

A Comparative Analysis of Lexical Bundles in Native and Non-Native Argumentative Writing Using Hedge

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I. Introduction

As of 2022, the total number of international students in South Korea stands at 166,892, with 124,803 enrolled in degree programs, comprising 74.8% of the international student population.¹ There is a noticeable increase in academic purpose learners. Consequently, the field of Korean language education is witnessing extensive research aimed at academic purpose learners. Among them, a significant emphasis is placed on writing studies, as academic purpose learners often encounter and produce academic texts.

Academic purpose learners are frequently required to engage in formal writing, particularly in the context of their specific academic pursuits. They need to effectively articulate their viewpoints in a logical and efficient manner. Due to this, the national-level “Standardized

1 The specific statistical results are presented in the following table:

Total	Academic degree				Non academic degree		
	Sub-total	Bachelor's	Master's	Doctorates	Sub-total	Language Course	the others
166,892	124,803	80,988	26,923	16,892	42,089	27,194	14,895

(Source: Educational Statistics Service, <https://kess.kedi.re.kr>)

Korean Language Education Curriculum”² assigns significant importance on writing standards. Starting from the 4th level, the curriculum focuses on enabling students to write simple structured argumentative essays while performing the communicative function of expressing their viewpoints logically and effectively.

Argumentative writing should encompass not only a coherent structure allowing readers to align with the presented argument but also adherence to the requisite writing conventions within the academic discourse community.³ Specifically, the Korean discourse community employs a range of linguistic strategies that aid in reader comprehension and acceptance of an argument.

정보화 시대에 들어선 현재, 우리는 정보의 호수 시대에 살고 있다. 핸드폰을 갖

2 This curriculum was developed by the Ministry of Culture, Sports and Tourism and the National Institute of the Korean Language, announced on November 27, 2020. It represents the top-level curriculum designed to encompass various educational settings and cater to a diverse range of learners. The outlined objectives for the <Writing> domain at each proficiency level are as follows:

Level	<Writing> Objectives
1	Capable of writing texts on everyday topics and performing basic communicative functions, such as composing simple messages or engaging in basic exchanges.
2	Able to write texts necessary for public situations encountered in the surrounding environment, and can perform communicative functions such as providing basic information or describing explicit facts.
3	Competent in writing texts related to one's own life and performing communicative functions such as conveying information or providing explanations.
4	Proficient in writing texts on socially or abstractly interesting topics, and able to perform communicative functions such as describing subjects or expressing personal thoughts.
5	Skilled in writing texts on social or partially specialized topics, and proficient in communicative functions such as systematically conveying information or expressing personal opinions.
6	Capable of writing texts on specialized or academic topics, and proficient in communicative functions such as presenting logical and effective opinions.

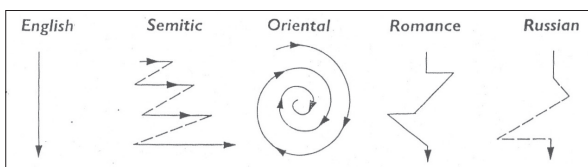
고 걸어가면, 우리가 얼마나 걸었는지, 또 어디를 다녀왔는지 등 모든 정보가 다 기록된다. 빅데이터는 이러한 방대한 양의 정보들을 처리, 분석하면서 더 가치 있는 정보들을 생성해낼 수 있을 것이다. 이러한 측면에서, 빅데이터의 미래는 더 밝을 것이라고 생각한다.

We live in an information age comprising multitude of information. When you walk with your phone in hand, information about how long you walked and where you have been is recorded. Big data can generate more valuable information by processing and analyzing this vast amount of information. In this regard, I think the future of big data will be brighter. (#NK_26)⁴

For example, as shown in the example above, the writer refrains from making explicit assertions or stating opinions like ‘the future of big data is brighter.’ Instead, hedges such as ‘-(으)ㄹ 것이다 (will be)’ and ‘-(이)라고 생각하다 (I think)’ are employed to mitigate the strength of the statement. In this context, hedges serve as linguistic devices intentionally used to communicate unproven claims cautiously. They play a crucial role in argumentative texts that require the accurate presentation of unproven content.

Foreign Korean language learners find it particularly difficult to use this hedge expression properly when writing claims. Shin (2011) and Sim (2013) pointed out that foreign Korean learners are less likely

- 3 There are distinct sociocultural traditions in each country and the figure below from Kaplan (1966) shows writing traditions according to each language.



- 4 The original text is presented as it is and KK means Korean native speaker, CK means Chinese-speaking Korean language learner, VK means Vietnamese-speaking Korean language learner, JK means Japanese-speaking Korean language learner, and EK means English-speaking Korean language learner. When indicating the source of the original text, the abbreviation and unique number are presented together.

to use hedges than native Korean speakers or are unable to use various hedges at all.

내 생각으로는 조기 교육은 필요가 없는 것이다. 왜냐하면 어릴 때는 아이들은 즐겁게 보내야 할 뿐만 아니라 도덕과 예의를 교치해야 하기 때문이다. 이때 잘 놀지 않다면 기쁜 기억을 남지 못해서 행복한 느낌이 부족한다. 그리고 사람이 라면 도덕과 예의는 지식과 능력보다도 중요하는 건데 어릴 때부터 먼저 이들을 잘 배워야 한다.

In my opinion, early education is not necessary. Children must not only have fun but also have morals and courtesy. If you do not play well at this point, you will not be able to have a happy memory and will lack a happy feeling. As a person, morality and courtesy are more important than knowledge and ability. You must learn them well from an early age. (#CK_8613)

In the example paragraph above, rather than asserting that early learning is not necessary, a foreign learner uses hedges such as ‘내 생각으로는 (in my opinion)’ and ‘-는/은 것이다 (is).’⁵ Nevertheless, readers may feel that the excessive usage of hedges results in the statement sounding increasingly assertive and not serve the original purpose of assuaging the assertion, which may trigger a negative response from the reader and fail to persuade them effectively. As such, even though foreign Korean learners know hedges, they often lack the knowledge of the form associated with it and cannot use the function of hedge expression properly.

This study is part of a broader research effort aimed at identifying issues related to the appropriate usage of hedges and seeks to address these problems through a comparative analysis of actual argumentative texts from two groups. Consequently, we constructed

5 Unlike the English translation, when used in the Korean sentence ‘-는/은 것이다’ is a hedge expression that indicates the speaker's confidence, decision, or determination. (Source: National Institute of Korean Language's Korean-English Learners' Dictionary, <https://krdict.korean.go.kr/eng>)

corpora of actual argumentative texts for these two groups to identify high-frequency hedges unique to each group. The study specifically zooms in on the hedge expression ‘-(으)ㄴ 수 있(없)다’ (can/cannot be, could be/could not be, be able to/be not able to), which was notably high in frequency. We aim to analyze the usage patterns of this expression from the perspective of lexical bundles. The specific research questions that will be addressed are:

1. What is the pattern of high-frequency hedges in the argumentative texts of the two groups?
2. What is the pattern of usage for the hedge expression ‘-(으)ㄴ 수 있(없)다’ from the perspective of lexical bundles, including its frequency of occurrence and combined forms?

In order to achieve this, Chapter 2 examines the characteristics of hedges used in argumentative text based on previous research and Chapter 3 compares the patterns of hedges between the two groups. In Chapter 4, differences in the lexical bundles of the high-frequency ‘-(으)ㄴ 수 있(없)다’ hedge expression will be analyzed.

II. Background

1. Hedges in academic writing: definition and functions

The concept of a hedge was initially introduced by Lakoff (1973) as ‘words whose job is to make things more or less fuzzy.’ Subsequently, research on hedges has continued with the work of Lakoff (1973), Fraser (1975, 1980), Prince et al. (1982), Hübler (1983), Brown and Levinson (1987), Markkannen and Schröder (1997), among others.

Fraser (1975, 1980) defines hedge as a strategy used to limit the speaker’s commentary on the truth or falsity of a proposition or to

mitigate potential hostility or irritation caused by the speech act. Meanwhile, Prince et al. (1982) interprets it as a strategy to mitigate or obscure commentary, Hüber (1983) sees it as a means to increase the listener's acceptability, thereby enhancing opportunities for agreement. Brown and Levinson (1987) views it as a strategy to minimize face threat, and Markkannen and Schröder (1997) considers it a way to soften the author's attitude and conceal it. In summary, the discussion above reveals that a hedge is a linguistic device employed to consider the interlocutor's face and diminish the author's assertions' firmness.

On another note, since the 1970s, research in the field of English education abroad has predominantly focused on examining the usage patterns of hedge markers in academic texts by English learners. Hyland and Milton (1997) have also emphasized the significant problem of second language learners not using appropriate hedge markers. Hinkel (2005, p. 40) has pointed out that English learners from China, Japan, Korea, and Indonesia predominantly use hedge markers such as 'according to, actually, most, normal(-ly),' and struggle with the usage of other hedge markers.

In the academic context, according to Hyland (1996), a hedge is defined as a linguistic device used when the author wants to convey a proposition they believe to be true without considering it absolute. Despite the need for objective argumentation in the text, hedges can be actively employed. They serve as a guide, leading readers to the author's thesis by deferring judgment, rather than reinforcing the statements made by the author. Hyland (1995) outlined three functions of hedges in academic writing.

First, although hedges carefully moderate rather than assert an opinion, they serve as a means to establish credibility by presenting one's statements as objectively and accurately as possible. In essence, since the relationship between claims and evidence is not inherent in constructing an argument, hedges facilitate objectivity by intentionally introducing vagueness instead of using assertive language, thereby

reducing the level of objectivity.

Second, hedges help alleviate responsibility. The writer's arguments remain open to potential refutation, and any successful refutation poses a threat to the author's credibility. Rather than making assertive statements that reinforce the writer's responsibility, hedges can mitigate this responsibility by toning down the forcefulness of the statement.

Third, hedges contribute to building a relationship between the author and the reader. The writer can employ a hedge expression to express respect to the reader as a colleague within the academic discourse community. This reserved sentiment allows readers to perceive that they have the authority to make their judgments, fostering strong bonds as colleagues. The author can use hedges to acknowledge that the arguments are not absolute, making readers feel less hesitant and treating them with respect by allowing room for refutation. Therefore, the use of hedges serves as a reasonable interpersonal strategy, defending not only the writers themselves but also the readers.

These functions make hedge an essential tool for authors to express their opinions flexibly and regulate interaction with the readers. The above is summarized as follows:

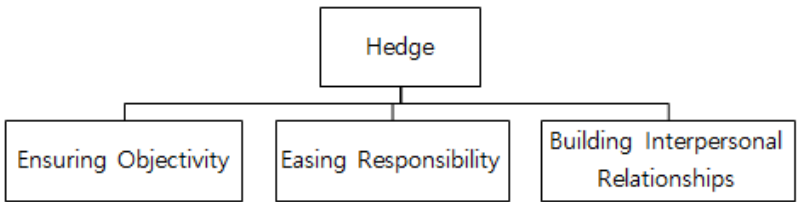


Figure 1. Functions of hedges

2. Korean hedges in academic writing: types and functions

In Korea, the exploration of hedges in academic Korean texts began with Shin (2006). Shin (2006) defined a hedge as expres-

sions indicating ‘ambiguity, politeness, and the speaker’s subjective attitude.’ According to Shin (2011), a hedge is a way of expressing one’s opinions circumspectly to anticipate possible counterarguments without making definitive statements. In the field of Korean language education, researchers such as Lee (2012), Kang and Lee (2019), and Im (2021) have contributed to the study of hedge. These studies commonly highlight the function of hedges in securing objectivity in propositions and easing responsibility by allowing room for counterarguments. Additionally, the use of hedges is seen as a considerate gesture toward readers, fostering a harmonious relationship between the author and the audience.

Building upon the functions of hedge, various researchers in Korea, including Shin (2006), Shin (2011), Park (2016), and Lee (2016), have categorized types of Korean hedges. Table 1 outlines the types of Korean hedges:

Table 1. Type of Korean hedges in previous studies

Scholar	Criteria	Types
Shin (2006)	- Withholding judgment on proposition content - Withholding author's judgment on proposition content - Attenuation of performance	-겠-, 아마도, 듯하다, 거의, 주로, 일종의, 나는...생각하다, -을 것이다, 무리가 있다, 우려가 있다, etc.
Shin (2011)	- Additional mitigation marker - Content-centric mitigation marker	거의, 아마도, -고 말하다(주장하다, 생각하다, 판단하다, 평가하다, 해석하다...), 은/는 편이다, -은/는/을 것 같다, -을 수 있다, etc.
Park (2016)	- Dimension of proposition content - Dimension of author's attitude toward proposition - Dimension of relationship with the reader	거의, -겠-, 아마도, 보다(볼 수 있다, 보이다), 알다(알 수 있다, 알게 되다), -고 알려져 있다, 무리가 있다, 우려가 있다, etc.
Lee (2016)	- Evaluative attitude - Perceptual attitude - Interactive attitude	새롭다, 설명하다, 말하다, 보이다, -을 수 있을 것이다, -을/를 알 수 있다, -다/라고 할 수 있다, -고자 하다, -다는 점에서, etc.

Based on the previous studies, this study aims to present the

types of Korean hedges as follows:

First, Korean hedges that secure the objectivity of propositions can be classified into two groups: ‘avoiding accuracy’ and ‘preventing generalization.’ In Prince et al. (1982), ‘approximation’ is further divided into ‘round’ and ‘adaptor,’ where the abbreviation is related to the ambiguity of numerical categories such as ‘about, approximately.’

This serves to obscure the boundaries of specific categories, such as ‘on of the-, sort of (Shin, 2012).’ In this context, ‘avoiding accuracy’ aligns with the concept of ‘round,’ and ‘preventing generalization’ aligns with ‘adaptor.’ In Korean, ‘avoiding accuracy’ falls into the category of vocabulary such as ‘거의(almost), 주로(usually), 크게(much), 비교적(relatively), 그리(so), 다소(a little), 약(about),’ and rather than quantifying it as a value but as a relative concept, the interpretation is up to the readers’ discretion, by which the reader can utilize the purpose of a hedge. ‘Preventing generalization’ includes ‘일종의(a kind of), -중의 하나(one of),’ etc., which emphasizes that the proposition is part of the whole and prevents it from being generalized into one. As it is only limited to a particular piece, not the whole, the judgment itself can only be limited in scope, and in order to make an accurate judgment, the reader must withhold from doing so until reviewing the entire content (shin, 2006).

Second, Korean hedges that reduce the writers’ responsibility can be categorized into ‘passive attitude,’ ‘subjective attitude,’ and ‘connotative expression.’ ‘Passive attitude’ is to withhold readers’ judgments by suggesting only probabilities and guesses instead of actively providing judgments and includes expressions such as the bound noun ‘-수,’⁶ ending of a predicate ‘-겠-(may, can),’ adverb ‘아마도(perhaps),’ and ‘-(으)ㄴ 수 있다(can/could be, be able to), -듯하다(seems to be), -(으)ㄴ 것 같다(seems like).’ ‘Subjective attitude’ is a corresponding

6 ‘-수’ is a bound noun meaning the ability to do something or the possibility that a certain event occurs.

(Source: National Institute of Korean Language's Korean-English Learners' Dictionary, <https://krdict.korean.go.kr/eng>)

proposition can be reconciled by revealing that the proposition is not a general fact but a personal opinion and the individual may be the writer himself or a third party. For instance, in the case of ‘나는...생각하다(I think),’ which is used to indicate the writer’s opinion, the verbs play the role of the hedge expression and indirect quotes such as ‘-다고 하다(say that)’ and ‘-다고 알려져 있다(be known that)’ or passive expressions such as ‘-에 따르면(according to)’ can be used as hedges. ‘Connotative expression’ is a type of hedge that passively conveys the writer’s perspective through the implications inherent in a proposition, with negative expressions and interrogative forms being representative examples. Negative expressions often assume positive expressions, serving to evoke positive interpretations. Therefore, negative expressions can implicitly encompass the meaning of positive expressions (Shin, 2006). Similarly, interrogative sentences, in contrast to declarative forms, carry opposite meanings. With a statement in the form of a question, the writer can circumvent what they mean to convey without expressing their opinion.

Third, Korean hedges that contribute to the formation of a relationship between the writer and the reader can be classified into ‘performative mitigation’ and ‘burden mitigation.’ ‘Performative mitigation’ involves softening propositions related to requests, advice, etc., with expressions that considerate to prevent the reader from feeling pressured. By combining the obligatory modality of ‘-아야/어야 하다 (must)’ and the speculative modality of ‘-을 것이다(will be),’ the sense of obligation can be alleviated, and expressions like ‘필요가 있다(be necessary)’ can soften the writer’s argument. Additionally, ‘burden mitigation’ reduces the perceived burden for the reader in propositions related to requests, advice, etc., by using inclusive terms like ‘우리(we), 인간(humans)’ to broadly present the actor and encourage reader engagement. The above is summarized as follows:

Table 2. Classification of Korean hedges

Function	Semantic function		Example
Ensuring Objectivity	Avoiding accuracy	Quantifies in relative terms	거의(almost), 주로(mainly), 크게 (largely), 비교적(relatively), 그리(so), 다소(somewhat), 약(approximately)
	Preventing generalization	Emphasizes that it is a part of a whole	일종의(a kind of), -중의 하나(one of)
Easing Responsibility	Passive attitude	Withholds judgment due to possibility and inference	-겠-(may, can), 아마도(probably), -(으)ㄹ 수 있다(can/could be, be able to), -듯하다(seems to be), 것 같다(seems like)
	Subjective attitude	Personal and not general view	indirect quotation, passive expression, -에 따르면(according to), expressions with thinking verbs
	Connotative expression	Expresses view connotatively and indirectly	negative expression, interrogative sentence
Building Interpersonal Relationships	Performative mitigation	Relaxes the content of a proposition, such as request or advice	-아야/어야 할 것이다(would have to), 필요가 있다(it is necessary)
	Burden mitigation	Reduces pressure from propositions, such as request or advice	우리(we), 인간(humans)

III. Methods

1. Data sources

All the data were collected to build a corpus by argumentative texts from two groups. Firstly, the corpus for the non-native speaker group was derived from the writing prompts of the Test of Proficiency in Korean (TOPIK). The data utilized in this study for the information disclosure related to Question 54 in the Writing section of the 60th

Test of Proficiency in Korean (TOPIK II) pertains to a task where candidates express their thoughts on a given topic through a 600-700 word manuscript.⁷ In the 60th examination, candidates were tasked with explaining the advantages and problems of ‘early education’ and providing evidence regarding their agreement or disagreement.

Additionally, the argumentative texts from the native speaker group were collected from the final exam of the “Basics in Writing” course at A University. The texts were written by 49 undergraduate students, and the essay prompt focused on the topic of “The Future of Big Data.’ Students were required to choose either a positive or negative stance on the future of big data and provide supporting evidence for their chosen position.

Table 3. Argumentative essay questions of non-native speakers and native speakers

argumentative essay question of Korean learners	argumentative essay question of Korean native speakers
60th TOPIK II Writing part no. 54	the final exam in A university's <Basics in Writing>
• What are the advantages of early education? • What are the disadvantages of early education? • Do you agree or disagree with early education? Give your opinion and supporting points.	Discuss ‘The Future of Big Data’ and give your opinion. (* Take your position in positive and negative position and give supporting points for your position.)

Both questions required candidates to choose a stance, whether they agree or disagree or regard the issue in a positive or negative light and explain their thoughts. The fact that both groups of argu-

7 Currently, the National Institute for International Education, which develops and administers TOPIK, does not disclose information in accordance with “Regulations for Test of Proficiency in Korean, Article 12 (Grade Processing),” so data from relatively recent administrations were not available. The data used in this study was obtained legally by requesting for information disclosure before the establishment of this regulation.

mentative texts require participants to advocate for either a positive or negative stance aligns well with the purpose of this study. Hedging is greatly influenced by the genre characteristics of the text, adhering to genre similarities aligns well with the purpose of this study.

2. Analysis data

The collected argumentative text data was used to construct a corpus. Initially, the learner’s corpus comprised responses from candidates in Vietnamese, English, Japanese, and Chinese, with 100 samples from each language, totaling 400 samples. This study used 96 out of 400 copies to meet the length requirement of 650 characters and complete the last sentence, and used the 96 copies to compose a ‘Korean Learners’ Corpus of Argumentative texts (Learners’ Corpus).’⁸ The size of the Learners’ Corpus constructed in this study is shown in Table 4.

Table 4. Size of Learners’ Corpus

Essay topic	the pros and cons of				Total
	early education			increasing tourists	
Native language	Vietnamese	Japanese	Chinese	English	
Number of writings (A)	11	12	32	41	96
Number of sentences(B)	186	171	514	576	1,447
Number of eojools (C)	1,933	2,064	5,606	6,112	15,715
Number of sentences per piece (B/A)	17	14	16	14	15

8 While transcribing, it was discovered that the answer sheets from English-speaking candidates were centered around the theme of ‘the pros and cons of increasing tourists,’ with candidates not explicitly stating their stance. However, English-speaking test takers used a variety of hedges in the process of explaining the ‘pros and cons of increasing tourists.’ Consequently, they were not excluded from the study.

Number of eojjeols per piece (C/A)	176	172	175	149	164
Number of eojjeols per sentence (B/A)	10	12	11	11	11

The size of the ‘Korean Native Speakers’ Corpus of Argumentative texts (Native Speakers’ Corpus),’ which is used in comparison, is the same as in Table 5.⁹

Table 5. Size of Native Speakers’ Corpus

Essay topic	The Future of Big Data
Native language	Korean
Number of writings (A)	49
Number of sentences (B)	940
Number of eojjeols (C)	12,514
Number of sentences per piece (B/A)	19
Number of eojjeols per piece (C/A)	255
Number of eojjeols per sentence (B/A)	13

The manuscripts composed by native Korean speakers were around 1,000 characters long and longer in terms of the number of sentences per piece and the number of words per piece. However, in terms of the size of corpus based on the number of eojjeols,¹⁰ the size of Learners’ Corpus was 26% (15,715/12,514-1) larger than those of Native Speakers’ Corpus. It is worth noting that Korean learners

9 The argumentative texts from native speakers are identical to the 49 argumentative texts collected from undergraduate students at University A, as gathered by Yu and Hong (2019).

10 ‘eojeol’ is each and every single word segment that makes up a sentence in Korean. (Source: National Institute of Korean Language’s Korean-English Learners’ Dictionary, <https://krdict.korean.go.kr/eng>)

were using shorter sentences (comparison of the number of eojeols per sentence, B/A) compared to native Korean speakers; this seems to be related to the usage of hedges with Korean learners, which will be discussed later.

3. Analysis method

The corpus constructed for this study was analyzed using Excel and the AntConc program. Initially, the frequency of hedges identified in the 'Learners' Corpus' was categorized according to the types of hedges classified in Section II. This categorization was then compared with the frequency in the 'Native Speakers' Corpus'. Subsequently, employing a lexical bundles perspective, an analysis of the characteristics of hedges used by Korean language learners, specifically focusing on '-(으)ㄴ 수 있(없)다,' revealed that this expression was predominantly chosen by both Korean language learners and native speakers in their argumentative texts. An examination of the actual usage patterns of hedges containing '-(으)ㄴ 수 있(없)다' by Korean language learners and native speaker's argumentative texts was conducted. Finally, drawing from the viewpoint of writing fluency, implications for Korean hedge education were derived.

IV. Results

1. Type and frequency of hedges in both groups

In Section II, hedges were categorized into three types: those that ensure the objectivity of proposition contents, mitigate the author's responsibility, and establish a connection between the author and the reader. In addition, each type was classified into two or three sub-types, resulting in a total of seven subtypes. First, the types and

frequencies of hedges in both groups were shown in Table 6.

Table 6. Type and frequency of hedges in both groups

Type	Frequency	
	Native Speakers' Corpus	Learners' Corpus'
Avoiding accuracy	16	20
Preventing generalization	34	50
Passive attitude	417	529
Subjective attitude	163	204
Connotative expression	22	63
Relaxing performativity	24	32
Relaxing pressure	5	10
Total	681	908

For both the Native Speakers' Corpus and the Learners' Corpus, instances where multiple types of hedges appeared in a sentence were counted separately. In cases where the same type of hedge was used consecutively, the combination was treated as a single hedge.¹¹ The frequency analysis of each type of hedge aimed to explore the overall similarity and difference in the usage of hedges between Korean learners and native speakers, revealing that there was not a substantial difference. As shown in Table 4 and Table 5, since the number of sentences in the Learners' Corpus was 54%(1,447/940-1) larger than that of the Native Speakers' Corpus, the frequency of hedges that

11 For example, in the case of '-다고 말할 수 있다(can say that),' '-다고 말하다(say that)' falls under the category of 'Subjective attitude' and '-(으)르 수 있다(can)' falls under 'Passive attitude'; the frequency was counted respectively. In the case of '-지 않습니까?,' the negative expression and the question were combined into a single hedge expression was counted 'Connotative expression.' In addition, even if a hedge expression such as '-아/어야 한다' is followed by '-(으)르 것이다,' we counted the entire expression as a single entity and categorized it under 'Relaxing performativity' because '-아/어야 하다' is not a hedge.

mainly came in the combined form of verbs and endings of a predicate was 33%(908/ 681-1) greater for the Learners' Corpus than the Native Speakers' Corpus. However, when examining the distribution, no significant difference was observed compared to that of native speakers, as shown in Table 6. The noteworthy distinction in hedge usage lies in the reference to the writer's 'subjective attitude.' Native speakers frequently used '필자 (author),' whereas all Korean learners used '나 (I)' or '저 (I)' except for one case.

2. Frequency of the usage of lexical bundles¹² containing '-(으)ㄴ 수 있(없)다'

As observed in Table 6, both Korean learners and native speakers predominantly utilized the hedge of 'Passive attitude.' The frequent use of a specific expression suggests familiarity and confidence among the users. Now, let's examine the hedges that incorporate '-(으)ㄴ 수 있(없)다,' which is the most frequently used by both Korean learners and native speakers within the category of 'Passive attitudes.' This analysis aims to uncover the distinctive characteristics of how Korean learners employ this expression.

First, we used AntConc's 'Clusters/N-Grams' function¹³ to look for a two eojeols expression that includes '-수-(Table 7).' The results of Table 7 were found from all 1,447 sentences of Learners' Corpus and

12 Biber et al. (1999) define lexical bundles as "recurrent expressions occurring commonly in word combinations, irrespective of their idiomatic nature or structural status." Additionally, a lexical bundle is defined as a sequence of three or more words that frequently cooccur in a specific register. Numerous studies on lexical bundles delve into the structural and functional distribution of these bundles within a given corpus. The aim is to enhance our understanding of the role of lexical bundles in academic prose by comparing their usage patterns.

13 The reason we used AntConc for an initial analysis is that we wanted to quickly understand the characteristics of hedge expressions that use '-(으)ㄴ 수 있다' in the Native Speakers' Corpus. We were to review each corpus through Excel, so we did not edit any grammatical and spacing errors while analyzing via AntConc. Therefore, the results in Table 7 exclude spacing errors such as '수있다.'

940 sentences of Native Speakers' Corpus, with a total of 63 two eojeols clusters by type and a total of 561 two eojeols clusters by standards of the token.

Table 7. two eojeols expression containing ‘-수-’ in Learners’ & Native Speakers’ Corpus

Total No. of Cluster Types 63			Total No. of Cluster Tokens 561
Rank	Freq	Range	Cluster
1	214	2	수 있다
2	88	2	수 있는
3	35	2	수 있을
4	27	2	수 있게
5	25	2	수 있다는
6	22	2	수 있고
7	17	2	수 있기
8	13	2	수 있다고
9	13	1	수 있습니다
10	9	2	수 없는
11	9	1	수 있었다
12	9	1	수 있으며
13	8	2	수 없다
14	7	2	수 있지만
15	4	1	수 없을
16	3	1	수 없었던
17	3	2	수 있도록
18	2	2	수 도
19	2	1	수 많은

In the case of ‘수 있다,’ which had 214 occurrences, the majority were sentences concluding with ‘-(으)ㄴ 수 있다,’ appearing 90 times in the Learners’ Corpus and 124 times in the Native Speakers’ Corpus. Moving on, for ‘수 있을’ with 35 occurrences, 27 instances took the form of ‘-(으)ㄴ 수 있을 것이다,’ and 8 instances were structured as ‘-(으)ㄴ 수 있을 것으로/것이라(고) + thinking verbs.’ Of the 35 occurrences in these two patterns, 5 appeared in the Learners’ Corpus, while 30 appeared in the Native Speakers’ Corpus. Although both ‘수 있다’ and ‘수 있을’ were frequent in the Native Speakers’ Corpus, ‘수 있을,’ especially in the context of ending expressions with other phrases, appeared only 4 times in the Learners’ Corpus. Given that the Learners’ Corpus comprised a total of 1,447 sentences, it can be

observed that its occurrence was nearly negligible.¹⁴

In addition to ‘수 있을,’ forms in which ‘-(으)르 수 있다’ is combined with another ending expression to create a lexical bundle include ‘수 있게,’ ‘수 있기,’ ‘수 있다고,’ and the frequency of corpus is equal to that shown in Table 8. ‘수 있게’ appeared in the form of ‘-(으)르 수 있게 + 되(하)다/해준다,’ ‘수 있기’ appeared in the form of ‘-(으)르 수 있기 때문에/이다,’ and ‘수 있다고’ appeared in the form of ‘-(으)르 수 있다고 + thinking verbs/하다.’ Excluding ‘수 있기’ most of them did not appear frequently in the Learners’ Corpus. For ‘수 있기 때문에/이다,’ this is a versatile expression typically learned early and easily by Korean learners. Consequently, this study presumed its frequent usage in the Learners’ Corpus. The summarized content above is presented in the following table:

Table 8. two eojeols expression including ‘-수-’ in Learners’ & Native Speakers’ Corpus

Lexical Bundle	Frequency in Learners’ Corpus	Frequency in Native Speakers’ Corpus	Total
수 있다	90	124	214
수 있을	5	30	35
수 있게	8	19	27
수 있기	12	5	17
수 있다고	6	7	13

3. The usage patterns of lexical bundles containing

‘-(으)르 수 있(없)다’

As shown in Table 9, hedges containing ‘-(으)르 수 있(없)다’¹⁵ in

14 In the case of ‘수 있는’ with 88 hits, most of them are in the form of ‘-(으)르 수 있는 N’ and are mostly different from the hedge used in the ending expressions.

15 Hedges that include ‘-(으)르 수 있다’ also include expressions such as ‘-(으)르 가능(성)/확률...이/가 있다/크다.’

Learners' Corpus appeared 385 times. Of these, ‘-(으)ㄴ 수 있(없)다’ was used by itself as a connecting ending expression or an ending expression 277 times (72% of the total) and ‘-(으)ㄴ 수 있(없)다’ was used 108 times (28% of the total) within a lexical bundle in combination with other ending expressions. On the other hand, of 267 hedges containing ‘-(으)ㄴ 수 있(없)다’ in Native Speakers' Corpus, cases in which ‘-(으)ㄴ 수 있(없)다’ was used alone amounted to 138 times (52% of the total) and cases in which it was used in a lexical bundle amounted to 129 times (48%). Therefore, Table 9 indicates that Korean learners employ hedges containing ‘-(으)ㄴ 수 있(없)다’ in a more straightforward manner compared to native Korean speakers.

Table 9. Frequency of lexical bundles containing ‘-(으)ㄴ 수 있(없)다’ in Learners' & Native Speakers' Corpus

Corpus	Learners'		Native Speakers'	
Usage patterns of '-(으)ㄴ 수 있(없)다'	single form	lexical bundle	single form	lexical bundle
Frequency(%)	277(72%)	108(28%)	138(52%)	129(48%)
	385(100%)		267(100%)	
	652			

Out of the 129 lexical bundles containing ‘-(으)ㄴ 수 있(없)다’ in the Native Speakers' Corpus as shown in Table 9, various types of hedges were utilized. For instance, refer to (1)-(5).

- (1) 그러나 필자는 이러한 문제는 연구를 통해 개선될 수 있다고 생각한다.

However, the author believes that these issues can be addressed through research. (#NK_13)
- (2) 하지만 이러한 문제점들에 대한 안 좋았던 결과들이 또다시 빅데이터로 들어가면 들어갈수록 빅데이터가 이를 해결할 수 있는 방법들을 제시해줄 수 있을 것이라 생각한다.

Nevertheless, as problematic outcomes are further incorporated into

big data, I think big data can suggest methods to resolve these issues. (#NK_26)

- (3) 이는 빅데이터가 도입된지 얼마 되지 않아 발생하는 일이라 생각하며, 관련 법의 강화와 사회적 인식 개선을 통해 해결될 수 있을 것이라고 본다. (#NK_28)

I consider this to be a recent occurrence since the introduction of big data, and I believe it can be resolved through the strengthening of relevant laws and improvement in societal awareness. (#NK_28)

- (4) 인간이 할 수 있는 기본적인 운전과 같은 일에서 전문적인 사고와 같은 심층적인 일까지, 인공지능이 쉽고 빠르게 처리해 줄 수 있을 것이다. (#NK_31)

From basic tasks such as human driving to complex tasks like professional reasoning, artificial intelligence is expected to handle them easily and swiftly. (#NK_31)

- (5) 다만 분석을 성공적으로 할 수 있다면 개인의 속성을 더 정확하게 알아낼 수 있을 것으로 생각된다. (#NK_32)

However, if the analysis is successful, it is thought that one can more accurately discern individual attributes. (#NK_32)

In this way, native speakers use a diverse list of complex hedges, such as ‘-(으)ㄴ 수 있(없)다’ combined with various forms like ‘-아/어 나갈/볼/줄/질 수 있을 것이다,’ ‘-아/어 줄 수 있을 것이라 생각하다,’ ‘-(으)ㄴ 수 있다고 보인다,’ ‘-(으)ㄴ 수 있을 것으로 생각/예상/예측/전망되다,’ ‘-(으)ㄴ 수 있을 것이라고 보다,’ and more.

On the other hand, among the 108 lexical bundles containing ‘-(으)ㄴ 수 있(없)다’ for foreign language learners, there were 79 instances where expressions like ‘-(다)는 것이다,’ auxiliary verbs, ‘-기 때문이다,’ ‘-게 하다,’ and ‘-(으)ㄴ 수 있(없)다’ were either combined or used in the form of ‘-(으)ㄴ 가능(성)/확률...이/가 있다/크다.’ For example, refer to (6)-(10).

- (6) 그 관광지 주변에 있는 가게, 식당 그리고 숙지가 관광객들에게 사용되면서 돈을 더 벌수있다는 것 이다.

The shops, restaurants and familiar areas around the tourist destinations can make more money as tourists use them. (#EK_7338)¹⁶

- (7) 한창 같은 나이의 어린이들과 뛰어놀 시기에 강제로 교육을 시킨다는 것은 어린이에게 부담을 형성해줄수 있으며 어린이의 심리에도 부정적인 영향을 끼칠수 있다.

Forcibly educating children when they should be playing with children of the same age can build pressure on the child and negatively affect the child's psychology. (#CK_8810)

- (8) 왜냐하면 어릴 때 아이들은 세상에 대한 궁금한 것이 많아서 어떤 것을 배우면 빠르게 배울 수 있기 때문이다.

This is because children have a lot of questions about the world when they are young and can learn quickly if they learn something. (#VK_3628)

- (9) 관광지에 관광객도 있으면 그 장소가 유명하고 많이 알려진 데라고 바로 알 수도 있고, 이 관광지가 사람들이 좋아하고, 왜 오고 싶어하는지도 깨닫게 할 수가 있다.

If there are tourists in the tourist area, you can immediately know that the place is famous and known, that it is somewhere people like, and why people like to go there. (#EK_7653)

- (10) 혹시 친구가 조기 교육을 받은 적이 있기 때문에 자기보다 더 잘할 수 있는 것이 있으면 스스로 나도 하고 싶다는 감정이 될 가능성이 있습니다.

If your friend is better at something than you because they have received early education, there is a you will feel like you want to also achieve it yourself. (#JK_4575)

Example sentences (6)-(10) in the Learners' Corpus represent a combination of common expressions and ‘-(으)ㄴ 수 있(없)다.’ These types of combinations typically involve fundamental expressions taught at elementary and intermediate levels. Considering that TOPIK

16 The grammar in the collected texts are displayed as is.

II is designed for intermediate and advanced learners, and this study specifically selected responses exceeding 650 words, it is evident that intermediate and advanced learners adeptly utilize hedges, combining basic expressions learned at elementary and intermediate levels with ‘-(으)ㄴ 수 있(없)다,’ a structure commonly employed in argumentative texts.

However, Among the 108 lexical bundles that contain ‘-(으)ㄴ 수 있(없)다’ in the Learners’ Corpus in Table 9, there were 29 cases in which hedges in the form of indirect quotation, negative expression, and interrogative sentence were used. For example, see (11)-(13).

- (11) 따라서 조기 교육의 장점을 잘 인식한다면 정확한 방법으로 아이들은 인생에게 도움이 최대화시킬 수 있을 것이다.

Thus, if you are well aware of the benefits of early education, you can maximize the help to life for children. (#CK_8808)

- (12) 배움은 새로운 것을 알아갈 때의 희열과 관심을 통해 재밌어지는데, 이미 알고 있는걸 또 배우는 것은 지루해져, 오히려 조기 교육을 받은 아이들이 일찍 포기 할 수 있다고 생각한다.

Learning becomes fun through the joy and interest of knowing new things and learning what you already know becomes boring, so I think that children who have received early education can give up early. (#VK_8078)

- (13) 하지만 조기 교육을 통하여 많은것들을 시도해보는다면 자신의 재능을 찾는 데 시간을 어느정도 절약할수 있지 않을까?

But could you not save time in finding your talent if you try a lot of things through early education? (#CK_8855)

Examples (11)~(13) demonstrate the usage of ‘-(으)ㄴ 수 있(없)다’ in conjunction with various other hedges. The notable difference between learners and native speakers lies in the frequency of ‘-(으)ㄴ 수 있을 것이다’ and the variety of verbs used for indirect quotation. Specifically, while ‘-(으)ㄴ 수 있을 것이다’ appeared only four times in the Learners’ Corpus, it appeared not only in this form but also as ‘-(으)

르 수 있을 것으로/것이라(고) + thinking verb' a total of 29 times in the Native Speakers' Corpus. Furthermore, among 96 learners, only one used '-(으)르 수 있을 것이다' four times. In contrast, 18 native speakers used a hedge containing '-(으)르 수 있을 -' out of a total of 49 collected texts, indicating that over one-third of native speakers utilized a lexical bundle with '-(으)르 수 있을 -'.¹⁷

Additionally, concerning indirect quotation, learners predominantly used '-(으)르 수 있다고 (생각)한다,' while native speakers employed a variety of verbs, such as '-(으)르 수 있다고 반론을 제기하다/우려하다/판단되다/보이다,' or used '-(으)르 수 있다' to convey '-(으)르 수 있다고 생각할 수도 있다' at the end. While the use of long and complex hedges doesn't necessarily determine the quality of a sentence, it appears that learners rarely employ lexical bundles that combine '-(으)르 수 있(없)다' with other hedges, as evident from the analysis.

In the application of hedges employing '-(으)르 수 있(없)다,' the usage by Korean learners exhibited distinctive characteristics compared to that of native speakers. This characteristic difference can be interpreted as an outcome of an interlanguage phenomenon.

V. Discussion and Conclusion

This study categorizes Korean hedges and examines classification and frequency of hedges that are revealed in argumentative texts of foreign Korean learners and native Korean speakers. In addition, this study reviewed the usage of Korean language learners' hedges,

17 An analysis of 18 compositions by native speakers using a hedge containing '-(으)르 수 있-' showed that hedge expressions were mainly used to describe the author's speculations about the future of big data in the middle and late part of the text. However, in estimating the future of students who received or did not receive early education in the same way, Korean learners could hardly use the hedge containing '-(으)르 수 있-'.

focusing on the most frequently used hedge ‘-(으)ㄴ 수 있(없)다’. The reason why ‘-을 수 있(없)다’ frequently appears in argumentative texts is that ‘-을 수 있(없)다’ inherently carries the meaning of possibility while simultaneously serving the hedging function of conveying the author’s opinion in a nuanced manner. This is because the author aims to present their argument with a nuanced attitude, avoiding definitive statements.

As a result of analysis of the Learners’ Corpus and the Native Speakers’ Corpus, foreign Korean learners mostly used ‘-(으)ㄴ 수 있(없)다’ by itself.¹⁸ And in cases where they used a different hedge expression in the form of a lexical bundle in combination with ‘-(으)ㄴ 수 있다,’ that they have learned from the most elementary stages in language education to combine more familiar forms such as ‘-(으)ㄴ 수 있다는 것이다,’ auxiliary verb + ‘-(으)ㄴ 수 있다,’ ‘-(으)ㄴ 수 있기 때문이다,’ ‘-(으)ㄴ 수 있게 하다.’ In contrast to Korean native speakers, foreign learners struggled to use ‘-(으)ㄴ 수 있다’ in combination with other hedges in the form of lexical bundles, such as ‘-(으)ㄴ 수 있을 것이다,’ ‘-(으)ㄴ 수 있을 것으로/것이라(고) + thinking verbs.’ The combination of hedges was a challenge for Korean learners because those expressions are not semantically more pronounced.

Regarding the usage of lexical bundles that include ‘-(으)ㄴ 수 있(없)다,’ learners more frequently used the combined form of expressions + ‘-(으)ㄴ 수 있(없)다’ than ‘-(으)ㄴ 수 있(없)다’ + other hedges;

18 An anonymous reviewer pointed out that a detailed analysis of the specific characteristics of ‘-(으)ㄴ 수 있(없)다’ in argumentative texts, expanding its meaning, could have scholarly significance. This observation aligns with Park (2018) assertion that ‘-(으)ㄴ 수 있다’ is a frequently used hedge in academic theses, particularly in the sections on ‘research methods’ and ‘literature review.’ In this study, it is anticipated that examining the usage of ‘-(으)ㄴ 수 있(없)다’ in paragraphs presenting claims and providing evidence in argumentative texts may reveal distinctive patterns. However, since this research primarily focuses on usage patterns between two groups and does not delve into the developmental structure of text paragraphs, it is acknowledged that this aspect needs to be addressed in future studies to provide a more comprehensive analysis.

this phenomenon can be considered an interlanguage phenomenon. In other words, learners are using lexical bundles containing hedges to enhance the persuasiveness of their arguments, but they tend to rely on expressions learned at an earlier stage, struggling to utilize combinations of hedges or lexical bundles with greater ambiguity. Since the use of lexical bundles is directly linked to writing fluency, learners can enhance their ability to produce fluent Korean sentences through training in the use of lexical bundles with hedges in advanced writing education.

The significance of the above study lies in providing statistically significant frequencies of useful lexical bundles, which can serve as foundational data for creating refined vocabulary lists. As demonstrated in the comparison of the corpora from both groups, foreign language learners face difficulties in using lexical bundles compared to native speakers. However, this study has limitations in not offering specific methods and activities that can be applied in Korean language education. This aspect remains a task for future research.

* Submitted 2023.11.14.
First revision recieved 2023.11.21.
Accepted 2023.12.6.

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A Comparative Analysis of Lexical Bundles in Native and Non-Native Argumentative Writing Using Hedge

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This study aimed to analyze the usage of hedges among native and non-native argumentative writing to derive educational implications for Korean hedge education. Hedges serve as linguistic devices employed for persuasion strategies in argumentative texts, yet even advanced learners encounter challenges in their usage. The study focused on the frequency of seven hedges (Avoiding accuracy, Preventing generalization, Passive attitude, Subjective attitude, Connotative expression, Relaxing performativity, Relaxing pressure) in both Learners' and Native Speakers' Corpora. Additionally, it delved into the characteristics of hedges, including ‘-(으)ㄴ 수 있(없)다,’ as used by learners.

The analysis revealed that Korean learners predominantly used ‘-(으)ㄴ 수 있(없)다’ on its own, relying on expressions learned at an earlier stage when constructing a lexical bundle that included ‘-(으)ㄴ 수 있(없)다.’ In contrast, native speakers demonstrated a more intricate usage, combining ‘-(으)ㄴ 수 있(없)다’ with other hedges like ‘-(으)ㄴ 수 있을 것이다’ and ‘-(으)ㄴ 수 있을 것으로/것이라(고) + thinking verbs.’ The findings suggest that the amalgamation of hedges poses a challenge for Korean learners. However, recognizing that the use of lexical bundles is integral to writing fluency, it is imperative for advanced learners to undergo training in employing lexical bundles with hedges.

KEYWORDS Korean language education, Hedges, Argumentative writing, Corpus, Lexical bundle, -(으)ㄴ 수 있(없)다