

Corpus-Based English Grammar Instruction in a Korean College Context

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Lee, Youn-Kyoung. (2016). Corpus-Based English Grammar Instruction in a Korean College Context. *The Linguistic Association of Korea Journal* 24(4), 39-60. The present study aims at examining to what extent corpus and contextualized lexicogrammar are applicable and effective when used in a Korean college context. This study was conducted in a College Intermediate English Grammar Course involving 63 participants (61 EFL students and 2 Korean instructors). Data included students' corpus search assignments, grammar exercises, Likert-scale questionnaire, and interview data from both students and instructors about their reflections on corpus-based learning and teaching. The results of the study revealed several positive effects of the approach, such as improvement of language awareness, better command of some lexicogrammatical rules and patterns, understanding of importance of context in language use, enhanced opportunity of discovery learning. The results also revealed some challenges of corpus-based grammar learning, including the difficulty students feel in corpus analysis. Based on the findings of the study, useful teaching strategies and suggestions for future corpus-based learning are also discussed.

Key Words: corpus-based language teaching, English grammar instruction in a Korean college context, contextualized lexicogrammar

1. Introduction

During the past decade, many publications evidenced a revived interest in grammar teaching in foreign and second language learning. Those included the importance and benefits of grammar instruction in students' second language

acquisition (Ellis, 2001, 2002; R. Ellis, 2005; Philp, 2003) and advocated new methodologies and approaches to grammar instruction (Ellis, 1995; Hinkel & Fotos, 2002; Hughes & McCarthy, 1998; Larsen-Freman, 2002, 2003). These methodologies and teaching practices for grammar instruction included teaching grammar in discourse contexts, approaching grammar from a lexicogrammatical perspectives, and using corpus in grammar instruction (Bennett, 2010; Boulton, 2009, 2010; O'Keeffe, McCarthy & Carter, 2007). In particular, with the rapid advancement of educational technologies, many studies have shown that corpus use in language teaching can make L2 learning and teaching more interesting and effective (Bennett, 2010; Boulton, 2009, 2010; Carther & McCartghy, 2006; O'Keeffe et al., 2007; Yoon, 2008; Nam, 2010). Classroom research has indicated that corpus use is especially helpful for learning lexicogrammatical rules and patterns. Via concordancing searches, language learners can obtain, observe, and analyze useful language data about the lexicogrammatical items they are interested in and they discover and generalize these items' usage rules and patterns. Such corpus-based learning is very effective because engages learners in active "discovery learning" (Aston, 2001, p. 19). Moreover, corpora are very helpful for L2 learners to learn register difference in the use of lexicogrammar, such as context-based variations in lexicogrammar use (Huston, 2002; Huston & Francis, 1998; Carther & McCartghy, 2006; O'Keeffe et al., 2007).

Given the aforementioned valuable uses of corpora found in L2 learning and teaching, it is rather surprising and unfortunate that there has not been much research about corpus use in ESL or EFL classes. Even though there has been a few publications on such corpus use (Sealey & Tompson, 2004, 2007), they all dealt with elementary and secondary school mainstream English education in Britain. Furthermore, research on integrating corpus and conceptualized lexicogrammar in Korean college contexts has been much less reported. Thus, the present study aimed at examining the effectiveness of corpus-based grammar instruction in a Korean college context. With this regard, this study will provide useful suggestions for the future corpus or data-driven grammar learning. This study specifically addressed the following research questions.

- 1) To what extent are corpus and contextualized lexicogrammar applicable and effective when used in a Korean college context?

- 2) What are the effects of integrating a corpus and lexicogrammatical approach in a Korean college context?

2. Literature Review

The importance of teaching grammar in contexts is founded on the belief that grammar deals not only by forms but also by meanings and contextually appropriate use (Bennett, 2010; Boulton, 2009, 2010; Celce-Murcia & Larsen-Freeman, 1999; Celce-Murcia & Olshtain, 2000; Cotos, 2014, Larsen-Freeman, 2002, 2003; O’Keeffe et al., 2007). Conventional grammar instruction, however, focuses on grammatical forms while paying little attention to the importance of contexts, thus failing to address adequately when and why a grammatical form is used in a given context. As a result, students often do not know how to use grammatical forms meaningfully and appropriately. In contrast, teaching grammar in contexts helps students examine and learn how given forms are used in contexts for meaningful communication (Bennett, 2010; Larsen-Freeman, 2002, 2003; O’Keeffe et al., 2007). As pointed out by functional grammarians, grammar focuses on meaning and is treated as a resource for language users in making meaning in a given social context (Celce-Murcia & Olshtain, 2000). Thus, as Larsen-Freeman (2003) and Larsen-Freeman and Cameron (2008) argued, language form, meaning, and use should be approached as an integrated whole. Thus, it is important that English learners learn not only how to use correct grammatical forms, but also how to use them in a meaningful and appropriate way.

Moreover, there has been increasing evidence in applied linguistics revealing the importance of contextual patterns in language use and learning (Huston & Francis, 1998; O’Keeffe et al., 2007). In light of these findings, many scholars argued for the use of a lexicogrammatical approach in language instruction (Aston, 2001; O’Keeffe et al., 2007; Schmitt, 2004, 2005; Sinclair, 1991). Lexicogrammar views lexicon and grammar as two inherently connected parts of a single entry (Sinclair, 1991). In this view, lexical items are often grammatical in nature because the use of a lexical item often has grammatical implications (Conrad, 2000; Huston & Francis, 2000). Findings of relevant studies also

showed that vocabulary learning and grammar learning should often take place simultaneously and the teaching of the two should be conducted together (Aston, 2001; Clear, 2000; Francis, Hunston, & Manning, 1998; Schmitt, 2004, 2005).

The suggestion of using corpus in grammar instruction has resulted from rapid advancement of educational technology. Corpus concordance not only makes accessible an enormous amount of authentic language data, but also provides contextualized information (Aston, 2001; Conrad, 2000; Huston, 2002; O’Keeffe et al., 2007; Sinclair, 1991, 2004). Francis (1993) also pointed out that conducting corpus analysis of grammatical patterns and lexical chunks leads to acquisition of more useful and meaningful grammatical rules. Moreover, corpus data offer contextualized language, which enables students to understand “grammar of choice” in language use (Larsen-Freeman, 2002, p. 105).

While arising from different theoretical roots, teaching grammar from contextualized lexicogrammatical perspective and using corpus in teaching grammar are inherently connected, as shown in many studies (Aston, 2001; Conrad, 2000; Hunston & Francis, 2000; O’Keeffe et al., 2007). For instance, lexicogrammar depends heavily on contextualized patterns, and identifying such patterns requires corpus analysis (Aston, 2001; O’Keeffe et al., 2007). Similarly, contextualized grammar teaching entails the analysis of contextualized grammar usage (Conrad, 2000).

Even though many have pointed out the importance of a contextualized lexicogrammatical approach to grammar teaching and joined the endeavor (Curzan, 2009; Kolln & Gray, 2009; Pharr & Buscemi, 2005), there has not been much research about integrating a corpus and lexicogrammatical approach in EFL college settings. For instance, Sealey and Thompson (2004, 2007) dealt with elementary and secondary school mainstream English classes in Britain. Furthermore, these studies only focused on the use of corpora to raise elementary and secondary students’ metalinguistic knowledge, such as the knowledge of the parts of speech. Yoon and Hirvela (2004) investigated ESL students’ corpus use in L2 writing, but their study only focused on students’ attitudes to corpus use. Park and Yoon (2009) examined the effect of corpus-based approach to vocabulary in a Korean high school. Furthermore, the study focused on comparing the effect of traditional definition-based vocabulary

learning to that of corpus-based vocabulary learning. However, the corpus-based vocabulary learning was only conducted with data extracted from corpus, thus the students did not participate in direct corpus search. Nam (2010) further investigated the effects of corpus-based language instruction on productive vocabulary knowledge in an ESL context. The study used a students' writing practices based on their corpus search and quantitatively analyzed their vocabulary errors. The findings indicated that the concordance was an effective vocabulary reference and learning tool for ESL students. While this study also pointed out the effectiveness of grammar knowledge in addition to lexical knowledge, the study only analyzed the very small writing samples of 21 participants.

In short, research findings have shown the need for a contextualized lexicogrammatical approach to grammar instruction, and corpus can play an important role in such teaching. In other words, integrating corpus and contextualized lexicogrammar in grammar teaching is motivated by the inherent connection and interdependency among these practices. However, even though there has been a few publications introducing the use of corpus in language teaching (Aston, 2001; Huston & Francis, 1998; O'Keeffe & Farr, 2003), little empirical research has been conducted on the effectiveness of these practices. The present study, therefore, was conducted to examine the effectiveness of these theories and practices when used as an integrated approach in a Korean college context.

3. Methodology

3.1. Research Contexts and Participants

The present study was conducted at a university in southeast part of Korea, lasting one semester. The university provided 'College Basic English Grammar' and 'College Intermediate English Grammar' course in each semester, and students were able to take these courses as an elective subject. The goal of the "College Intermediate English Grammar" was to learn and practice essential English grammar for intermediate students of English. All instructors were

Koreans, and they used the same textbook, 'Understanding and Using English Grammar' written by Betty S. Azar and Stacy A. Hagen (2006).

The study participants were selected based on the purposeful sampling because the participants should not have to any previous experience of using corpus, and the students' English proficiency should be at least more than intermediate level. Thus, the students (n=61) enrolled 'College Intermediate English Grammar' course and their respective instructors (n=2) were selected. This course was designed for students with intermediate English grammar skills, and students taking this course had to complete the 'College Basic English Grammar' course in previous semesters. The participants' self-assessed English proficiency level was within the intermediate to upper intermediate range (see Table 1). No lower-level students were included because, as pointed out by Hinkel and Fotos (2002), corpus-based learning was considered to be too challenging for them. It is also important to note that, before the study, the participants did not have any previous experience of using corpus. The corpus used in the study was Corpus of Contemporary American English (COCA).

Table 1. Self-Assessed Level of English Proficiency (n=61)

English proficiency	Student number (n)	Percentages (%)
High	0	0
High-intermediate	21	34
Intermediate	40	66

3.2. Procedures and Data

Prior to the study, the participating instructors underwent a workshop on corpus use and issues such as lexicogrammar and the contextualization of grammar teaching. As corpus use was a new practice for the instructors, they received hands-on workshop on the basic corpus search functions, including concordancing and collocation. To gain an understanding of lexicogrammar, the instructors examined many language examples in which a close connection between grammar and lexis was shown (Hunston & Francis, 2000). To help appreciate the need for contextualization of grammar teaching, instructors looked at many corpus examples that highlighted the

importance of context in language users' lexical choices.

For this course, the students met three hours a week. For the first two hours a week, students learned and practiced English grammar with the textbook in a classroom. For the rest of an hour, the students went to a computer lab for corpus search. Corpus search was conducted based on pair working. For the first week of the course, the instructor underwent a workshop on corpus use. From the second week, each pair were provided a computer lab worksheet (see Appendix 1) for corpus searching. The students were asked to discuss lexicogrammatical problems with the partner and (a) list them on the worksheet, such as bored and boring; (b) the students needed to find examples from COCA that use lexicogrammatical item in the desired way and write one example down on the worksheet, such as I'm bored/The lecture was really boring; and (c) they were asked to describe how the lexicogrammatical item was used on corpus, such as when the subject is a person, bored is used (주어가 사람일 경우 bored로 쓰임)/when the subject is an object, boring is used (주어 사물일 경우 boring으로 쓰임); Finally, (d) they were asked to rewrite their original sentences using the information learned from the corpus, such as I was bored because of boring lecture. While students' corpus searching, the instructors helped and modeled them individually.

On the 15th week of the semester, a Likert-scale questionnaire on corpus use (see Appendix B) were given to the participants. The students and instructors who were willing to participate in an interview were personally contacted after the survey. For the interview, the researcher met each student and instructor individually and spent about 15 to 20 minutes for it. The interview was recorded in a voice-recorder.

3.3. Data Analysis

For the Likert-scale questionnaire, the current study used descriptive statistics. EXCEL was used for coding and analyzing the questionnaire data. The questionnaire consisted of five questions¹⁾. For the interview data, each

1) Five questions included the followings:

1. 코퍼스 사용은 당신의 영어 학습에 얼마만큼 도움이 되었나요?
- 1) 전혀 도움이 되지 않음 2) 약간 도움이 됨 3) 어느 정도 도움이 됨 4) 꽤 도움이 됨 5) 매우 도움이 됨

interview data set was coded and analyzed by highlighting the emergent themes identified through close-reading analysis. For computer lab worksheets, the instructors used for reviewing lexicogrammatical problems the students faced and using them for their teaching.

4. Results and Discussion

4.1. Findings from the Likert-Scale Question

The results from the Likert-scale questions are summarized first in Table 2 as these questions provided a general assessment of integration of corpus and lexicogrammar.

Table 2. Results from the Likert-Scale Questions (n=61)

Q1	Q2	Q3	Q4	Q5
Not at all 0 (0%)	Not at all 0 (0%)	No 0 (0%)	Not important 0 (0%)	Not important 4 (9%)
Minimally 11 (18%)	Minimally 16 (27%)	Probably not 0 (0%)	Little important 5 (8%)	Little important 7 (11%)
Somewhat 27 (45%)	A little 31 (50%)	Not sure 24 (39%)	About the same 22 (36%)	About the same 9 (15%)
Quite 23 (37%)	Quite a lot 14 (23%)	Yes 36 (60%)	Quite important 25 (41%)	Quite important 34 (55%)
Very 0 (0%)	A great deal 0 (0%)	Very much 1 (1%)	Very important 9 (15%)	Very important 7 (11%)

Concerning Likert-scale Question 1 (How helpful has the use of corpus been for your learning?), No participants selected “Very,” 23 (37%) selected “Quite,”

2. 코퍼스 사용을 통해 얼마나 많이 배웠나요?

1) 전혀 배우지 못함 2) 매우 약간 배움 3) 약간 배움 4) 꽤 많이 배움 5) 매우 많이 배움

3. 코퍼스를 앞으로 영어 학습 시 활용하고자 합니까?

1) 전혀 아니다 2) 아마도 아니다 3) 잘 모르겠다 4) 그렇다 5) 매우 그렇다.

4. 코퍼스를 통한 영어 학습 이전과 비교해, 단어와 문법의 관계에 관한 지금의 당신의 생각은 어떠합니까?

1) 전혀 중요하지 않다 2) 별로 중요하지 않다 3) 예전과 동일하다 4) 중요하다 5) 매우 중요하다

5. 코퍼스를 통한 영어 학습 이전과 비교해, 영어단어나 문법 사용을 결정하는 데 있어 문맥의 중요성에 관한 지금의 당신의 생각은 어떠합니까?

1) 전혀 중요하지 않다 2) 별로 중요하지 않다 3) 예전과 동일하다 4) 중요하다 5) 매우 중요하다

27 (45%) selected “Somewhat,” 11 (18%) selected “Minimally,” and no participants (0%) selected “Not at all.” In other words, more than 80 % of the participants found the use of corpora at least somewhat helpful, with 37% considering it quite helpful. No participants viewed it as not helpful at all.

Regarding Question 2 (How much have you learned from the use of corpus?), no participants (0%) selected “A great deal,” 14 participants (23%) selected “Quite a lot,” 31 (50%) selected “A little,” 16 (27%) selected “Minimally,” and no participants (0%) selected “Not at all.” That is, 73% believed they learned at least a little, with 23% feeling they learned quite a lot. No participants felt that they learned nothing.

For Question 3 (Would you like to include the use of corpus for your future English learning?), 1 participants (1%) chose “Very much,” 36 (60%) chose “Yes” 24 (39%) chose “Not sure,” and no participants (0%) chose “Probably not,” and “No.” In other words, even though 39% of the participants were not sure they would use corpora again, the overall question response to the question could be construed as positive because a majority (61%) of the participants said at least yes. An interview data of some participants about their answers to the question indicated two major reasons for the uncertainty and unwillingness to include corpus in their future learning. The interview data revealed that the first reason was concerns the amount of time and the effort that corpus analysis demand. The second reason related to their lack of English vocabulary skills.

For Question 4 (Compared with your previous understanding, what is your current view about the relationship between vocabulary and grammar?), 9 (15%) selected “Very important,” 25 (41%) selected “Quite important,” 22 (36%) selected “About the same,” 5 (8%) selected “Little important,” and no participants (0%) selected “Not important.” In other words, more than 55% now considered the relationship between two at least quite more important than earlier. 36% held the same view as earlier, and 8% now viewed it as little important.

For Question 5 (Compared with your previous understanding, what is your current view about the importance of context in determining language users’ choice of words/grammar?), 7 (11%) participants responded “Very important” 34 (55%) responded “Quite important,” 9 (15%) responded “About the same,” 7

(11%) responded “Little important,” and 4 (9%) responded “Not important.” It can be said that the use of corpus and lexicogrammar did appear to improve the majority of the participants’ understanding of the importance of context in language use because 41% of the participants now considered it more important than their previous thought. Only 20% thought it little important and not important. Moreover, an interview data revealed that, of the 15% who held the same view as before the study, some did not change their view because they already knew the importance of context even before the study.

4.2. Findings from the Interview Question

To examine more in-depth information on effects of integrating corpus and lexicogrammatical approach, a semi-conducted interview was conducted. After responding the Likert-scale questionnaire, the participants were asked to participate in an follow-up interview. The interview was conducted on a voluntary basis, and 18 students and 2 instructors voluntarily participated in the interview. As most of the interview questions on the student and instructor version were the same with only slight wording differences (see Appendix B), the discussion of the findings from the interview will cover both the students’ and instructors’ responses. For the following interview data, pseudonyms were used. An analysis of the data revealed some positive effects, some challenges, and useful strategies to integrate corpus and lexicogrammar in the future English grammar class.

4.2.1. Benefits

The first benefits of the use of the new teaching approach was improved awareness of vocabulary and a better command of some lexicogrammatical rules and patterns. In answer to the first question regarding what were the most useful things they learned in the course, most of the participants (n=17) stated word and structural usage patterns. More importantly, in response to the question 3 and 4 concerning what they had learned from corpus searches and what aspects of language they found the use of corpus searches most helpful in learning, more than two thirds (n=13) mentioned lexicogrammatical rules and

patterns. In particular, they revealed that learning differences between synonymous lexicogrammatical items had been the most helpful. Some participants highlighted on their answer that the corpus search helped them learn authentic lexicogrammatical usage information they could not have gained otherwise. For instance, Jane said:

“We[I and my partner] solved grammar problems we haven’t figured out together because we could instantly find out a lot of authentic examples and patterns from corpus searches. I think I could not find out these kinds of examples and patterns in the dictionary.”

In fact, effective learning of lexicogrammatical patterns was clearly shown in students’ corpus search worksheets, such as “interesting” vs. “interested” and “small” vs. “short.” As shown in the students’ corpus search worksheets (see Appendix A), the search for such patterns was the most frequently conducted by the majority of the students. Furthermore, some of the participants (n=4) reported that the type of search activity was the most valuable and they would like to do more in the future.

The second benefits of using corpus-based lexicogrammatical approach was understanding the importance of context in language use. A number of the participants (n=13) revealed that the corpus search made them understand better how lexicogrammatical use was affected by context, which is a sentence(s) in concordance lines. Moreover, they stated that understanding the importance of context in lexicogrammatical use was the most valuable thing they learned in this course. To elaborate, some participants stated that examining lexicogrammatical rules and patterns gave them a lot of opportunities to experience how context determined people’s choice of lexicogrammatical items and how form, meaning, and use were interrelated. For instance, one group of students examined the grammatical patterns of “too+adjective” versus “so+adjective”; they found that “too” was usually followed by negative adjective (i.e., used negatively), as shown in examples like “too difficult for students,” whereas “so” was often used positively, as in “so gentle with my mother.” The findings seemed to lead students to recognize the importance of context and the connection with form, meaning, and use. Luna

also pointed out:

“I used to examine only meaning without context. However, by examining sentences from corpus searches, I could learn how these words are used in context and why we should make word choices when using ‘too’ and ‘so.’

To give another example, one pair’s corpus search worksheet about the passive use of the verb “ask” showed a very significant difference across COCA’s subcorpora. Out of the first 100 tokens of passive “ask,” only 15 (15%) were in spoken category, 10 (10%) were in written fiction, 20 (20%) were written magazine, 28 (28%) were written news, and 27 (27%) were in written academic. This finding clearly suggested that the passive form is less used in spoken English but more frequently used in written English, and it led one member of the pair to the following comment: “Now I realized how to use passive voice in context and when to use it. Before the corpus search, I’ve never thought about it.”

The search for lexicogrammatical patterns across registers, such as subcorpora, was especially helpful in improving students’ understanding of the importance of context in grammar. Many students stated that they appreciated the COCA search ability because it provided them with the contextualized usage information they could not learn otherwise. Joe commented, “Different types of subcorpora also helped me develop my sense of situational use which I’ve not been able to learn from any book and instruction.” In addition, corpus furnished students with contextual information, which help them understand language usage better. For example, Jim stated, “When I searched blow up, it was used mostly to mean explode, but when I searched blow something up, I learned it meant add air.” Regarding the value of contextual information that corpus provides, Joe pointed out that corpus data was very useful to understand the words through contextualization.

The third positive effect of the use of corpora and lexicogrammar was an enhanced critical understanding of grammar on the part of both the students and instructors. For example, Jessy stated, “So far, I simply memorized vocabulary and grammar rules without understanding how actual words and

[grammatical] forms were used in a sentence. Now, I learned that understanding of the meaning in context is critical.” Similarly, another student, Tom commented as following:

“Before this course, I simply learned grammar from teachers and memorized the rules without considering their use and meaning in contexts, but, now, I know these rules can be applied differently depending on situations and contexts...like whether they [rules] are used in spoken or written contexts.”

Referring to instructors’ comments, one instructor, Joan pointed out that she has now more critical views on grammar because corpus findings have challenged the traditional view about grammar which was comprised of rigid rules that native speakers follow.

As the fourth benefit of using corpus-based lexicogrammatical approach, quite a few students and two instructors stated that corpus searches provided an opportunity of promoting discovery learning and made learning more interesting and effective. These students (n=6) considered improvement of discovery learning skills as one of the most valuable and useful things they learned in the course. Moreover, some of them pointed out that they enjoyed learning from corpus searches. Isabel commented, “I can just type words and expressions. Then, I can see a lot of examples in front of me. With them, I can figure out how these words are used, and some structures are applied in sentences.” Some students also mentioned that they remember better the words and forms they learned by conducting corpus searches than they simply do the grammar exercise in the grammar book. A few students pointed out, “I think I can remember words and rules better when I do corpus searches with my partner than when I simply do exercises in the textbook.” One instructor, Joan also mentioned, “I found that corpus searches provided students to explore usage of words and rules they learned in the class and to discuss them with their partner. As a result, they have better understanding and memory for what they learned.”

Moreover, the instructors highlighted that corpus data provided them many authentic examples instantly for explaining difficult lexicogrammatical issues.

One instructor, Eric stated:

“when I use an online dictionary, I often feel that there are not enough examples; so, sometimes, I have to search many sentences in different dictionaries to explain difficult lexicogrammatical patterns. But, now, corpus data made my work much easier.”

The other instructor, Joan also mentioned that corpus data made difficult lexicogrammatical points easier for students to understand. She said she used to have great difficulty explaining phrasal verbs and finding out proper sentences in dictionaries to clearly explain their usages. Now, instead of having such difficulties, she was able to have students conduct corpus searches and go over various sentences to identify their different usages. After several discussion, the students seemed to gain a good understanding of the difference.

4.2.2. Challenges

The results of the data also revealed challenges in corpus-based lexicogrammar learning. The greatest challenges to the students was a large number of unknown words in the data. A number of students mentioned that they were frustrated by a large number of unknown vocabulary in sentences. When examined closely, this source of challenge was the low level of English language proficiency or lack of vocabulary knowledge of some of the students. Vivian stated, “I had to spend a great deal of time in looking for the meaning of unknown words; so, it was time consuming. Actually, this kind of exercise[corpus search] is difficult for me because of my low English skill.”

The other challenge to the students was how to effectively use concordance data to identify lexicogrammatical rules and patterns. Many students stated that they often felt overwhelmed by the large number examples generated by their searches and the time required for going over and analyzing the data. For instance, Joseph pointed out:

“When we typed expressions we were looking for, we could instantly see more than a hundred sentences. Actually, we did not have time to go

over all the examples, and we were not sure which ones we should look at first; so, it was confusing and time consuming.”

As analysed closely, this problem seemed to appear due to the inadequacy in the training given to the students about how to conduct corpus searches effectively and efficiently.

4.2.3. Suggestions for Future Corpus-Based Learning

The study has yielded some useful strategies and suggestions for the future corpus-based lexicogrammar learning. First of all, it is highly important that the instructor shows a lot of modeling for students' successful corpus search. Both students and instructors highlighted the need for such modeling based on their experiences in this course. When such modeling was lacking, it was found that the students felt a lot of difficulties. Even though modeling is extremely helpful, it alone is not enough for students to be a competent corpus users. Therefore, hands-on experiences based on the consistent teacher's modeling and “learning by doing” seem to be equally important. As some of the students pointed out, they did not have previous experiences of corpus searches, and they were not fully competent corpus-users yet. Thus, instructors' role based on a lot of modeling would be crucial for students' success in their own corpus search.

A second useful suggestion was to have students to begin search activities based on deductive learning before engaging them in inductive activities. It was because, in deductive activities, the students were asked to test the rules and expressions they have been taught. In such activities, all they needed to do is to find examples in corpus to conform or reject the rules and patterns they have learned. A deductive activity is much easier than an inductive one in which students have to go through many sentences to identify rules and patterns by themselves. Moreover, as instructors pointed out, deductive learning provides students more confidence than inductive searches.

Another effective strategy is to have students to conduct pair group corpus research assignments (see Appendix A) instead of individual ones. There are several benefits of having students work in pair searches. First of all, students are novice corpus users, and identifying lexicogrammatical rules and patterns is a

demanding task. As some of the students pointed out in an interview, a pair is generally more capable than an individual of handling corpus searches and completing corpus research assignments. In addition, corpus searches are time-consuming since students have to go through several examples to conform rules and patterns. Thus, when a pair share the work, it becomes easier. One student stated, "I think if I do this work alone, it would be very difficult because I don't know how to manage corpus well. But, when I do this with my partner, we could do our work easily and fast." Furthermore, working with a pair, students have an opportunity to learn from one another. One student mentioned:

"When I was first introduced to corpus searches, I felt overwhelmed because of too much information a search generated. But, when we started the work[corpus assignments] together, we could ask each other, help each other and learn each other. So, I felt much better and we could successfully complete our job."

One other useful suggestion is that corpus searches are much more effective for working on lexicogrammatical items that have multiple meanings or functions with high-frequency use than for working on items with a single meaning and low-frequency use. It is because a check or an explanation of the dictionary would be usually sufficient for students to understand their meaning and usage in the latter category. For the item in the former category, nevertheless, students need many examples to learn the various meanings and usages in authentic contexts. The instructors also mentioned that patterned expressions, such as collocations, phrasal verbs, and idioms, will be good sources of future corpus-based learning since corpus data instantly generate many authentic tokens or examples students otherwise cannot find out. By checking corpus data, study would often be able to figure out how these patterned expressions are used in contexts.

Final suggestion is to help student conduct corpus searches more effectively, it is a good idea to allow them to use dictionaries so they can check unknown words in the corpus and compare their corpus findings against dictionary descriptions. Many students and instructors stated that they used both dictionaries and corpus together, and it was useful to conduct corpus searches.

5. Conclusion

The present study examined to what extent the corpus-based lexicogrammatical approach is applicable and effective in the EFL classroom. The results of the study revealed that integrating corpus and lexicogrammar improved students' awareness of vocabulary, enhanced their command of lexicogrammatical rules and patterns, increased their appreciation of the importance of the context in language use, and promoted discovery learning, thereby, led to learning more interesting. The findings also showed some challenges of corpus-based lexicogrammatical instruction, such as a large number of unknown words due to students' low language proficiency and time consuming process for conforming rules and patterns. However, the results also indicated some useful strategies and suggestions for future corpus-based lexicogrammatical learning. That is, a lot of teachers' modeling, pair work, and deductive learning may improve students' ability in conducting corpus search reducing the difficulty students may face when searching and analyzing corpus data. At the same time, focus on lexicogrammatical items that have multiple meanings or functions with high-frequency use may lead learning more effective.

Based on the research findings, language instructors should be fully aware of the challenges they may face when using corpus-based lexicogrammar learning and should take them into consideration in designing and implementing corpus-based learning. They will need to decide to what extent they want to incorporate corpus-based learning according to students' language proficiency level and course objectives. Moreover, it is essential that instructors strive to lessen their students difficulties with corpus searches by good modeling and well-designed training.

The study also has several limitations. First, due to limited resource and time, the participants' self-assessment language proficiency was only used in this study. Therefore, it lacked a truly objective measurement of English proficiency level of the participants. Moreover, the present study did not include the analysis of students' computer lab worksheets due to the limited space. Thus, it is limited in examining closely the types of lexicogrammatical problems the students marked. Furthermore, not every student participated in the follow-up interview. Thus, the interview data did not cover all students'

perspectives on corpus-based grammar instruction. In addition, the study did not use language tests to measure the students' language achievement. Thus, in quantitative terms, it is difficult to measure the participants' objective learning gains. For future study, it will be helpful to conduct experimental research using a pre-test and post-test to gauge more accurately the effect of corpus-based language learning. At the same time, it would be very meaningful to analyze types of lexicogrammatical problems students noted to more accurately measure lexicogrammatical problems of students' language learning.

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Appendix A

◆ **Computer Lab Worksheet**

1. Write down the problems noted in your group
 - a. *boring and bored*
 - b.
2. Find a sentence on the corpus that uses the word/phrases in the desired way. Write the sentence below.
 - a. *I'm bored/The lecture was really boring.*
 - b.
3. Describe this word/phrases in used.
 - a. *사람이 지루할 때 bored/사물이 지루할 때 boring*
 - b.
4. Rewrite your sentences using the information that you learned from the corpus.
 - a. *I was bored because of boring lecture.*
 - b.

Note: Italicized phrases and sentences are examples from students' worksheet.

Appendix B

◆ **설문지**

❖ **Part 1**

1. 본인이 평가하는 본인의 영어 능력 상/중/하

❖ **Part 2**

다음의 내용을 읽고 각 문항에 맞는 답변을 선택하여 주세요.

1. 코퍼스 사용은 당신의 영어 학습에 얼마만큼 도움이 되었나요?
 1) 전혀 도움이 되지 않음 2) 약간 도움이 됨 3) 어느 정도 도움이 됨 4) 꽤 도움이 됨 5) 매우 도움이 됨
2. 코퍼스 사용을 통해 얼마나 많이 배웠나요?
 1) 전혀 배우지 못함 2) 매우 약간 배움 3) 약간 배움 4) 꽤 많이 배움 5) 매우 많이 배움
3. 코퍼스를 앞으로 영어 학습 시 활용하고자 합니까?
 1) 전혀 아니다 2) 아마도 아니다 3) 잘 모르겠다 4) 그렇다 5) 매우 그렇다.
4. 코퍼스를 통한 영어 학습 이전과 비교해, 단어와 문법의 관계에 관한 지금의 당신의 생각은 어떠합니까?
 1) 전혀 중요하지 않다 2) 별로 중요하지 않다 3) 예전과 동일하다 4) 중요하다 5) 매우 중요하다
5. 코퍼스를 통한 영어 학습 이전과 비교해, 영어단어나 문법 사용을 결정하는 데 있어 문맥의 중요성에 관한 지금의 당신의 생각은 어떠합니까?
 1) 전혀 중요하지 않다 2) 별로 중요하지 않다 3) 예전과 동일하다 4) 중요하다 5) 매우 중요하다

◆ **인터뷰 문항 (공통)**

1. 본 수업을 통해 배운 것 중 가장 유용한 것은 무엇입니까?
2. 지금까지 수업시간의 코퍼스서치를 통해 배운 것은 무엇입니까?
3. 코퍼스를 활용한 영어학습 중 어떤 부분이 가장 도움이 되었나요?
4. 코퍼스를 활용한 영어학습 중 어떤 부분이 가장 어려웠나요?
5. 앞으로 영어학습 시 코퍼스를 활용한다면 어떤 종류의 서치를 하고자 하나요?
6. 이번 학기 수업을 바탕으로 문법과 단어와의 관계에 대한 당신의 생각은 무엇입니까? (예: 서로 별개의 것이다/ 서로 깊은 연관성이 있다)
7. 이번 학기 수업을 바탕으로 영어사용 시 단어선택 및 문법구조를 선택하는데 있어 문맥의 역할은 무엇이라고 생각하나요? (예: 서로 별개의 것이다/ 서로 깊은 연관성이 있다)

◆ **추가된 교사용 인터뷰 문항**

8. 영어교사로서 코퍼스사용은 학생들에게 효과적이었나요? 만약 효과적이었다면 어떤 방식으로 유용했나요?
9. 코퍼스를 활용한 어휘문법교육에서 어려웠던 점은 무엇이었나요?
10. 앞으로 코퍼스를 활용한 영어교육에서 포함되었으면 하는 활동은 어떤 것입니까?

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