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Application of a Self-Annotated Transcription Task in an EFL Listening Context

Jae Hee Yang *

Hankuk University of Foreign Studies

Minjung Kang

Hankuk University of Foreign Studies

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ABSTRACT

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In the present study, types of listening errors and self-annotations produced by Korean L2 learners of English were investigated in order to gain valuable insight not only into the problems they commonly experience during listening but also into the decoding processes they go through in a more comprehensive way. Twenty undergraduate students participated in a uniquely developed 'self-annotated transcription (SAT) task' in which they were asked to transcribe English sentences and note any difficulties they faced during listening. The results suggest that the L2 listeners' errors can be categorized into 6 types (i.e., segmentation, substitution, omission, spelling, insertion and blank). Moreover, the results from an analysis of the self-annotation types demonstrate that the L2 learners in the present study resolved difficulties using a combination of both bottom-up and top-down information more often than either of these two types of information alone. The viability of this particular task in an EFL listening context was further explored by means of a post-task questionnaire with the students and an in-depth interview with the teacher, and the results indicate that the SAT task is readily applicable to L2 listening classes and can benefit both students and teachers.

I. INTRODUCTION

The relative scarcity of research into listening compared to the other major language skills of speaking, reading and writing has been well-acknowledged in the second language (L2) acquisition literature (e.g., El-dali, 2017; Graham, 2017). One of the reasons for this may be associated with the fact that listening comprehension cannot be directly examined, as it occurs inside the listeners' brains. Moreover, even in the case that a useful research method for demonstrating L2 listeners' mental processes could be developed, whether such a method could also be pedagogically suitable to various types of L2 listening contexts could still remain an important issue to many L2 listening

* First author: Jae Hee Yang, Corresponding author: Minjung Kang

Jae Hee Yang (PhD)
Department of English Linguistics, Hankuk University of Foreign Studies, 107, Imun-ro, Dongdaemun-gu, Seoul, 02450, Korea
Tel: (02) 2173-2261 / Email: jaehee@hufs.ac.kr

Minjung Kang (Lecturer)
Department of English-Korean Interpretation and Translation, Hankuk University of Foreign Studies, 81, Oedae-ro, Mohyeon-eup, Cheoin-gu, Yongin-si, Gyeonggi-do, 17035, Korea
Tel: (031) 330-4114 / Email: candicek@hufs.ac.kr

teachers and methodologists.

Bearing this point in mind, the present study aimed to find a way to study two lines of research that have received growing attention in the field of L2 listening. The first strand of research places its focus on the analysis of L2 listeners' committed errors, assuming that error investigation may reveal the sources of L2 listeners' problems in listening and their current mastery levels of target languages (Emadi & Arabmofrad, 2015; Field, 2008; W. Kim, 2002; C. Park, 2012). The second strand of research explores ways in which metacognitive strategies can be implemented in L2 listening classes (Chang & Chang, 2014; Goh & Taib, 2006; Siegel, 2013). In particular, the effectiveness of teaching metacognitive strategies such as integrating traditional listening activities (e.g., comprehension exercises) with different kinds of post-listening reflections (e.g., paired/group discussion about listening strategies students have tried out, or keeping journals of reflections on listening) has been tested and verified in a series of L2 listening studies (Chamot, 1995; Goh & Taib, 2006; Vandegrift, 2003, 2007).

Considering both the advantages of error investigation and the implementation of metacognitive strategies along with the aforementioned pedagogical issue together, a new type of transcription task was developed for the present study which employs a 'self-annotation technique,' a widely acknowledged metacognitive strategy used in the fields of both L1 and L2 writing (Charles, 1990; Reid, 1994; Storch & Tapper; 1996). Through this methodology, students are given the opportunity to practice using a metacognitive strategy by addressing their intentions, concerns, and positive aspects of their texts in the margins adjacent to the areas for which they want to receive teacher feedback, or at the end of a writing assignment. In turn, teachers give written feedback in response to the notes made by students.

For the self-annotated transcription (SAT) task used in the present study, Korean L2 learners of English enrolled in an academic listening class at a Korean university were asked not only to transcribe given recordings but also to describe in written form any difficulties they faced in arriving at the final version of their transcriptions. The teacher then provided comments both on the transcription errors and on the accompanying notes the students handed in. Based on the data collected through this task (i.e., L2 listeners' errors and notes), the present study explored and established types of errors and self-annotations commonly made by the L2 listeners. The results obtained via these examinations may provide a chance to better understand the problems L2 learners face and important aspects of the decoding processes they go through in listening comprehension (e.g., how students use metacognitive strategies during listening). Moreover, investigation of the students' and the teacher's perspectives towards the task by means of a post-task questionnaire with the students and an in-depth interview with the teacher can demonstrate how the SAT task can be applied in practice in a more detailed manner.

II. LITERATURE REVIEW

1. Error Analysis in L2 Listening

Error analysis has gained a great deal of attention in the field of second language acquisition since it illuminates areas of the problems students have and demonstrates the students' mastery levels of target languages (e.g., Corder, 1967; Dulay, Burt & Krashen, 1982). Despite these well-acknowledged advantages of error analysis, L2 listeners' errors have yet to be thoroughly investigated in various learning contexts, especially in comparison to other areas of language skills (Emadi & Arabmofrad, 2015).

Although comparably limited, some studies have found that L2 listeners tend to experience difficulty in separating an incoming speech stream into meaningful units (i.e., segmentation errors) and in recognizing familiar vocabulary items in the speech stream (i.e., substitution errors) (Goh, 2000; Graham, 2017). However, it should be noted that the attested error types in previous studies may not demonstrate the full range of potential errors, and that previous research may have been restricted by the methods used to collect errors or by the purposes of the studies.

In particular, Emadi and Arabmofrad (2015) report error data collected from six Iranian EFL listeners in their early twenties who were enrolled in a language institute through a dynamic assessment task. In this task, the teacher placed a pause between sections of an English sentence and asked students to repeat the section they just heard. Investigating the errors students made while producing such repetitions, the researchers found that the L2 students had difficulty with lengthy sentences, unfamiliar pronunciation, complex grammatical structures and unknown words. In interpreting these results, the particular task used should be taken into consideration, because repetition failures due to such problems do not necessarily entail failures in listening comprehension.

W. Kim (2002) examines English listening errors produced by seven Korean students attending the Graduate School of Interpretation in the completion of traditional transcription assignments. By observing the transcriptions submitted by these students, W. Kim (2002) illustrates seven different types of errors, with three being related to the position of the error in a word (i.e., word-initial, word-final, mid-word), and the rest to syllabification (e.g., one word into two, two/three words into one). Although W. Kim (2002) shows typical errors made by Korean L2 learners of English, the errors examined are limited to ones occurring in content words and could be interpreted according to differences in the phonetic/phonological rules or speech rhythm patterns of English and Korean.

Similarly, using a pseudo-word spelling task, C. Park (2012) found that the Korean elementary school students tended to replace English phonemes that do not correspond to Korean phonemes with other phonemes that are present in Korean. For instance, the English phonemes /f/ and /v/ were likely to be substituted by /p/ and /b/, respectively. C. Park (2012) reveals the potential sources of

errors, but due to the characteristics of the task, the error types mentioned in the study are primarily limited to ones that can be interpreted based on phonetic differences between L1 and L2.

On the other hand, Field (2008) collected errors from 224 Arabic L2 learners of English by implementing a paused transcription method in which subjects were asked to transcribe the last four or five words presented before pauses, which were inserted at irregular intervals. Examining their errors, he investigated the range of L2 learners' decoding strategies employed to deal with unfamiliar vocabulary items. For instance, the L2 listeners tried to represent the sounds they heard in an acceptable orthographic form (e.g., *bucher for butcher*), to replace a sound that was already familiar from their L1, or to place a known word regardless of the surrounding context. Although such a task allows us to examine L2 learners' behavior during decoding processes in detail, it might benefit teachers looking for new methodologies to test whether such research tools can also be used effectively as teaching methods.

Having mentioned that the full range of error types that L2 listeners make has yet to be demonstrated, the present study aims to establish criteria which can be used to categorize error types in a wider context without any particular restrictions. This study, which was carried out with twenty Korean L2 learners of English enrolled in an academic listening class, also sought to determine whether a tool used to collect listening errors can also be pedagogically applied to L2 listening classes by conducting a post-task questionnaire and an interview.

2. . Metacognitive Strategies in L2 Listening

A metacognitive strategy is "a management technique used by learners to control their learning through planning, checking, assessing and changing" (El-dali, 2017, p.17). Examples of metacognitive strategies in listening include keeping a journal of reflections and grouped or paired discussions about listening (Graham, 2017).

The L2 listening literature features a series of research projects which have tested and demonstrated the effectiveness of learning cycles that may increase L2 learners' metacognitive awareness during listening comprehension (e.g., Chamot, 1995; Goh & Taib, 2006; Vandegrift, 2003, 2007). For instance, Goh and Taib (2006) asked 10 Singaporean L2 learners of English between the ages of 11 and 12 first to complete a traditional comprehension exercise. The students were then asked to reflect individually on how they did on the listening comprehension exercise (i.e., a reflective exercise) and to discuss their thoughts in a group (i.e., discussion). By observing the notes students made while reflecting upon their performance, Goh and Taib (2006) conclude that, as the sessions proceeded, the students were able to use more kinds of listening strategies and became more confident in the use of these strategies. Moreover, based on a comparison of pre- and post-test scores, it is concluded that the metacognitive instruction helped the students improve their listening skills.

Taking a further step towards implementing a metacognitive strategy into L2 listening classes, Chang and Chang (2014) developed an online video-text self-dictation-generation task, combining a self-generation question approach with a traditional dictation task. In this task, while 48 undergraduate EFL students were exposed to YouTube clips, they were asked to perform a fill-in-the-blanks exercise and to type out notes onto the YouTube discussion board about their usage of listening strategies and any problems they encountered. Based on investigation of the students' statements, Chang and Chang (2014) conclude that the online task they developed can be used as an alternative to traditional dictation tasks, and can increase the metacognitive awareness of L2 listeners. Moreover, based on the focus group interview, the researchers claim that the students in their study more actively and voluntarily participated in the class.

Although a consensus on the effectiveness of teaching metacognitive listening strategies for successful listening has grown as illustrated above, the students' introspective comments were heavily related to factors affecting their listening performance such as voice clarity, speech rate, and overall atmosphere of the class, while not many depicted the listeners' decoding processes.

Concerning the listeners' decoding processes, several researchers have also shown interest in the direct teaching of top-down and bottom-up strategies in L2 listening classes (Field, 2003, 2008; Graham & Macaro, 2008; Tsui & Fullilove, 1998).

In particular, Field (2003) highlights the importance of bottom-up processes and introduces a number of exercises which can increase the sensitivity of learners to phonetic or phonological features observed in continuous speech, such as reduced forms, elision, and assimilation. On the other hand, in an investigation of how students with higher proficiency scores differ from students with lower proficiency scores in the use of bottom-up and top-down strategies, Tsui and Fullilove (1998) found that the former were better able to combine both bottom-up and top-down strategies during listening. In another study, Graham and Macaro (2008) claim that listening strategy interventions between the two types of information are likely to be more successful than relying on only one strategy.

Having said that the claims regarding the two processes are contradictory as stated above, revealing the ways in which learners make use of both bottom-up and top-down strategies during listening comprehension can be essential for understanding L2 listeners' decoding processes. Field (2008) also points out that whether a semantically plausible word is substituted for an unfamiliar string of sounds (i.e., use of top-down information) or an approximate phonological match is chosen even if the surrounding context is ignored (i.e., use of bottom-up information) should be statistically investigated in future studies.

As being the first study which to employ an SAT task in an L2 listening context, the current study aims to find a way to help L2 listeners use a metacognitive strategy (i.e., reflection) to solve difficulties faced during listening

by demonstrating a full range of self-annotation types. Furthermore, the present study explores the decoding processes L2 listeners go through during listening (e.g., how L2 listeners make use of bottom-up and top-down information during listening comprehension).

III. THE PRESENT STUDY

In the current study, Korean L2 listeners' errors and self-annotations through a uniquely developed SAT task are first observed and classified into appropriate types, and the implications of these findings are discussed. Second, the students' and the teacher's attitudes toward the methodology gathered through a post-task questionnaire to the students and a face-to-face interview with the teacher are presented in order to test the viability of using the task in the L2 listening context. The specific research questions of the study are as follows:

1) In the SAT task, what kinds of errors are commonly made by Korean L2 learners of English?
2) What kinds of self-annotations do the learners make in the SAT task?
3) What are the attitudes of the students and the teacher towards the SAT task?

1. Method

1) Subjects

Twenty Korean L2 learners of English (14 females, 6 males) participated in this study. All subjects were non-English-major undergraduate students (sophomores to seniors) enrolled in the same three-hour-a-week academic English listening course provided at Hankuk University of Foreign Studies for a fifteen-week semester. The course was designed to provide students with the opportunity to develop a deeper understanding both of English and of academic topics being dealt with at the university level. The main textbook for the course was the fourth edition of *Contemporary Topics 3: 21st Century Skills for Academic Success* published by Pearson Education in 2017. The age of the subjects ranged from 21 to 26 (M = 23.25, SD = 1.69). Their mean accuracy on a test designed to check English proficiency[1] was 19.50 (SD = 3.97, Range = 14-28) out of thirty questions. Seventeen students reported having no experience living overseas, while three reported that they had lived in an English-speaking country for over 12 months. All students were naïve to the purpose of the research until they were informed of it during the final week of the semester. The teacher was a Korean instructor who completed her Ph.D. coursework in English Linguistics. She had taught the same listening course to undergraduate students for three consecutive semesters, but had never incorporated an SAT task in her class before. Before the semester began, the teacher fully understood all the details of the task. However, she had no previous understanding of the criteria of the errors and self-annotations since no previous studies had yet shown the full range of L2 listeners' errors, and the SAT task was first employed in an EFL listening context in the current study.[2]

2) Materials

Fifty short sentences were extracted from the practice book for the TOEFL listening section (PBT version).[3] For a total of five biweekly assignments, a set of ten different sentences were allocated into five different audio files, with one file per assignment. The mean number of words each sentence contained was 9.18 (SD = 3.36, *Range* = 4-17 words).[4] The level of difficulty and the delivery speed were considered to be similar across all of the files since they were chosen from one source and the voice actors were the same across all of the files.

As for the post-task questionnaire with the students and the interview with the teacher, the questions were prepared by modifying the lists of questions provided in L2 writing studies which employed a self-annotation technique (Cresswell, 2000; Reid, 1994; Storch & Tapper, 1996).

3) Procedures

In the first week of the course, all students filled out a questionnaire about their language learning background and took an English proficiency test. The entire procedure took about thirty minutes. At the end of class in the second week of the course, the teacher introduced the SAT task so that the students could be trained on how to use the self-annotation technique in their listening assignments. After transcription of each sentence, the students were asked to underline the parts that they were unsure of, had problems with, or had questions about, and then to express in the language of their choice (i.e., either English or Korean) why

[1] The English proficiency test employed for this research was obtained from the University of New Hampshire with permission. The complete version of the test can be provided upon request.

[2] The teacher and the first author of the present paper are the same person.

[3] See Appendix for a full list of the sentences used. Materials were chosen from a different source other than the textbook for the course. This was to avoid any repetition with the materials which would be dealt with in class. Repetition was taken as a factor that might affect not only the results of the current study but also in-class participation.

[4] There were statistically significant differences in the word counts between the assignments ($F(4,45) = 3.393$, $p = .02$). Post-hoc comparisons using the Scheffe test revealed that there was a significant difference in the word counts between assignments 2 and 4.

they had underlined these parts.[5] The entire explanation of the SAT task took no longer than fifteen minutes. On the same week the task was explained (i.e., Week 2), the students were given the first assignment. The students handed in their assignments a week later (i.e., Week 3) and received written comments from the teacher the following week (i.e., Week 4).[6] On the same day the students received their assignments back, the teacher explained to the class common errors observed across students. She also shared some important comments regarding useful listening strategies such as top-down and bottom-up strategies with the whole class. Then, a new assignment was given to the students. This three-week cycle started in Week 2 and finished on Week 13, when the fourth and final assignment was returned. On Week 14, a questionnaire was administered to all the students in order to gather their opinions about the SAT task. In addition, an interview was carried out by the corresponding author with the teacher in order to examine her first experience of incorporating an SAT task into her class. The interview took place after the semester ended and lasted about 45 minutes.

4) Data Analysis

A total of 950 sentences (19 students×5 assignments×10 sentences)[7] were examined by each of the authors to identify all instances of errors and self-annotations. As for error types, each of the authors first coded the data in Task 1 initially following individually developed sets of error types. The authors then compared the codings and established common criteria for the error types.[8] The rest of the tasks were analyzed following the error types established. The percent agreement for the two authors was 94.5%, and the mismatched codings were discussed until a consensus was reached for all items. The categories for self-annotations were classified following the same procedure used to identify error type. The percent of agreement for the two raters was 96.3% in this case. Additionally, the students' answers from the post-test questionnaires and the transcript of the in-depth interview conducted with the teacher were also scrutinized for further analysis.

2. Results

1) Types of Errors

An analysis of the data used in the current study showed that the Korean L2 students made errors which can be classified into six types: substitution, segmentation, omission, insertion, spelling and blank. Substitution errors refer to cases in which students replaced one word in a sentence with a non-target word, possibly because the word was misidentified, as demonstrated in (1a). Segmentation errors are cases in which students incorrectly split or merged the sounds of a series of words. This type of error included two situations, one in which a single target word was syllabified into multiple words, and another in which multiple words were merged into one, as illustrated in (1b) and (1c), respectively.

(1a) Substitution: *floral* instead of *floor* in T*he beautiful floor lamp really caught my eye.*
(Student 5, Sentence 4 in Assignment 1)

(1b) Segmentation: *to wish in* instead of *tuition* in *Kate works part time to pay her college tuition, doesn't she?*
(Student 12, Sentence 3 in Assignment 1)

(1c) Segmentation: *ferries* instead of *fare is* in *The train fare is reduced after five.*
(Student 1, Sentence 8 in Assignment 4)

Omission errors account for cases in which students skipped a word (or a portion of one) that must appear in a well-heard sentence, as exemplified in (1d). Differing from omission errors, insertion errors indicate cases in which students added unnecessary parts to the target word or an unnecessary word to the sentence, as shown in (1e).

(1d) Omission: *absent-mind* instead of *absent-minded* in *How absent-minded he is?*
(Student 12, Sentence 10 in Assignment 4)

(1e) Insertion: *days* instead of *day* in *Mandy fell asleep at 7pm exhausted from a full day of skiing.*
(Student 13, Sentence 4 in Assignment 3)

In making spelling errors, students misspelled target words, and the words they wrote are not present in dictionary. It was not difficult to differentiate a known word that has been mis-spelled from an attempt at transcribing an unknown word in an acceptable orthography. Finally, with blank errors, students merely marked a set of parentheses or left a question mark in the place of a target item. Blank errors indicate that students recognized that a word should be placed in the marked location but that they gave up on identifying it. See (1f) and (1g) below for examples of spelling and blank errors, respectively.

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[5] This decision was made because less proficient students might not be able to verbalize their mental processes in their L2. In fact, the language all students chose for their self-annotations was their first language, Korean.

[6] An example of a teacher comment is as follows: *Compare the correct answer 'he said he' and the answer you wrote 'he/'s sad/y'. Notice that you did not miss the sounds that consist of the sounds of the correct answer. Try to resyllabify the sounds to find the correct word boundary. Do not assume that you failed to retrieve the target word thinking it is a word you may not know.*

[7] All data obtained from student 18 were removed for further analysis since the student did not hand in his fourth assignment.

[8] This procedure was necessary since the full range of L2 listeners' errors was unavailable in the relevant literature.

(1f) Spelling: *pensil* instead of *pencil* in *We bought her a new pencil sharpener.*
(Student 11, Sentence 1 in Assignment 3)

(1g) Blank: *been? a lot* in *She's been through a lot lately.*
(Student 14, Sentence 10 in Assignment 2)

The results of error coding based on the six types explained above are summarized below in Table 1, along with their frequencies and percentages. Each appearance of an error was counted as one.

TABLE 1
Types of Errors and Their Frequency

Types of errors	Frequency(%)					Total(%)
	Task 1	Task 2	Task 3	Task 4	Task 5	
Substitution	95(46.6)	76(51.4)	59(36.0)	31(26.3)	29(27.9)	290(39.4)
Segmentation	44(21.5)	19(12.8)	32(19.5)	36(30.5)	27(26.0)	158(21.5)
Omission	12(5.9)	23(15.5)	38(23.2)	36(30.5)	21(20.2)	130(17.7)
Insertion	8(3.9)	6(4.1)	4(2.4)	11(9.3)	4(3.8)	33(4.5)
Spelling	40(19.6)	20(13.5)	29(17.7)	3(2.5)	18(17.3)	110(14.9)
Blank	5(2.5)	4(2.7)	2(1.2)	1(0.8)	5(4.8)	17(2.3)
Total	204	148	164	118	104	736

As shown in Table 1 above, substitution was the most frequently-appearing error type (39.4%), followed in descending order by segmentation (21.5%), omission (17.7%), spelling (14.9%), insertion (4.5%), and blank (2.3%). The top four error types (i.e., substitution, segmentation, omission, and spelling) account for 93.5% of all errors, and this pattern was largely observed across all five assignments.[9] Further analysis of each error type revealed that, among approximately 60% of the substitution errors, the substituted words shared some sounds with the correct answers. As for omission errors, 43.8% of the cases were accounted for by deletion of function words, while 25.4% consisted of missing word-final consonants.

2) Types of Self-annotations

The nineteen students who participated in the study made a total of 615 self-annotations, with a mean of 32.37 self-annotations per student (*SD* = 15.53, *Range* = 9-58).[10] Analysis showed that the self-annotations made by the Korean L2 listeners can be sorted into six different types: bottom-up, top-down, both, difficulty/uncertainty, self-study and question. While the first three categories reveal the type of information the students preferably used during their decoding processes, the other categories indicate the degree of difficulty or uncertainty the students felt while listening (i.e., difficulty/uncertainty) or the post-listening activities the students tried out (i.e., self-study or question). All types of self-annotations can be considered part of a reflection activity which increases the metacognitive awareness of the L2 listeners.

The bottom-up type includes cases such as that shown in (2a) below in which students reported the use of phonetic or phonological information in solving the difficulties they faced. In contrast, the type of top-down includes cases of students reporting the use of grammatical knowledge or contextual information to compensate for what they could not catch, as illustrated by the example in (2b). The type of both indicates that both bottom-up and top-down information were reported to be used in the students' self-annotations. Notes from this type often show which type of information is selected when the two types of information conflict. See (2c) for an example of such cases.

(2a) Bottom-up (Student 8, Sentence 5 in Assignment 3)
Correct sentence - *He spoke so badly that everyone got up and left.*
Student's answer - identical with the correct sentence
Student's note - At first, I wasn't so sure about the 'got up and left' part. Later, I heard the /t/ sound in the word 'left,' but I'm still unsure about the 'got up' part.[11]

(2b) Top-down (Student 2, Sentence 10 in Assignment 1)
Correct sentence - *It was Claire not Joe who liked the play.*
Student's answer - identical with the correct sentence
Student's note - Considering the structure of the sentence, I thought 'who' should be present after 'Joe' for the sentence to be grammatically correct, so I added it even though I was not able to hear it.

(2c) Both (Student 3, Sentence 10 in Assignment 2)
Correct sentence - *She's been through a lot lately.*
Student's answer - *She's been thrown a lot lately.*
Student's note - The sound I thought I heard was similar to the word 'threw,' but the sentence sounded ungrammatical with 'threw' in it. Thus, I substituted the word 'threw' with 'thrown.'

The type difficulty/uncertainty covers cases in which students expressed how difficult it was for them to write down a sentence while listening, or how unsure they felt about their final answers. Cases in which students made notes on words or expressions they looked up in the dictionary or reported any sound patterns they observed fall into the type of self-study. Finally, the question type includes cases in which students asked questions about the structure or meaning of a sentence. See (2d)-(2f) below

[9] It should be noted that the top four error types in Assignment 4 include insertion errors instead of spelling errors.

[10] Student 2, who reported having lived overseas for 60 months, made only 9 self-annotations throughout the assignments.

[11] The students originally wrote their self-annotations in Korean. The notes presented from (2a) to (2e) have been translated into English, keeping the translation as close to the original meaning as possible.

for examples of the difficulty/uncertainty, self-study and question self-annotation categories, respectively.

(2d) Difficulty/Uncertainty
I listened to the underlined part more than ten times but I wasn't able to fill it in.
(Student 8, Sentence 6 in Assignment 1)

(2e) Self-study
I searched for *Wouldn't you say?* on the Internet to find out the meaning of the expression, and I figured out that it is used to ask someone if he or she agrees with what the speaker said (similar expression: Don't you think?)
(Student 13, Sentence 9 in Assignment 1)

I learned that the pronunciation of the word 'exhibit' is different from what I used to pronounce (ikshibit).
(Student 1, Sentence 7 in Assignment 2)

(2f) Question: What does this sentence mean in Korean?
(Assignment 5, Sentence 7, Student 11)

Table 2 below shows the results of the coded self-annotation categories explained above, along with their frequencies and percentages.

TABLE 2
Types of Self-Annotations and Their Frquecy

Types of self-annotations	Frequency(%)					Total(%)
	Task 1	Task 2	Task 3	Task 4	Task 5	
Bottom-up	27(19.6)	17(13.3)	26(18.8)	20(17.5)	21(21.6)	111(18.0)
Top-down	6(4.3)	6(4.7)	10(7.2)	13(11.4)	4(4.1)	39(6.3)
Both	43(31.2)	33(25.8)	31(22.5)	26(22.8)	14(14.4)	147(23.9)
Difficulty/ Uncertainty	30(21.7)	42(32.8)	30(21.7)	25(21.9)	13(13.4)	140(22.8)
Self-study	30(21.7)	29(22.7)	40(29.0)	27(23.7)	41(42.5)	167(27.2)
Question	2(1.4)	0(0.0)	1(0.7)	2(1.8)	4(4.1)	9(1.5)
Others[12]	0(0.0)	1(0.8)	0(0.0)	1(0.9)	0(0.0)	2(0.3)
Total	138	128	138	114	97	615

As seen in Table 2 above, the students reported resolving difficulties using a combination of both bottom-up and top-down information more frequently than either of these two types of information individually (23.9% vs. 18.0% and 6.3%). Regarding introspection activities, the most-frequent self-annotation type was self-study (27.12%), followed by difficulty/uncertainty (22.8%), and question (1.5%).

3) The Students' and the Teacher's Perspectives on the SAT Task

Concerning the students' perspectives on the SAT task, a questionnaire consisting of the following questions presented in Table 3 was administered to the students.

TABLE 3
Questions on the Post-Task Questionnaire

1. How long did it take for you to complete one assignment on average?
2. Have you ever experienced this kind of listening activity before?
   YES/NO
   If yes, write about your experience in detail and how it was similar to or different from the cur-rent activity.
3. Was it difficult for you to understand what the self-annotation technique is and to apply it during or after listening? Circle a number on the 5-point scale.
   5: VERY MUCH 4: SOMEWHAT 3: UNDECIDED
   2: NOT REALLY 1: NOT AT ALL
   If so, specify the difficulties.
4. How actively did you participate in and engage with the assignments? Circle a number on the 5-point scale.
   5: VERY MUCH 4: SOMEWHAT 3: UNDECIDED
   2: NOT REALLY 1: NOT AT ALL
6. What did you do after receiving the teacher's comments?

Analysis of the students' responses to the questionnaire showed that the majority of the students experienced no particular difficulty in understanding the self-annotation technique and applying it while performing the task (*M* = 1.45, *SD* = 0.8, *Range* = 1-4; Question 3), even though none of them reported that they had been introduced to or experienced similar kinds of activities before (Question 2). The mean participation rating obtained from Question 4 was 4.6 on the five-point Likert Scale *(SD* = 0.50, *Range* = 4-5). The mean period of time the students reported to spend to complete one assignment was about 30 minutes (*M* = 27.25, *SD* = 10.45, *Range* = 15-40; Question 1). When the students were asked what they did after receiving the teacher's comments (Question 5), they reported that they: (i) first read the comments (all students); (ii) tried to apply the comments in the next assignment (70% of the students); (iii) identified their own weaknesses and figured out the areas they thought they could make improvements in based on the comments (50% of the students); and (iv) listened to the sentences they made errors on again or practiced pronunciation (15% of the students). Through analysis of the students' overall opinions about this SAT ask (Question 6), it was found that the majority of the students had a positive attitude towards the task and appreciated having someone to ask for help in concretely figuring out their weaknesses and error patterns in listening. For instance, one student wrote "*It was great to be informed about the areas I constantly make mistakes in and about what to do to overcome such problems.*" The analysis of the responses for Question 6 also demonstrated that 35% of the students asked for an increase in the number of sentences in each assignment or in the total number of assignments, while the rest said they received an appropriate amount of assignments at the right difficulty level.

To summarize, although there were differences in preferences toward certain aspects of the task, such as the difficulty level and the number of assignments, the majority of the students expressed a positive attitude about using the SAT task for their assignments and appreciated having been given the

[12] Cases which could not be categorized into one of the five categories explained so far fall into the type of others.

chance to explain what happened during and after listening and receiving feedback and guidance from the teacher.

After the semester ended, the teacher was interviewed using the questions shown in Table 4.

TABLE 4
Interview Questions

1. What is your overall opinion on using the self-annotation technique for listening assignments?
2. Are you willing to use this technique in other listening courses? If so, why?
3. Are you willing to recommend that other listening teachers use this technique? If so, why?
4. How long did it take for you to give feedback on twenty students' assignments? Was it time-consuming?
5. What are your concerns about using this technique? What could be improved?

Overall, the teacher commented favorably on the SAT task, saying that she said she would like to use it for her future classes and would highly recommend it to other teachers. She explained several reasons for this positive evaluation. First, the self-annotations allowed her to understand the listening abilities of each student more precisely, and based on such information she was able to teach the class in a more customized way, referring back to their errors or self-annotations in class.[13] Second, the task allowed her to identify the areas in which the students had the most problems, and to help them by directly referring to the errors they had made. Third, the teacher felt more intimacy with the students and thought they were more engaged in the class as well. She added "*these advantages would have not been gained if the students had been assigned simple dictation assignments without self-annotations or tested only through comprehension questions.*" As for her concerns regarding the task, the teacher mentioned that the assignments might not have been useful for all students, especially those whose proficiency levels were high, since she felt like they made fewer errors and self-annotations.[14] She also added that she had to spend 5-6 hours per assignment to give comments to twenty students. She said it was worth the time and effort, but it was not easy to keep her workload manageable during the semester.

IV. DISCUSSION AND CONCLUSION

Implementing a uniquely designed SAT task in an EFL academic listening class in the form of assignments, the present study tried to demonstrate the full range of common error types and self-annotation patterns of Korean L2 learners of English. The advantages obtained from using this particular task were illustrated through a questionnaire administered to the students and an in-depth interview conducted with the teacher.

Regarding the first research question, six types of errors were found in the sentences transcribed by the students (i.e., substitution, segmentation, omission, spelling, insertion and blank). Differing from previous studies such as W. Kim (2002) and C. Park (2012), the present study did not limit the errors to those can be explained in terms of phonetic or phonological aspects. Of the six types of errors, the four most common types were substitution, segmentation, omission, and spelling errors, which together accounted for 93.5% of all errors. This implies that the errors made by the Korean L2 students who participated in the present study were able to be classified with a significantly low number of error types.

Further analysis of each error type provided valuable insights into the current level of the Korean L2 students' listening skills as well. Concerning substitution errors, the students were most likely to misidentify the target word, but 60% of the substituted incorrect answers shared phonemes or syllables with the correct answers. This indicates that the listeners had a certain degree of sensitivity to the phonetic/phonological information of the recorded words, supporting the findings of Field (2008), who shows that L2 learners made an attempt to represent the input in an acceptable orthographic form while preserving the sounds they heard. Moreover, the segmentation errors demonstrate that the Korean L2 students in the present study often failed to correctly syllabify the chunks of sounds into existing words or words that fit the context. This finding is in line with the results reported by Goh (2000), who found that L2 learners in general made segmentation errors while listening to the target language because it was challenging for them to recognize where word boundaries fall. In a similar vein, further analysis of the omission errors in the current data demonstrates that the Korean L2 students were less sensitive to unstressed sounds (e.g., function words or consonants in word-final position) compared to stressed sounds.

One of the interesting findings of the current study regarding the current level of the L2 listeners was an unexpectedly high number of spelling errors. Although C. Park (2012) notes that Korean learners tend to substitute target phonemes with phonemes having similar places of articulation, considering that the spelling errors made by the university-level Korean EFL students of this study were not limited only to phonemic issues (e.g., *waiter* as *waiiter*, *college* as *collage*), it can be said that they were seemingly less aware of using incorrect spellings. This may be partially related to the educational environment in Korea,

[13] For instance, after acknowledging the different listening abilities of the individual students through written interaction in the first assignment, she decided to let the students access the Internet with their cell phones to listen to the audio/video clips used in the lecture at their own pace.

[14] The results of the Pearson correlation showed that there was a significant negative association between the proficiency scores and the number of errors (r = -.608, p = .006, n = 19), while there was a marginally significant negative correlation in the proficiency scores and the number of self-annotations (r = -.431, p = .065, n = 19).

where the English section of Korea's annual college entrance exam is a reading-based test which does not require students to spell out words for themselves.

Through an investigation of errors using an SAT task, the current study has demonstrated that the task can be used to collect error data from L2 listeners without restriction to phonetic or phonological phenomenon. The present study has also contributed data from Korean L2 listeners to the field of inquiry so that teachers can gain a better understanding of L2 learners' levels of listening abilities. In future studies, it might be possible to compare error type differences between students of different proficiency levels using this particular task.

The second research question concerned the investigation of types of self-annotations made by the Korean L2 learners. According to the self-annotation analysis, it was found that the L2 listeners in the present study made use of both top-down and bottom-up information together in resolving difficulties faced during listening more often than either of these two types of information alone. This finding implies that the Korean L2 learners in the current study were fairly proficient at making use of all the information available to them to restore unheard segments. In particular, fewer corrections were made based only on top-down information compared to the cases of corrections made on the basis of bottom-up information. This suggests that the participants took advantage of at least some phonetic/phonological cues to restore missing segments and words, as restoration based solely on grammatical knowledge or contextual information without reference to phonetic/phonological cues was rarely observed.

Although the number of participants may not have been adequate to make any universal generalizations, analysis of the self-annotations made by the L2 learners in the current study also revealed what introspective processes they went through during and after listening. In particular, the presence of self-study type demonstrated that the L2 learners were actively engaging themselves in learning. Moreover, by noting uncertainty or difficulty in their self-annotations, the students took the chance to express their own drawbacks and receive feedback from the teacher in a more customized way.

Through the analysis of self-annotations, the types of information the L2 listeners used to deal with the difficulties they faced were observed. As Field (2008) suggests, individual differences in the use of such information (e.g., different preferences for the use of top-down information) could be further investigated in future studies.

The third research question dealt with examination of the perspectives of the students and the teacher toward the implementation of the self-annotation technique into the listening assignments. Analysis of the questionnaire and interview responses demonstrates that both the students and the teacher benefited from using the SAT task. The students praised the fact that the SAT task made it easier for them not only to figure out their areas of weakness and error patterns but also to understand what they need to do next to improve their listening skills. That is, the SAT task raised the students' awareness of metacognitive strategies in diagnosing their problems and in examining their thinking processes. The teacher also reported several advantages of providing students with the task. According to the teacher, the task helped her make more direct and informative comments. Moreover, she mentioned that the task enhanced the overall atmosphere of the classroom in a more encouraging manner. This indicates that, as L2 students perform the SAT, they are likely to see themselves as active problem-solvers and thinkers, and this may affect the learning climate of the classroom.

Despite these advantages to be gained from the SAT task, several suggestions made by the students and the teacher should be taken into consideration for this task to be employed more effectively in other listening classes. Although the majority of the students expressed positive attitudes about using the task, there existed differences in personal preferences regarding the appropriate number of assignments and the difficulty level of the sentences in the recordings, with 35% of students mentioning that they were willing to do more assignments with longer sentences. Thus, if a class consists of students from a range of different proficiency levels, the difficulty levels of assignment materials should be chosen with greater care. Giving learners the option to choose for themselves by preparing recordings of at least two different difficulty levels may solve the problems regarding this difference in individual preferences. However, the teachers' workload must be considered in such cases. Another noteworthy suggestion that could be applied to other listening classes is that, on the day the assignments are returned back to the students, the teacher should share with the class not only common errors observed in the assignments but also useful comments on listening strategies, as the teacher did in the present study. By doing this, the teacher was able to refer back to the shared information whenever needed to explain class materials, and even students who did not have the chance to receive such feedback on their previous assignments showed evidence of applying the shared information in later assignments.

To conclude, the SAT task may not be applicable to every aspect of listening courses in EFL contexts. However, this unique type of transcription task showed promise in being employed as a form of assignment in a way that can satisfy both students and teachers. Moreover, from the data obtained through this task, investigations of both L2 listeners' errors and their self-annotations were made possible. To confirm and expand the findings of the present research, further studies could be carried out to investigate whether the process of making self-annotations affects performance in listening comprehension. Investigation with different groups of L2 learners at various levels over longer periods of time may also be necessary to better understand the learning situations most appropriate for this task.

REFERENCES

Chamot, A. U. (1995). Learning strategies and listening comprehension. In D. Mendelsohn & J. Rubin (Eds.), *A guide for the teaching of second language listening* (pp. 13-30). San Diego: Dominie Press.

Chang, C., & Chang, C. (2014). Developing students' listening metacognitive strategies using online video-text self-dictation-generation learning activity. *The EUROCALL Review, 22*(1), 3-19.

Charles, M. (1990). Responding to problems in written English using a student self-monitoring technique. *ELT Journal, 44*(4), 286-293.

Corder, S. P. (1967). The significance of learners' errors. *International Review of Applied Linguistics in Language Teaching, 5*(4), 161-170.

Cresswell, A. (2000). Self-monitoring in student writing: Developing learner responsibility. *ELT Journal, 54*(3), 235-244.

Dulay, H. C., Burt, M. K., & Krashen, S. D. (1982). *Language two*. New York: Oxford University Press.

El-dali, M. (2017). L2 listening comprehension: Is it a language problem or listening problem? *English Linguistics Research, 6*(1), 24-37.

Emadi, M., & Arabmofrad, A. (2015). Individual dynamic assessment: An analysis of Iranian EFL learners' listening comprehension errors. *Theory and Practice in Language Studies, 5*(12), 2599-2605.

Field, J. (2003). Promoting perception: Lexical segmentation in L2 listening. *ELT Journal, 57*(4), 325-334.

Field, J. (2008). The L2 listener: Type or individual? *RCEAL Working papers in English and Applied Linguistics in Honour of Gillian Brown, 12,* 13-32.

Goh, C. (2000). A cognitive perspective on language learners' listening comprehension problems. *System, 28*(1), 55-75.

Goh, C., & Taib,Y. (2006). Metacognitive instruction in listening for young learners. *ELT Journal, 60*(3), 222-232.

Graham, S. (2017). Research into practice: Listening strategies in an instructed classroom setting. *Language Teaching, 50*(1), 107-119.

Graham, S., & Macaro, E. (2008). Strategy instruction in listening for lower intermediate learners of French. *Language Learning, 58*(4), 747-783.

Kim, Won-bo. (2002). Efficient listening teaching strategies through the analysis of English listening errors. *Modern English Education, 3*(2), 3-22.

Park, Chaehee. (2012). English L2 spelling errors phonologically absent in L1 but present in L2. *The New Korean Journal of English Language and Literature, 54*(5), 271-288.

Reid, J. (1994). Responding to ESL students' texts: The myths of appropriation. *TESOL Quarterly, 28*(2), 273-292.

Siegel, J. (2013). Second language learners' perceptions of listening strategy instruction. *Innovation in Language Learning and Teaching, 7*(1), 1-18.

Storch, N., & Tapper, J. (1996). Patterns of NNS annotations when identifying areas of concern in their writing. *System, 24*(3), 323-336.

Tsui, A. B. M., & Fullilove, J. (1998). Bottom-up or top-down processing as a discriminator of L2 listening performance. *Applied Linguistics, 19*(4), 432-451.

Vandegrift, L. (2003). Orchestrating strategy use: Toward a model of the skilled second language listener. *Language Learning, 53*(3), 463-496.

Vandegrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching, 30*(3), 191-210.

APPENDIX

Materials for the SAT Task

[Assignment 1]

1. The waiter brought John the silverware, a napkin, and a glass of water.
2. He found cooking a great pleasure.
3. Kate works part time to pay her college tuition, doesn't she?
4. That beautiful floor lamp really caught my eye.
5. He didn't care for his new tennis racket.
6. Do you think he wanted to walk all the way to the park.
7. You like pizza? But it has cheese on it.
8. The final curtain fell after the singer's solo.
9. Looks like rain, wouldn't you say?
10. It was Claire not Joe who liked the play.

[Assignment 2]

1. Julie had better go to the supermarket right away because your sister is coming for lunch.
2. It seems as though we've known each other for a long time instead of just two weeks.
3. I found that poem hard to understand, didn't you?
4. This trip will be shorter on the subway than on the bus.
5. The high winds resulted in heavy damage to trees and power lines.
6. Why don't we move the chairs inside?
7. His art was appreciated by the younger people at the exhibit.
8. I bought this coat when I was abroad.
9. After the speech came a grief question and answer session.
10. She's been through a lot lately.

[Assignment 3]

1. We bought her a new pencil sharpener.
2. As soon as I arrived, the movie began.
3. What a great year you've had.
4. Mandy fell asleep at 7pm exhausted from a full day of skiing.
5. He spoke so badly that everyone got up and left.
6. At first, many people didn't like that kind of music. But, after a while it caught on.
7. Mary was disappointed in her new secretary.
8. Shirley's place is always tidy.
9. Becky will fill you in on what happened at the last meeting.
10. He said he was full and excused himself from the table.

[Assignment 4]

1. The sun shone brightly.
2. She went to the store for some milk.
3. They asked if we'd stay.
4. I couldn't find my umbrella this morning.
5. My pen's out of ink again.
6. The students completely filled the classroom.
7. Almost everyone had finished the book.
8. The train fare is reduced after 5.
9. Have the driver let you off at the intersection.
10. How absent-minded he is.

[Assignment 5]

1. What an exciting race!
2. I'm sure I'll finish the report on time, probably by noon tomorrow.
3. We can't hear the singer very well from the balcony.
4. Why not ask the librarian to help you find the references?
5. It may look as though I'm ready for this trip, but I haven't even packed my suitcase.
6. Cathy and Elizabeth work side by side in the chemistry lab.
7. It feels good to be home again.
8. Presidential elections are held every four years in the United States, aren't they?
9. Michael's success in business has made him a millionaire.
10. Only occasionally do I have talk in my sleep.