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Aural Discrimination Difficulties with English Consonantal Phonemes Among Korean University EFL Learners

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Introduction

A commonly observed difference between a first and second language is that in the case of the former, few differences in ability exist among speakers in the areas of correct aural discrimination and production, while in the latter great variation instead exists. This difference becomes even more noticeable when the second language is learned in an environment in which the learner has little available contact with the second language, such as in the EFL environment of Korea. Based on this observation, the question may be posed as to whether or not observed differences in aural discrimination and production abilities are actually important to the second language learner, in this case, the Korean EFL learner. If so, it would seem important to ascertain which among the English phonemes are most problematic in terms of aural discrimination and production for Korean EFL learners. Additionally, it would be useful to discuss teaching methods which most effectively allow teachers to develop these aural discrimination and production abilities in their students.

Opinion exists on both sides of the issue of whether or not differences in aural discrimination and production abilities are important to the

second language learner. According to Pennington and Richards (1986) communicative methodologies have begun to regard the teaching of production skills as limited in importance. Examples of this tendency are Total Physical Response and the Natural Approach in which the need for accurate production in the early stages is deemphasized. Chastain(1976) agrees, stating that perfect production, and by extension, perfect aural discrimination are not necessary for communication. Furthermore, Brumfit(1984) states that the teaching of production is more of a teacher's exercise in linguistics rather than a real help to the learner.

On the other side of the issue is evidence which states that correct aural discrimination and production are viewed by native speakers as important. Guiora, et. al. (1972) suggest that production is the most obvious manifestation of a second language learner's desire to sound like a native speaker. In terms of this, Leahy(1980) states that correct production is important because of existing prejudice among members of society who tend to listen to how something is said rather than the content of what is said. Additionally, empirical studies by Anisfeld, Bogo, and Lambert (1962), Arthur, Farrar, and Bradford(1974), and Ryan and Carranza(1975) found that as the degree of perceived accent-edness of a second language speaker increased, negative ratings of the speaker also increased among native speakers. Oyama(1976) further reports that aural discrimination and production difficulties can inhibit the second language learner in terms of social relations, achievements, and aspirations.

In connection with the preceding debate, it seems apparent that as language teaching has moved from an age of audiolingualism to a time in which communicative-based methodologies abound, that uncertainty has arisen in the area of aural discrimination and production instruction in the classroom. Although uncertainty may have arisen in the classroom, it appears that society in general is quite certain in its agreement as to the importance of correct aural discrimination and production by second language learners. If, then, as teachers one of our primary duties to

our students is to teach them skills which allow them to effectively interact in society, then the teaching of aural discrimination and production skills would seem to be an area which must be addressed.

A pilot study by the author was completed in 1986, examining a selected number of English phonemes, both vowel and consonantal, which were believed to cause aural discrimination problems for Korean EFL learners. Among the recommendations of that study was one which suggested that the sample of English phonemes included in the study be increased. In terms of extending that study, the current study proposes to probe certain variables which appear to affect the aural discrimination abilities of adult Korean EFL learners and possible instructional methods which would facilitate development of aural discrimination and production abilities. Questions to be discussed include the following:

1. Which among the English consonantal phonemes are difficult for Korean EFL learners to aurally discriminate?
2. Is the aural discrimination difficulty of an English consonantal phoneme influenced by whether the phoneme is presented in the initial, medial, or final position?
3. Is the aural discrimination difficulty of an English consonantal phoneme influenced by whether the phoneme is presented in a contextualized or non-contextualized situation?
4. What teaching methods will facilitate learner improvement in the area of aural discrimination and production of English consonantal phonemes?

Method

Subjects

The subjects were twelve Korean-speaking university students who were enrolled in university-sponsored EFL courses at the time of testing. Universities of the subjects included Inha University (11) and Korea University (1). Majors of the subjects included English Language and Literature (3), Mechanical Engineering (2), Physics (2), Chemistry (1),

English Education (1), Naval Architecture (1), Pre-Med (1), and Public Administration (1). Grade level of the subjects included graduate (2), undergraduate seniors (3), juniors (3), and freshmen (4). Six of the subjects were male and six were female. Ages ranged from eighteen to thirty-one.

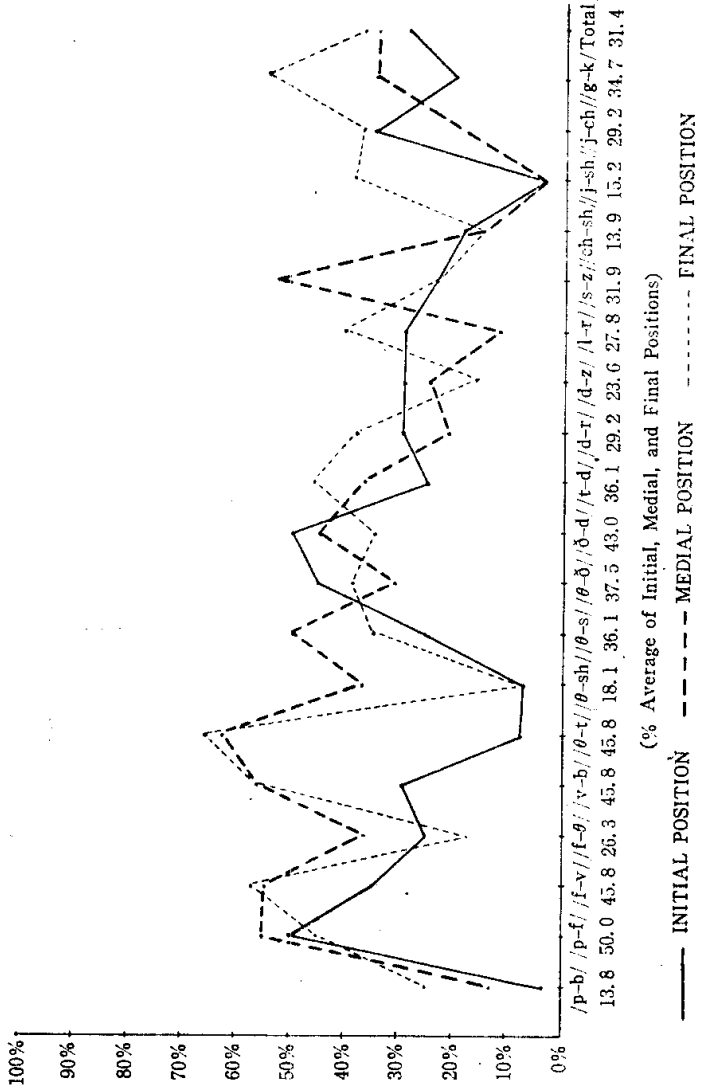
Each of the subjects was a native of Korea who had completed six years of EFL classes in public school: three years in middle school and three years in high school. The measure, which was administered in the middle of the university academic year, allowed the subjects at least an additional semester of EFL classes. Therefore, the total amount of EFL class years ranged from $6\frac{1}{2}$ to 10 years. Each of the subjects volunteered for the study.

Measure

The measure was divided into three sections, including a personal information section and two sections of different aural comprehension tasks (See Appendix I). In the personal information section, subjects were requested to provide answers to questions regarding name, university, major, grade level, sex, and age.

Upon completion of the personal information section, two sections of different aural discrimination tasks prepared and taped by the author were administered to the subjects. The first section was the Non-contextualized, Same/Different Aural Discrimination Task, requiring the subjects to identify whether two words presented were the same or different. Consonantal phonemes presented to the subjects were divided into nineteen minimal pairs including /p-b/, /p-f/, /f-v/, /f-θ/, /v-b/, /θ-t/, /θ-sh/, /θ-s/, /θ-t/, /ð-d/, /ð-d/, /t-d/, /d-r/, /d-z/, /l-r/, /s-z/, /ch-sh/, /j-sh/, /j-ch/, and /g-k/. The rationale for choosing these consonantal phonemes was based on two sources. First, the consonantal phonemes chosen were those included in the prepared index of problematic English phonemes for Korean EFL learners found in *Pronunciation Contrasts in English* by Nilsen and Nilsen. Secondly, informal surveys of professionals in the field of EFL teaching in Korea

TABLE 1 Averages of Non-contextualized, Same/Different Aural Discrimination Task Mistakes by phoneme and position



concerning problematic consonantal phonemes were taken. Each consonantal minimal pair was presented by tape to the subjects in the initial, medial, and final position, once using the same sound, once different (pike—pike, pike—bike; mopping, —mopping, mopping—mobbing; lap—lap, lap—lab). In this section, a total of one hundred, fourteen choices were to be made.

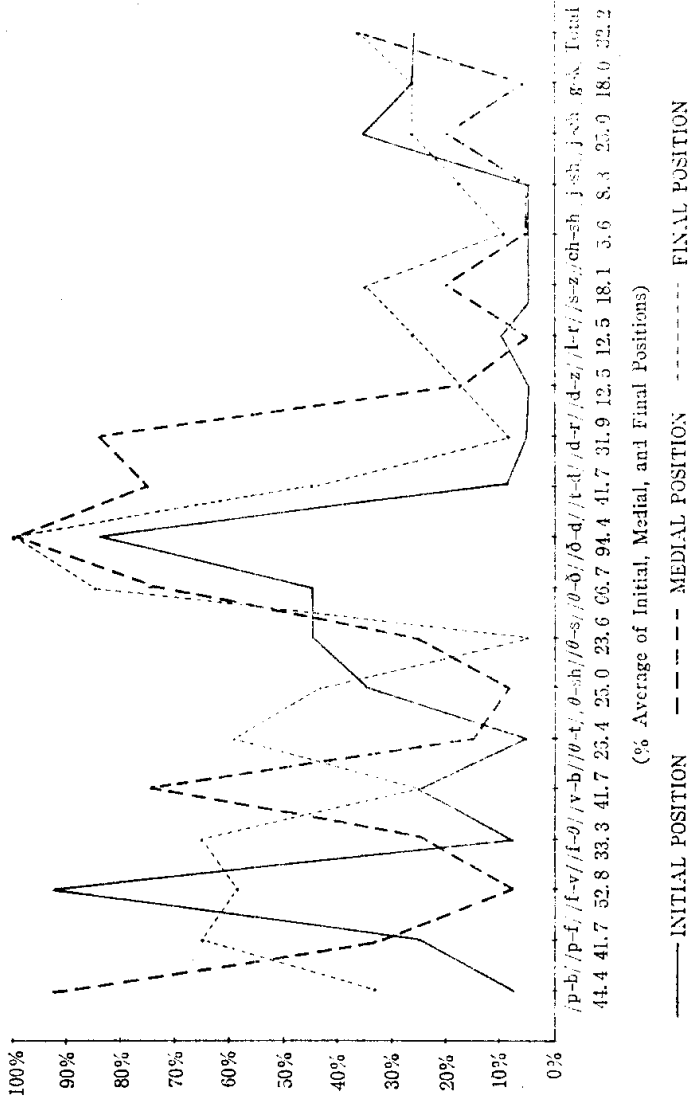
The second aural discrimination task was the Contextualized, Minimal Sentence Aural Discrimination Task, requiring the subjects to identify the correct word spoken among two choices in a minimal sentence. The same minimal pairs used in the preceding task were used in this one. Again, each consonantal phoneme was presented in the initial, medial, and final position (initially: He's going on the (pike—bike) tomorrow.) In this section, a total of fifty-seven choices were to be made.

Results

Table 1 presents the data compiled from the Non-contextualized, Same/Different Aural Discrimination Task presented to the subjects. The data is presented in terms of percentage of times subjects incorrectly identified whether items presented were the same or different.

Subjects incorrectly identified whether the consonantal phonemes in the pairs presented were same or different on an average of 31.4% of the time. Broken down in terms of consonantal phonemes in the initial, medial, and final positions, an average of 25.9% of the consonantal phonemes in the initial position were incorrectly identified as same or different, with the pairs /p-f/(50.0%), /ð-d/(50.0%), /θ-ð/(45.8%), /f-v/(33.3%), and /j-ch/(33.3%) most problematic. An average of 32.8% of the consonantal phonemes in the medial position were incorrectly identified as same or different, with the pairs /θ-t/(62.5%), /p-f/(54.2%), /f-v/(54.2%), /v-b/(54.2%), and /s-z/(54.2%) most problematic. An average of 35.5% of the consonantal phonemes in the final position were incorrectly identified as same or different, with the pairs /θ-t/(66.7%), /v-b/(54.2%), /g-k/(54.2%), and /f-v/(50.0%)

TABLE 2—Averages of Contextualized, Minimal Sentence Aural Discrimination Task Mistakes by phoneme and position



most problematic.

Table 2 presents the data compiled from the Contextualized, Minimal Sentence Aural Discrimination Task presented to the subjects. The data is presented in terms of the percentage of times the subjects incorrectly identified the item among minimal pairs embedded within a sentence.

Subjects incorrectly identified the consonantal phoneme pairs on an average of 32.2% of the time. Broken down in terms of consonantal phonemes in the initial, medial, and final positions, an average of 24.1% of the consonantal phonemes in the initial position were incorrectly identified, with the pairs /f-v/(91.6%), /ð-d/(83.3%), /θ-s/(41.6%), and /θ-ð/(41.6%) most problematic. An average of 35.9% of the consonantal phonemes in the medial position were incorrectly identified, with the pairs /ð-d/(100.0%), /p-b/(91.6%), /d-r/(83.3%), /v-b/(75.0%), /θ-ð/(75.0%), and /t-d/(75.0%) most problematic. An average of 36.6% of the consonantal phonemes in the final position were incorrectly identified, with the pairs /ð-d/(100.0%), /θ-ð/(83.3%), /p-f/(66.7%), and /f-θ/(66.7%) most problematic.

Discussion

Four questions concerning English language pronunciation in Korea were posed at the end of the Introduction section. These questions included the following:

1. Which among the English consonantal phonemes are difficult for Korean EFL learners to aurally discriminate?
2. Is the aural discrimination difficulty of an English consonantal phoneme influenced by whether the phoneme is presented in the initial, medial, or final position?
3. Is the aural discrimination difficulty of an English consonantal phoneme influenced by whether the phoneme is presented in a contextualized or non-contextualized situation?
4. What teaching methods will facilitate learner improvement in the area of aural discrimination and production of English consonantal phonemes?

TABLE 3-Phonemic pairs incorrectly aurally discriminated above the 25% level

	/p-b/	/p-f/	/f-v/	/f-θ/	/v-b/	/θ-t/	/θ-sh/	/θ-s/	/θ-ð/	/ð-d/
A		/p-f/	/f-v/	/f-θ/	/v-b/	/θ-t/		/θ-s/	/θ-ð/	/ð-d/
B	/p-b/	/p-f/	/f-v/	/f-θ/	/v-b/	/θ-t/	/θ-sh/		/θ-ð/	ð-d
	/t-d/	/d-r/	/d-z/	/l-r/	/s-z/	/ch-sh/	/j-sh/	/j-ch/	/g-k/	
A	/t-d/	/d-r/		/l-r/				/j-ch/		
B	/t-d/	/d-r/						/j-ch/		

A—Non-contextualized, Same/Different Aural Discrimination Task (Table 1)

B—Contextualized, Minimal Sentence Aural Discrimination Task (Table 2)

In reference to the first question, it bears repeating that the population surveyed in this study was one which had from 6½ to 10 years of formal EFL instruction, not a beginning EFL population. In that context, it may be observed in Tables 1 and 2 that all the phonemes selected as being problematic for Korean EFL learners were indeed incorrectly aurally discriminated in the course of the aural discrimination tasks. Pairs such as /d-z/, /ch-sh/, and /j-sh/ were in comparison less problematic than other pairs, but were nonetheless incorrectly identified. The question then arises at what percentage level of incorrect aural discrimination a phonemic pair is judged to be problematic? For the purposes of this study, a phonemic pair will be considered problematic if it is incorrectly discriminated more than 25% of the time. Table 3 lists the consonantal phonemic pairs incorrectly discriminated above the 25% level for both the Non-contextualized, Same/Different Aural Discrimination Task and the Contextualized, Minimal Sentence Aural Discrimination Task. If it is further stated that incorrect aural discrimination above the 25% level in either of the tasks constitutes a problematic English consonantal pair for the subjects, it may be observed that of the nineteen pairs chosen, fifteen were actually problematic for the subjects. Those pairs which were incorrectly aurally discriminated below the 25% level include the pairs /d-z/, /ch-sh/, /j-sh/, and /g-k/.

According to the prepared index of problematic phonemic pairs for Korean EFL learners found in *Pronunciation Contrasts in English* by Nilsen and Nilsen, the pairs /d-z/, /ch-sh/, /j-sh/, and /g-k/ should have caused similar aural discrimination problems for the subjects. In *Pronunciation Contrasts in English*, Nilsen and Nilsen prepared a language list of fifty languages. For each language it was stated that the list was compiled with the assistance of linguists or other specialists for that language. The discrepancy between the findings of the present study and those in Nilsen and Nilsen concerning the four pairs /d-z/, /ch-sh/, /j-sh/, and /g-k/ can be explained by the fact that it is not stated in Nilsen and Nilsen whether the information provided by the linguists was based on empirical studies or at what percentage level the phonemic pairs were considered problematic.

In relation to the observation that certain phonemic pairs in this study were incorrectly aurally discriminated below the 25% level, Sherman (1986) proposed that phonemic pairs which are problematic for Korean EFL learners seemed to have the following characteristics in common:

1. Combination - Whether a phoneme is discriminated with ease or with difficulty depends on the minimal pair context in which it is found.
2. Tongue/lip position - More difficulty is consistently experienced with minimal pairs in which the tongue/lip position for the two phonemes is different.
3. Absence of one phoneme from the language - Minimal pairs in which one phoneme, or variation thereof, is present in Korean and the other absent are consistently more problematic.

Regarding the phonemic pairs /ch-sh/, /j-sh/, and /g-k/ it may be observed that the most important characteristic absent among the preceding three is that for all three pairs, both phonemes constituting the pair, or variations thereof, are present in Korean. This observation is not applicable to the pair /d-z/, though because although the phoneme /d/ exists in Korean, the phoneme /z/ or a variation thereof does not.

It may be suggested that the characteristic of combination may explain why aural discrimination of this pair was not problematic for the subjects. Aural discrimination difficulties for the phoneme /d/ were evident when it was combined with the phonemes /θ/, /t/, and /r/. This observation also applies when the phoneme /z/ was placed in combination with the phoneme /s/. Therefore, even though the phonemes /d/ and /z/ posed aural discrimination problems in combination with other phonemes, perhaps this combination simply did not prove to be one which was difficult for the subjects.

TABLE 4—Averages of Aural Discrimination Mistakes by Position

	INITIAL	MEDIAL	FINAL	AVERAGE
A	25.9	32.8	35.5	31.4
B	24.1	35.9	36.6	32.2

A—Non-contextualized, Same/Different Aural Discrimination Task (Table 1)

B—Contextualized, Minimal Sentence Aural Discrimination Task (Table 2)

The second question posed concerns whether the aural discrimination difficulty of an English phoneme for a Korean EFL learner is influenced by the position of that phoneme in a word. Table 4 presents a compilation of the overall averages of aural discrimination mistakes for the consonantal phonemes examined in Tables 1 and 2 in terms of the initial, medial, and final positions. As the data presented in Table 4 show, the aural discrimination difficulty of an English phoneme for the Korean EFL learner is indeed influenced by the phoneme's position in a word. This finding that position influences aural discrimination difficulty agrees with findings in Sherman (1986) in which nine consonantal phoneme pairs were investigated. Nevertheless, a difference between the two studies exists in terms of aural discrimination difficulties of phonemes in different positions, depending on whether the phonemes were presented in a non-contextualized or contextualized situation. In the previous study it was found that, in a non-contextualized situation that phonemes presented in the initial position posed

the least amount of aural discrimination difficulty. Phonemes presented in the final position posed considerably more difficulty than those in the initial position. Phonemes in the medial position posed slightly more difficulty than those in the final position. In a contextualized situation, on the other hand, phonemes in the initial position posed the least difficulty with phonemes in the medial position slightly more difficult. Phonemes in the final position were considerably more difficult than those presented in the medial position.

In the present study, on the other hand, as Table 4 shows, it was found that in both non-contextualized and contextualized situations that phonemes presented in the initial position posed the least aural discrimination difficulty. Phonemes presented in the medial position were considerably more difficult than those in the initial position with phonemes in the final position slightly more difficult than those in the medial position. The difference between the results of the two studies is that this trend held equally for non-contextualized and contextualized situations. This trend would seem to be consistent with findings that the beginning of an utterance is remembered better than other parts. Additionally, if a difference exists between the medial and final positions, it is in terms of stress, which is consistently placed more on the medial position rather than on the final position, which could explain the slight difference in aural discrimination difficulty between phonemes in the medial and final position. This difference in findings between the previous and present study could possibly be explained in terms of the number of consonantal phoneme pairs studied (nine in the previous study and nineteen in the present study) or the number of subjects (forty-three in the previous study and twelve in the present study).

The third question posed for the study in the Introduction section asked if the aural discrimination difficulty of an English consonantal phoneme is influenced by whether the phoneme is presented in a contextualized or non-contextualized situation. The Average column of Table 4 presents data which suggests that aural discrimination difficulty of an English consonantal phoneme is influenced, though

it be slightly, by the situation in which the phoneme is presented. It can be seen that consonantal phonemes presented in contextualized situations proved more difficult for the subjects to aurally discriminate than those phonemes presented in non-contextualized situations. Subject responses concerning questions about the different ways of presentation proved to be particularly interesting in terms of the above observation. When asked whether non-contextualized or contextualized presentation was easier for them to aurally discriminate, the subjects overwhelmingly stated that the contextualized presentation was easier. When questioned as to why that was, the subjects explained that in the non-contextualized situation, the task was completely aural although in the contextualized situation, sentences including the phoneme pairs were available for the subjects to read just before hearing the taped reading of the sentence. In this situation, the task consisted of an aural, as well as a visual component. Based on subject observation, it could be suggested that if the Contextualized, Minimal Sentence Task had been presented to the subjects in such a way in which no visual component had been allowed, that the disparity between the Non-contextualized, Same/Different Aural Discrimination Task and the Contextualized, Minimal Sentence Aural Discrimination Task scores would have been even greater. Additionally, it is suggested that subject responses that the Contextualized, Minimal Sentence Aural Discrimination Task proved easier did not necessarily mean that the task was indeed easier, but instead that the subjects felt more confident about the task because of the visual cues.

The final question posed for the study in the Introduction section asked what teaching methods will facilitate learner improvement in the area of aural discrimination and production of English consonantal phonemes. As background to this question, it can be noted upon a review of the literature dealing with this field that the role of second language aural discrimination and production skills instruction has historically increased or decreased in importance depending on the language teaching approach in vogue at the time. Examples include the

relatively central role in pedagogy during the 1940's and 1950's when second language instruction was under the influence of structural linguistics, and thereafter when the audiolingual method enjoyed popularity. On the other hand, second language aural discrimination and production skills instruction received less emphasis during the period when second language teaching was influenced by Transformational-Generative Grammar and the Cognitive approach. In modern classrooms a tendency again exists toward downplaying the emphasis on this area.

According to the literature reviewed, although differences in terms of emphasis and aims may exist between authors depending upon the language teaching approach which is adhered to, general agreement exists that an aural discrimination and production component is an important part of second language instruction. Studies such as Anisfeld, Bogo, and Lambert (1962), Arthur, Farrar, and Bradford (1974), and Ryan and Carranza (1975) point to the importance placed on correct pronunciation by native speakers, placing a responsibility on second language instructors to include aural discrimination and production instruction as a component of the second language curriculum in order to meet the needs of the learners.

The question then arises as to what sorts of overall principles are to be followed in the instruction of aural discrimination and production in the classroom? It is first important to point out that second language aural discrimination and production learning is an incremental, often frustrating process for the learner. Therefore, Borden, Gerber, and Milsark (1983) state that it is important that the second language pronunciation instructor be aware of and, when necessary, point out to the learner certain trends in that process. These trends include the following:

1. The learner should expect changes in error patterns before correct pronunciation emerges.
2. Training may result in speech deterioration before recovery and improvement.
3. Experience with English outside of the class is effective in speech change.

Chastain (1976) states that when teaching second language aural discrimination and production, the instructor should assist the learner by describing and diagramming tongue and lip movements. The instructor's aim is not for native-like pronunciation in the beginning, but gently and progressively to get the learner to pronounce the sound to the best of his/her ability. According to Chastain, it is also necessary to have the learner repeat phrases and sentences which include problematic phonemes. The instructor's role, then, is to model, identify differences, and allow for practice of aural discrimination and production in class.

Bowen (1979) agrees with Chastain that modelling and imitation, although important in the teaching of second language aural discrimination and production, are in themselves insufficient, that describing and diagramming tongue and lip movements help some learners although not others, and that practicing phrases and sentences which include problematic phonemes is important. In addition he states that comparison and contrast is effective in pinpointing differences in phonemes although not necessarily a guarantee of acquisition of two contrasting phonemes. He suggests, then, that a combination of all of the above is necessary in order to effect correct second language pronunciation in learners.

According to Bowen, a contextualized, minimal pair approach to teaching second language aural discrimination and production is one which is useful but often not utilized effectively. Typically, he states that contrasting words which the learners must discriminate between are presented without context. Later, learners practice the discrimination by imitation. The process is then expanded to the sentence level. Results are that with the instructor leading the practice session, learners receive a minimal amount of pronunciation practice time, and that practice which is available is uncontextualized. Bowen states, then, that if the contextualized minimal pair approach is to be effective, practice should be a) meaningful, b) picturable, c) balanced and d) if possible relevant to the experience or interest of the learners.

An example of an aural discrimination/production lesson developed

by the author incorporating the above suggestion can be found in Appendix II. The lesson begins with the instructor asking the students if a particular minimal pair combination (in the case of Appendix II, the pair /s-θ/) is difficult to aurally discriminate and produce. After the learners agree that difficulty exists, an example of an isolated pair is put on the board. At this time the instructor can explain tongue/lip position and model for the learners, answering any questions which arise. After a short practice period, a sheet containing only the minimal sentences is given out. Unknown vocabulary is elicited from the learners first, allowing for their undivided concentration on the aural discrimination/production problem in the sentences. Again, the instructor models the words to be studied, followed by individual learners modelling. After completion of this step, the learners are divided into pairs. One student looks at his/her sheet of minimal sentences. The other member is given a set of twenty cards (five pairs, two examples of each). On each card is a picture and one of the minimal sentences on the sheet held by the partner. The task for the learner with the twenty cards is to read the sentence pictured on the card. If the partner points to the correct minimal sentence, card is given to him/her. If the partner points to the incorrect sentence, an aural discrimination/production mistake has been made, and the card is placed at the bottom of the deck to be read again. This process is continued until all twenty cards are given away. When all of the cards are given away, the partners' roles are reversed, the reader then becoming the pointer. The activity is finished when both partners have been both the reader and the pointer, and all cards have exchanged hands twice. The instructor is free during this time to give individual help to slower pairs. After all pairs are finished, the instructor can again model and answer questions about pronunciation, of which there are generally many, and assign follow-up exercises.

Advantages of this methodology include the fact that as Chastain and Bowen advocated, the activity includes time for modelling and imitation, description of tongue/lip movements, practice with phrases and sentences

which include the problematic phonemes, and comparison and contrast. Additionally, as Bowen suggested the practice is a) meaningful, b) picturable, c) balanced, and d) relevant to the experience or interest of the learners. The method also allows the learners to work on the very sounds which give them problems for as long as is necessary in a cooperative atmosphere. The instructor also has the advantage of being able to spend one on one time with those individuals or pairs which are having the most difficulties. Finally, the activity allows the learners to realize the importance of correct aural discrimination and production, often pointing out previously unsuspected aural discrimination or production problems.

Conclusions and Recommendations

In terms of conclusions, certain limitations concerning the present study may be pointed out. The first limitation involves the number of subjects. A total of twelve subjects for a study such as this would seem to be toward the bottom end of an acceptable number of subjects. The level of the subjects tested is also limited, being an intermediate level group. Another point which could be viewed as a possible limitation is the fact that a systematic study of all English phonemes was not made, only those which were stated to indeed be problematic in terms of aural discrimination for Korean EFL learners. Finally, the study is limited to the extent that no production section was included.

In terms of the questions posed in the Introduction section, it was found that fifteen out of the nineteen consonantal phoneme pairs stated by Nilsen and Nilsen to cause aural discrimination problems actually did so in this study. Based on this study's finding that four consonantal phoneme pairs stated to cause aural discrimination by Nilsen actually did not, the question arises if consonantal phonemes other than those stated to cause aural discrimination problems might indeed be problematic. It was consistently found that the aural discrimination difficulty of an English consonantal phoneme is influenced by whether the phoneme is

presented in the initial, medial, or final position, with phonemes in the final position being most difficult, followed by those in the medial position, with phonemes in the initial position causing the least amount of difficulty. Of interest concerning the third question is the fact that aural discrimination difficulty was influenced by whether the phoneme was presented in a contextualized or non-contextualized situation, with phonemes presented in a contextualized situation being more difficult. This finding is despite the fact that a visual as well as an aural component was available to the subjects in the contextualized situations.

In view of these findings certain recommendations concerning the direction of possible future investigation in this area are apparent. It is first suggested that future studies investigate English vowel phonemes to empirically determine which ones cause aural discrimination difficulties for Korean EFL learners. It would also be important in the future to attempt to both enlarge the sample size and to include more than just intermediate level subjects to investigate the effect of EFL learner's years of EFL study on aural discrimination ability. It is also recommended that a production section be added to the aural discrimination section in future research. Of additional interest would be studies comparing post-treatment short-term and long-term gains in aural discrimination and production ability. Finally, it is suggested that visual cues be eliminated in the Contextualized, Minimal Sentence Aural Discrimination Task to ensure a more accurate comparison of the contextualized and non-contextualized pairs.

In terms of teaching methods, it would be useful to have empirical studies investigating the effectiveness of suggestions offered by Chastain and Bowen and teaching techniques such as the one offered by the author. Based on the findings concerning the fact that aural discrimination difficulty is influenced by phoneme position in a word, it is recommended that instruction include words in which the phoneme in question is presented in the initial, medial, and final positions, graduating from initial to medial to final. Finally, further development of materials for the teaching of aural discrimination and pronunciation needs to be

encouraged in order that the classroom teacher be able to choose from those materials which prove to be most effective, allowing for the efficient use of the limited teaching time available.

References

- Anisfeld, M., N. Bogo, and W. Lambert. "Evaluational Reactions to Accented English Speech." *Journal of Abnormal and Social Psychology*, 65(1962), 223-31.
- Arthur, B., D. Farrar, and G. Bradford. "Evaluation Reactions of College Students to Dialect Differences in the English of Mexican Americans." *Language and Speech*, 17(1974), 255-70.
- Borden, G., A. Gerber, and G. Milsark. "Production and Perception of the /r/-/l/ Contrast in Korean Adults Learning English." *Language Learning*, 33, no. 4(1983), 499-526.
- Brumfit, C. *Communicative Methodology in Language Teaching*. London: Cambridge University Press, 1984.
- Chastain, K. *Developing Second Language Skills: Theory to Practice*. 2nd rev. ed. Chicago: Rand McNally College Publishing Co., 1976.
- Guiora, A., B. Beit-Hallahmi, R. Brannon, C. Dull, and T. Scovel. "The Effects of Experimentally Induced Changes in Ego States on Pronunciation Ability in Second Language: An Exploratory Study." *Comprehensive Psychiatry*, 13(1972), 421-28.
- Leahy, R.M. "A Practical Approach for Teaching ESL Pronunciation Based on Distinctive Feature Analysis." *TESOL Quarterly*, 14, no. 2 (1980), 209-19.
- Nilsen, D., and A. Nilsen. *Pronunciation Contrasts in English*. New York: Regents Publishing Co., 1973.
- Oyama, S. "A Sensitive Period for the Acquisition of a Nonnative Phonological System." *Journal of Psycholinguistic Research*, 5(1976), 261-85.
- Pennington, M.C., and J. Richards. "Pronunciation Revisited." *TESOL Quarterly*, 20, no. 1(1986), 207-25.
- Ryan, E., and M. Carranza. "Evaluative Reactions of Adolescents toward Speakers of Standard English and Mexican American Accented English." *Journal of Personality and Social Psychology*, 31(1975), 855-63.
- Sherman, L. "Aural Discrimination Difficulties with English Phonemes Among University EFL Learners." *Bulletin of the Institute for Humanistic Science*, Vol. XII, Inha University Press, (1980), 301-324.

Appendix 1

Name:
 University:
 Major:
 Year:
 Sex:
 Age:

PRONUNCIATION**Part 1**

Part 1 includes numbers 1-114. For each of these numbers you will hear two words. You will hear each word only once so listen carefully. If the two words are the same, circle "S". If the two words are different, circle "D" next to the correct number. For example, if you hear "lock-lock", you circle "S". If you hear "lock-rock", you circle "D".

Practice: a) S D b) S D

- | | | | | |
|---------|---------|---------|----------|----------|
| 1. S D | 26. S D | 51. S D | 76. S D | 101. S D |
| 2. S D | 27. S D | 52. S D | 77. S D | 102. S D |
| 3. S D | 28. S D | 53. S D | 78. S D | 103. S D |
| 4. S D | 29. S D | 54. S D | 79. S D | 104. S D |
| 5. S D | 30. S D | 55. S D | 80. S D | 105. S D |
| 6. S D | 31. S D | 56. S D | 81. S D | 106. S D |
| 7. S D | 32. S D | 57. S D | 82. S D | 107. S D |
| 8. S D | 33. S D | 58. S D | 83. S D | 108. S D |
| 9. S D | 34. S D | 59. S D | 84. S D | 109. S D |
| 10. S D | 35. S D | 60. S D | 85. S D | 110. S D |
| 11. S D | 36. S D | 61. S D | 86. S D | 111. S D |
| 12. S D | 37. S D | 62. S D | 87. S D | 112. S D |
| 13. S D | 38. S D | 63. S D | 88. S D | 113. S D |
| 14. S D | 39. S D | 64. S D | 89. S D | 114. S D |
| 15. S D | 40. S D | 65. S D | 90. S D | |
| 16. S D | 41. S D | 66. S D | 91. S D | |
| 17. S D | 42. S D | 67. S D | 92. S D | |
| 18. S D | 43. S D | 68. S D | 93. S D | |
| 19. S D | 44. S D | 69. S D | 94. S D | |
| 20. S D | 45. S D | 70. S D | 95. S D | |
| 21. S D | 46. S D | 71. S D | 96. S D | |
| 22. S D | 47. S D | 72. S D | 97. S D | |
| 23. S D | 48. S D | 73. S D | 98. S D | |
| 24. S D | 49. S D | 74. S D | 99. S D | |
| 25. S D | 50. S D | 75. S D | 100. S D | |

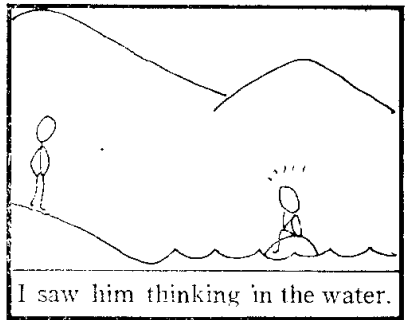
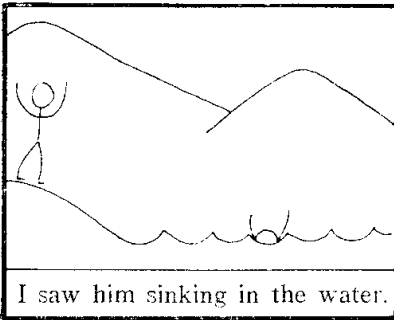
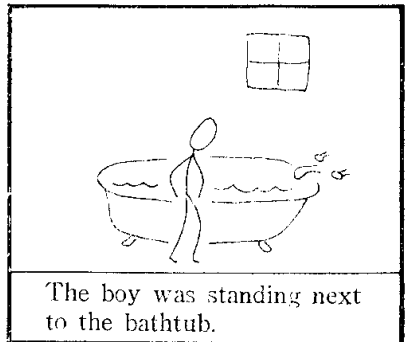
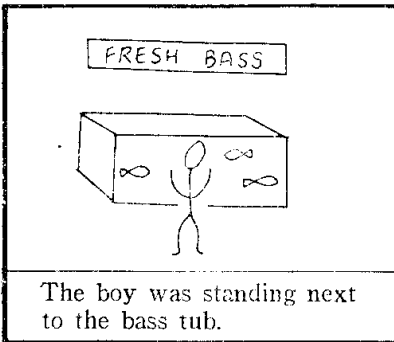
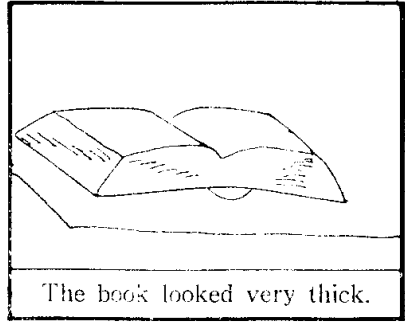
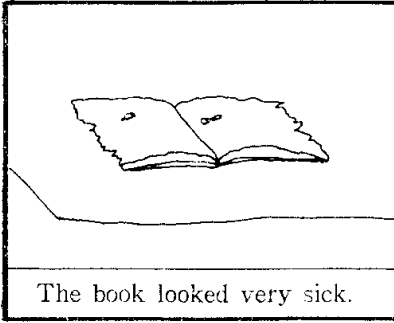
Part 2

Part 2 includes numbers 1-57. For each of these numbers you will hear a sentence. The sentences are listed below. In each sentence there is a set of parentheses (). Inside the parentheses there are two words. You should choose and circle the word you hear. You will hear each sentence only once so listen carefully.

1. He's going on the (pike/bike).
2. Did you hear about their (plight/flight)?
3. It is his (fault/vault).
4. It's an extra (frill/thrill) for her.
5. You can not (vend/tend) those here.
6. That's a good (theme/team).
7. Her coat was in (threads/shreds).
8. I never (thought/sought) it.
9. He can spell (thy/thigh).
10. When will (they/day) come?
11. He seemed (tense/dense).
12. Did they (dent/rent) it?
13. That's my (dipper/zipper).
14. This is a good (lime/rhyme).
15. She is (sipping/zipping) it.
16. I heard something (chatter/shatter).
17. I hear them (jingling/shingling).
18. The crowd (jeered/cheered).
19. It is a fine (gauze/cause).
20. They were (mopping/mobbing) the store.
21. She is going to (supper/suffer).
22. Did he (suffle/shovel) them?
23. He seldom (laughs/laths).
24. I can see two (calves/cabs).
25. She was sad about the (deaths/debts).
26. The workers are (lathing/lashing) the coat.

27. That child is sort of (mouthy/mousy).
28. I don't like (either/ether).
29. That teacher (loaths/loads) his students.
30. He is (hurting/herding) the sheep.
31. He (hides/hires) criminals.
32. She stepped over the (puddle/puzzle).
33. (Collect/Correct) the papers.
34. They are (racing/raising) horses.
35. There is water in the (ditches/dishes).
36. There was no (margin/martian).
37. It was a fine (edging/etching).
38. He is (tagging/tacking) them.
39. Put this in your (lap/lab).
40. You could see the (stripe/strife).
41. They're beginning to (leaf/leave).
42. It's a beautiful (reef/wreath).
43. The accident was on the (curve/curb).
44. He can't stand the king's (wrath/rat).
45. She gave him a (bath/bash).
46. They went over the (path/pass).
47. Say the word (loath/loth).
48. Rabbits (breathe/breed) quickly.
49. They burned the (cart/card).
50. Has the (tide/tire) come in?
51. That's a southern (breed/breeze).
52. It was lost in the (file/fire).
53. They did not (face/faze) him.
54. Please (match/mash) them.
55. It is (sludge/slush).
56. Did you see her (lunge/lunch)?
57. There's a (snag/snack) in my coat pocket.

APPENDIX II



〈국문 초록〉

한국 대학생의 영어 자음음소 식별 난이도 연구

LeRoy Sherman

(인하대학교)

이 연구는 한국 대학생이 영어의 발음을 귀로 듣고 구별할 때, 어떤 자음에 곤란을 느끼고 있는지 알아보기 위한 것으로 다음과 같은 몇 가지 구체적 문제를 다루었다. 그 문제란 첫째, 어떤 자음음소에 가장 어려움을 느끼는지, 둘째, 한 단어에서 자음음소가 차지하는 위치에 따라 곤란도가 달라지는지, 셋째, 주어진 음소가 단어로 제시될 때와 문장으로 제시될 때에 따라 곤란도가 달라지는가 하는 것이었다. 또한 자음을 듣고 보다 잘 구별할 수 있고 발음할 수 있도록 하는 몇 가지 교수방법을 제시하였다.

이 연구를 위해 대학생 12명이 조사대상으로 뽑혔으며, 각각의 학생들이 전공, 학년, 성별, 나이등의 인적사항을 기입하고 그들에게 19쌍의 자음음소가 두 가지 다른 방법으로 제시된 녹음을 듣고 그 발음을 구별하는 과제가 주어졌다. 그 결과, 19쌍의 자음음소중 15쌍이 25% 이상의 곤란을 일으켰으며 또한 그 곤란도가 특정음소가 한 단어에서 차지하고 있는 위치 및 단어로 제시되는가 문장으로 제시되는가에 따라서 영향을 받고 있음이 밝혀졌다. 마지막으로 나타난 결과가 앞에서 제시된 몇 가지 문제에 어떤 점을 시사하는지에 대해서도 논의하였다.