%)	178(42%)	362(41%)
Total	347	441	788	459	420	879

Regarding variations across disciplines, some studies (e.g., Hyland & Tse, 2004; Samraj, 2005) reported that similar genres (RA abstracts & RA introductions) may have a greater similarity in the rhetorical structure and functions of pragmatic features. For instance, Samraj (2005) argued that RA introductions and RA abstracts in Conservation Biology have a greater similarity. Variations across disciplines and genres should be studied to identify the commonly perceived disciplinary values. The results for each category are described.

2. Cross-Cultural Variations in Hedges

Academic writers may use hedges to withhold their full commitment and mitigate the degree of certainty in the writing of the academic texts. Hedges can be used to express indirectness, to make a space for alternative interpretations, and to avoid any responsibility for the certainty of a writer's claims (Hyland, 2005). As shown in Table 6, the most frequently used hedges in this study were 'suggest' and 'indicate' across the journals. These verbs were heavily used in the journal of *English Teaching* published in Korea. Other commonly used hedges were modal verbs such as 'may' or 'should' and adverbs such as 'often' and 'frequently'.

TABLE 6
The Rank of Hedges Used in RAAs

Rank	Hedges	TQ	AL	ET	KAL	Total
1	suggest*(-s/-ed)	37	33	58	41	169
2	indicate*(-s/-ed)	30	15	43	42	130
3	may	16	33	11	23	83
4	argue*(-s/-ed)	22	22	5	4	53
5	should	13	11	13	12	49
6	often	11	19	9	6	45
7	frequently	3	3	16	14	36
8	rather x	13	9	6	6	34
9	possible(-ly)	5	14	5	7	31
10	tend*to	6	8	9	8	31

Analyzing the data through the concordance program, it was observed that the most commonly used hedges (i.e., *suggest* & *indicate*) were mainly used to report the results/findings of the study as shown in the following examples of (1) and (2).

- (1) These findings suggest that a basic skill like word decoding still deserves instructional attention even at the secondary schools in EFL contexts. (ET#60)
- (2) The findings indicate that the university students perceived the local accent more negatively than their secondary counterparts in the dimensions of both status and solidarity, despite their greater awareness of accents. (TQ#12)

The use of hedges indicates that the writers clearly recognize alternative viewpoints to

mitigate authors' claims and to avoid an assertive tone of voice in the writing of academic texts. As shown in the examples of (3) and (4), the statements were hedged by including adverbs (*often, almost*) to modulate the statements. If the writers used no hedges, they could be questioned on the validity of the proposition.

- (3) Nonnative speakers **often failed to** perform well-organized presentations and delivered in written text style. (ET#114)

*Non-hedged sentence

Nonnative speakers **failed to** perform well-organized presentations...

- (4) This review also shows that **almost all** PI research so far has..... (AL#51)

*Non-hedges sentence

This review also shows that **all** PI research so far has been very...

As shown in the following example of (5), the writer used a strong verb, *show*, to report results/findings of the research but used an adverb, *often*, to hedge the statement. That is, the writer tends to indicate that some ELF speakers may not employ utterance completion when the speakers makes hesitations.

- (5) Data findings show that ELF speakers often employed utterance completion when the interlocutor made hesitations or pauses. (KAL#14)

Interestingly, the clear cross-cultural variations in the use of hedges were the verb, *argue* and an adverb, *frequently*. The verb, *argue*, was notably used in the U.S.-based RA abstracts (a token of 44 out of 53). However, only a few instances were found in Korean-authored English texts (a token of 9 out of 53). Another cross-cultural difference was the adverb, *frequently*. It was used less in U.S.-based RA abstracts (a token of 6 out of 36) but more heavily in Korean-authored texts (a token of 30 out of 36).

In addition, the extensive use of past tense verbs occurred in Korean-authored English texts. A total of 51 out of 56 tokens occurred in the Korean-authored English texts (91%), whereas only 5 tokens occurred in the U.S.-based English texts (9%). As shown in (6) and (7), the present verb tense, *indicate/suggest*, was used in the RA abstract published in AL but the past verb tense, *were suggested*, was used in the abstract published in ET.

- (6) Results indicate a significant effect of frequency level on the rate of vocabulary breadth knowledge growth and vocabulary fluency development... Findings also suggest that vocabulary fluency

development lags behind vocabulary breadth knowledge growth.
(AL#81)

- (7) Pedagogic implications were suggested for the specific needs of science and engineering graduate students. (ET#114)

Evidently, the present tense verbs in reporting the results/findings were preferred in the U.S.-based journals such as *TESOL Quarterly* and *Applied Linguistics*, whereas the past tense was favored in Korea-based journals as shown in Figure 2.

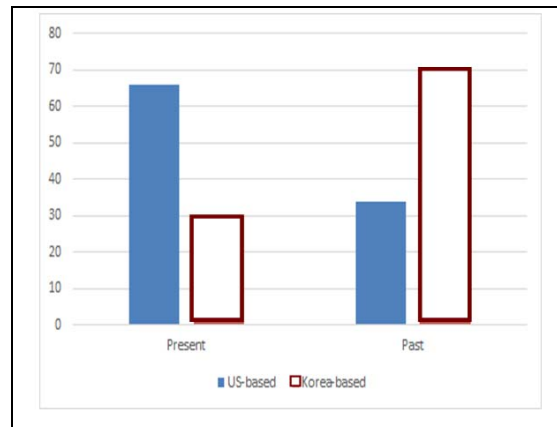


FIGURE 2 The Use of Verb Tense

3. Cross-Cultural Variations in Boosters

Boosters are an important aspect of pragmatic features in academic texts to express a writer's certainty in the propositional information. The results showed that boosters were frequently occurred in Korea-based English RA abstracts. Although the difference was not significant, boosters were favored by the Korean writers in the domestic journals. Table 7 shows the rank of the boosters occurred in this study. Evidently, the verbs such as *show* and *find* are most frequent in both language-groups. Predominantly, two verbs (*show*, *find*) were used in reporting the findings of the study. Most writers in this study seemed to prefer the verb, *show*, to highlight their results and to express a researcher's confidence.

TABLE 7
The Rank of Boosters in U.S.-based and Korea-based RAAs

Rank	Boosters	U.S.-based		Korea-based		Total
		TQ	AL	ET	KAL	
1	show*(-s/-ed/-shown)	38	59	82	98	277
2	find*(-s/found)	26	28	51	35	140
3	demonstrate*(-s/-ed)	8	11	13	13	45
4	know*(-s/-known)	7	7	8	4	26
5	Certain	5	8	3	9	25
6	establish(-ed)	7	9	5	3	24
7	clear/clearly	3	4	4	4	15
8	must(possibility)	6	5	0	1	12
9	think*(-s/-thought)	4	6	2	0	12
10	believe*(-s/-ed)	4	2	3	1	10

In terms of variations across the journals, it can be observed that the two verbs (*show*, *find*) occurred more in the Korea-based journals (i.e., ET/KAL). Except the two verbs, other verbs were not frequently used, indicating commonly preferred writing styles among discourse members in this field.

The use of boosters in academic texts may indicate that the writers intend to maximize “authorial visibility” (Hu & Cao, 2011, p. 2806). The high frequency of boosters in L2 writers’ English texts may be an effective means of persuasion in some rhetorical traditions (Van Bonn & Swales, 2007). As Swales (1990) stated, it is important for expert academic writers to emphasize the significance of the study and prove the authorial certainty by using appropriate boosters, which are commonly agreed by their discourse community members. As shown in examples of (8) and (9), the writers used no hedges such as *seem* or *tend to*, suggesting that the statistical test-results are greatly convincing and can strengthen the credibility of the study.

- (8) The research results via t-tests show that only those who received DDL treatment have enhanced learning attitudes in general. (TQ#4)
- (9) Only 7th grade students did not show a significant improvement in intercultural sensitivity, ... (ET#68)

In terms of cross-cultural variations in the use of boosters, one of the interesting findings is the verb tense (see Table 8). Generally, the present tense verb was used to report results and/or presenting the present study more in the U.S.-based RA abstracts as shown in (10), whereas the past tense verb was favored in the Korea-based RA abstracts as shown in (11).

(10) The present study shows that this subjective approach is problematic and instead adopts a corpus-based register ... (TQ#104)

(11) The results showed that the relationship between task achievement and L1 use is correlated strongly, irrespective of task types... (KAL#99)

TABLE 8
The Use of Verb Tense

Tense	U.S.-based RAAs			Korea-based RAAs		
	TQ	AL	Total	ET	KAL	Total
show(-s)	27(71%)	37(63%)	64(66%)	24(29%)	31(32%)	55(30%)
showed	11(29%)	22(37%)	33(34%)	58(71%)	67(68%)	125(70%)
Total	38	59	97	82	98	180

The tendency to choose the present tense verb in international journals may be due to the size of discourse community. It may detail the promotional features of RA abstracts, as Hyland (2005) stated. Graetz (1985) claimed that an abstract can be characterized by the use of the past tense but the present tense tends to occur frequently in the abstracts of international journals. Considerable popularity of the present tense may indicate that the reported study is “alive” and it reflects “wider knowledge-claims” (Swales, 1990, p. 181). Possibly, the writers who wish to publish research articles in international journals want to convince the worldwide discourse community members that the reported study is worthy of investigating at the present time and “makes the research seem relevant and fresh and new” (Swales & Feak, 2004, p. 264).

Regarding variations across disciplines, Hyland and Tse (2004) reported that the field of Electronic Engineering contained more boosters compared with other disciplines. In a similar vein, Milagros del Saz Rubio (2011) reported that more boosters in the field of agricultural sciences were found. As Hyland (1998) argued, the expression of certainty and tentativeness is central to the rhetorical devices of academic writing. He conducted an interview with academic writers from eight disciplines to examine the role of a writer's stance in rhetorical choices, and reported the variations in the distribution and functions of hedges and boosters across the disciplines. Samraj (2005) explored disciplinary variations in academic writing by comparing RA abstracts and introductions from two fields, Conservation Biology and Wildlife Behavior. She reported that RA introductions and RA abstracts in Conservation Biology have a greater similarity in organization and function, compared with in the field of Wildlife Behavior. This study highlights disciplinary variation in academic writing in terms of the rhetorical structure and also in the relationship among related genres. More research on disciplinary variations should be

studied. The cultural and disciplinary variations in academic texts can assist L2 novice writers on how to express authorial stances appropriately (Yakhontova, 2002, 2006).

V. CONCLUSION

The present study analyzed hedges and boosters employed in the U.S.-based English RA abstracts and in the Korea-based English RA abstracts of *TESOL/Applied Linguistics*. The cross-cultural comparison analysis of the rhetorical strategies showed that the Korea-based English RA abstracts contained a slightly lower instances of hedges but a higher instances of boosters to make a stance in an assertive tone, compared with the counterparts. The use of boosters indicate that Korean authors in the study tend to maximize a writer's authority and express a writer's certainty in academic discourse. The U.S.-based RA abstracts showed a slightly higher use of hedges and less use of boosters, indicating that the writers tend to express their deference and tentative stance in proposition. Another cross-cultural variation was in the use of verb-tense. The popularity of the present tense verbs in the U.S.-based RA abstracts may indicate that the reported study seems "alive" (Swales, 1990, p. 181) and "fresh and new" (Swales & Feak, 2004, p. 264). L2 writers' use of rhetorical features in the writing of academic texts can be influenced by the specific linguistic and cultural context of publication (Allison, 1995; Mur-Dueñas, 2011). In terms of variations across the journals (i.e., TQ, AL, ET, and KAL), no critical differences were found among the journals. This may suggest there are commonly perceived disciplinary values and preferred styles among discourse members in this field.

Evidently, it is important to employ hedges and boosters appropriately according to the commonly perceived rhetorical features of the specific academic discourse community. This may require sophisticated writing skills. Therefore, L2 novice writers need to be familiar with how to maximize their own claims or mitigate their own certainties appropriately when they write academic texts. A genre-based instruction would be suitable to teach academic writing to L2 novice writers as compared to the traditional L2 writing instruction. This genre-based teaching can focus on genre awareness of specific rhetorical strategies and genre acquisition of exploiting the strategies according to their own discipline. A common teaching pedagogy in genre-based approach is to analyze prototypical academic texts written by expert members in the discipline, which can assist L2 writers to acquire genre-specific language features. The meaningful comparison by analyzing two different RA abstracts from different areas can assist L2 writers to analyze any similarity or difference in academic texts. In addition, a concordance program (e.g., *AntConc*) for a corpus-based text analysis can be incorporated into the classroom,

making the learning of specific academic writing strategies more objective and interactive.

Since the rhetorical strategies are highly conventionalized in particular contexts, L2 writers should employ them based on the norms of an academic discourse community (Swales, 1990). It should be noted that this study focused on a single disciplinary and a small number of journals from each group. Further studies should be directed to identify cross-linguistic differences and disciplinary variations in other fields such as hard sciences since disciplinary variations can demystify the use of hedges and boosters in the writing of academic texts across disciplines.

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Examples in: English

Applicable Languages: English

Applicable Levels: Tertiary

Eunsook Shim

Department of English, Sangji University

83 Sangjidaegil, Wonju, Gangwondo 26339

Tel: 033-730-0221

Email: eunsook.shim@gmail.com

Received 16 June 2017

Revised 5 August 2017

Accepted 14 August 2017