An Approach to the Instruction of Listening Comprehension Utilizing Learners' Transcripts and Simultaneous Speech Reproduction

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1. INTRODUCTION

The ability of listening comprehension has been regarded as more and more important in accordance with the rapid increase in the number of learners who wish to study in English-speaking countries or who are planning to take licensing examinations such as one for teachers. It is also crucial for any English learners as a foundation in obtaining linguistic input, out of which utterances as output are considered to emerge. However, the instruction of listening comprehension seems to be a fairly difficult aspect of language teaching for teachers to deal with in that the entire mechanism of oral perception is a mental process which leaves much to be investigated, and this might be related to the fact that less research has been conducted in this field of language teaching than in other fields in Japan.

In consideration of this situation, this paper introduces the researcher's own approach adopted in the instruction of listening comprehension in English to intermediate learners, presents the results obtained in the course of instruction, and statistically analyzes them, so that some clues for better instruction of listening may be found out. In addition, this study seeks the correlation between the results

gained in the listening tests which investigate learners' abilities in listening comprehension and those attained in a cloze test to assess the learners' overall language proficiency, especially grammatical ability. Furthermore, some problems involved in this research will be discussed in the later section of this paper along with some pedagogical implications for future study on this issue.

2. LISTENING COMPREHENSION AND REDUNDANCY

2.1 LISTENING REQUIRING LEARNERS' ACTIVE PARTICIPATION

In this section some steps taken in comprehending messages will be deliberated and the essence of listening comprehension as an activity requiring learners of active participation will be discussed. This discussion is based mainly on the framework in Tanabe (1994) regarding the issue (226-36). Tanabe (1994) indicates a couple of steps taken in the entire process of listening comprehension, referring to some previous works of literature. The first step is 'auditory perception,' through which speech sounds as a physical entity symbolizing certain objects or things are picked up among a long series of sounds. This can be difficult for the beginning learners who are not farmiliar with the phonological system of the target language, and such learners are considered to be unable to pick up certain speech sounds in the language. The second step is 'recognizing' and 'grasping.' The former refers to the activity of roughly recognizing words among the sounds picked up, and the latter indicates that of realizing what the word means.

However, the fact that a learner is able to recognize certain speech sounds and to grasp their meanings does not ensure that he can understand successfully what is intended by his partner in a conversation. This is because listening is not an activity of simply realiz-

ing what is said but that of comprehending what is truely meant by a speaker. Therefore, the 'inferential gap' between what is referred to by a speaker and what is inferred by a listener needs to be compensated through the listener's active inferences. In that sense, as Rivers and Temperley (1978) indicate, the activity of listening comprehension is regarded as "an active process of constructing a message" (63).

As Koike (1993) indicates, another important aspect required in listening comprehension is grammatical ability. Any learner cannot grasp the true meanings of sentences pronounced without it. It is certain that understanding such structural aspects of sentences as tense, aspect, number, anaphora, etc. greatly contributes to a listeners' comprehension of the utterances . This seems to be emphasized in the case of intermediate or advanced learners who are expected to comprehend more precise messages.

Taking these into consideration, listeners with the ability of comprehending messages successfully can be defined as those who can pick up speech sounds as a physical entity, recognize words from among them, grasp the meanings of words, phrases and sentences with the help of grammatical ability, and actively infer what is intended by a speaker.

2.2 REDUNDANCY, LISTENING AND CLOZE TEST

In this section the concept of redundancy in language as a factor which facilitates understanding in both spoken and written messages will be discussed from a pedagogical viewpoint on the basis of some previous works of literature on the problem. Furthermore, the hypothesis of this research will be generated in the last part of this section.

In natural language a certain grammatical feature such as tense is often represented with more than one symbol. For example, in the sentence 'Paul went to the park yesterday', the tense of the sentence is represented with 'went', the past form of the verb 'go' and 'yesterday', the adverb indicating past. In other words, the symbols indicating past tense are redundant. This phenomenon is true of phonological, semantic, and lexical aspects of language. In fact, more than 50 % of the entire linguistic elements we encounter in our daily lives are redundant ones (Rivers, 1981, 153), and the messages transmitted by a speaker can be recognized by a listener easily due to the redundancy. In short, redundancy in natural language is considered to be facilitating understanding messages even in situations full of noises and making it possible for us to predict missing symbols from the context.

Redundancy in language has been a focal issue in the field of language teaching, as shown in the substantial amount of literature concerning the problem. As Caulfield and Smith (1981) describe, it is hypothesized that a learner with more global proficiency can receive messages easily and restore more texts (54-55). This is based on Oller's (1973) argument on storing short-term memory with chunks. He indicates that one way of increasing information stored in each chunk is to utilize 'a hierarchically structured grammar of expectancy', (115) and that language competence is represented with this learner's 'grammar of expectancy', which is to be measured by cloze tests (116). He further suggests that the rapidity in processing information is greatly enhanced if the sequences of chunks are employed by learners, thus leading to less constraint on their short-term memory (115).

One of the ways of assessing learner's competence described as

'a grammar of expectancy' is the cloze test. The passage for this test is composed of the sentences with n-th words systematically deleted. Another way is the reduced redundancy test which incorporates a passage with some parts masked with white noise.

Some research has been conducted to investigate the relationship between learners' abilities in certain aspects of language displayed with the 'grammar of expectancy' and the scores achieved in cloze tests or reduced redundancy tests. Some of the major works will be introduced here in chronological order.

Oller and Conrad (1971) reported the intercorrelation among the sub-test results of UCLA ESL Placement Examination and the results of a cloze test. They found strong correlations between the reading test and the cloze test and between the dictation test and the cloze test. Stubbs and Tucker's (1974) study on intercorrelations among two types of cloze tests (a cloze test for exact responses and a cloze test for acceptable responses), total scores and sub-scores of the English Entrance Examination required of applicants to American University of Beirut shows strong correlations with each other. Irvine, et al. (1974) investigated the correlations among TOEFL part-scores, total score, and the two types of cloze tests and found the strong correlations among most of the pairs. They suggested that the cloze, a written test, correlated highly with auditory tests such as dictation and listening comprehension. Furthermore, intercorrelations among the cloze test, the reduced redundancy test, interview and the four MLA sub-tests were investigated by Caulfield and Smith (1981), and strong correlations with each other were reported. They indicated that either a cloze test or a reduced redundancy test could be utilized to supplement the MLA. The findings reported in Oller and Conrad (1974), Irvine, et al. (1974) and Caufield and Smith (1981) are

of great relevance to the current study in that they showed that cloze test scores are strongly related to listening test scores.

Taking these research findings into consideration, it is hypothesized that learners with 'grammar of expectancy' are able to comprehend more messages aurally even if some parts are not heard, just as they can grasp more meanings from the written texts some of which are deleted. Based on the hypothesis, the researcher implemented the activity of making learners' own transcripts and that of simultaneous speech reproduction. The former activity is simply a dictation of the texts listened to. However, it seems that learners are required to make the most use of their 'grammar of expectancy' in the process of completing the missing parts in their transcripts, and that they can improve the quality of the grammar gradually in making many transcripts. Needless to say, a certain amount of auditory input will be ensured while listening to the tapes. Furthermore, learners' own transcripts might have some positive impact on their activity of simultaneous speech reproduction, in that they are the fruits of their struggle in figuring out the text. The activity of simultaneous speech reproduction is carried out on the basis of the assumption that learners can store longer sequences of chunks and feel it easier to reproduce the utterances they have just heard in accordance with the improvements in their 'grammar of expectancy'. This is supported by the fact that any learners can reproduce simultaneously what they are listening to in their first languages.

In this research the following research questions concerning the efficacy of the approach involving learners' transcripts and simultaneous speech reproduction will be answered in the later section.

1) How much improvement has been made by the subjests in terms of listening comprehension assessed with simulated TOEFL

tests ?

2) How strong is the correlation between the results of listening comprehension achieved by the subjects and those obtained in a cloze test ?

3. METHOD

3.1 SUBECTS AND CONTENTS OF THE APPROACH

Four groups of sophomore students majoring in English language or English literature at Baiko Jo Gakuin College who were enrolled in the researcher's class of English Phonology II in 1994 and 1995 which focused on the improvement of listening ability through language laboratory sessions while providing phonetic and phonological knowledge concerning English language. Group I consisted of 43 language majors in 1994 (hereafter G 1), Group II (G 2) of 48 literature majors in 1994, Group III (G 3) of 38 language majors in 1995, and Group IV (G 4) of 56 literature majors in 1995. However, these numbers do not correspond to those dealt with in the later section related to statistical analysis, on the grounds that the number of those who missed even one test in the research is not included in the statistics. Almost the same amount of English training was supposed to be provided for all subjects including listening comprehension at the time of their enrollment, although their proficiency in English varied to a certain degree depending on each subject.

As homework, the subjects were instructed to answer multiple-choice questions with two short dictation sentences after listening to the tape-recorded conversations or narratives spoken by native speakers in each chapter in the textbook entitled *Active Listening* by Roger Northridge and Akio Tanaka. In addition, they were also instructed to transcribe the entire part of a conversation or a narrative

for one class hour on the reverse side of an answer sheet. It is assumed that it took the subjects twenty or thirty minutes to complete the work.

In the classroom the homework done at home was checked after listening to the tapes, including correcting errors in their transcripts. Typical errors which were supposed to be derived from their lack of phonetic/phonological knowledge or grammatical ability were indicated each time. Based on the complete transcripts made by the subjects, which were submitted in order for the researcher to recheck their errors, the activity of simultaneous speech reproduction was implemented. This rechecking might have contributed to subjects' making better first transcripts because they knew their transcripts would be read by the researcher. At first, the subjects were permitted to read their transcripts at the same speed as the playing tape-recorded conversations or narratives. After they became a little comfortable in reproducing them, they were instructed to simultaneously reproduce them without reading their transcripts while listening to the correponding sections of the tapes until they achieved certain confidence in their activity. Furthermore, they were required to practice reproducing simultaneously the text which they had already learned at home, although it was difficult to confirm that they actually did. The activity of simultaneous speech reproduction was supplemented with the instruction of English phonetics/phonology, especially of those related to sound changes occurring frequently such as assimilation, elision, and liaison. In the next class hour five or six learners performed their speech reproduction that they practiced at home through their headsets.

3.2 PROCEDURE

Two separate listening sections from a book providing simulated TOEFL Tests were adopted to assess the subjects' abilities in listening comprehenson, based on the researcher's impression on the difficulty of the tests in comparison with the actual TOEFL Tests. It is true that the tests with high reliability should have been utilized, but such tests were not practical from an economical point of view because, in this research, the subjects were to take listening tests four times before and after the treatments in two school terms. Therefore, it should be noted that the statistical results obtained from this research may be reflecting a roughly grasped tendency, but not one with statistical reliability.

The subjects' achievements in listening comprehension were assessed, comparing the scores achieved in the pre-test and those in the post-test. In order to assess the achievements in the first school term, Version A (for convenience' sake) was used for all groups as both pre-tests and post-tests, and Version B was utilized for all groups to investigate their achievements in the second school term. Furthermore, a cloze test with 50 blank spaces occurring every seven words made by the researcher was conducted for G 3 and G 4, so that the results in the cloze test may be compared with the mean scores gained by the same groups.

4. RESULTS

4.1 t test

In this section the achievements in listening comprehension by four groups will be statistically analyzed with t test which is used to compare mean scores in pre-tests and those in post-tests.

Table 1. Comparison between G1's Pre-test and Post-test in 1st School Term, 1994, Based on *t* test for Correlated Samples

	Pre-test	Post-test
Mean	19.85	22.45
SD	6.51	5.93
N	33	33
	$t=3.19*$ $p\leqq 0.005$	

Table 2. Comparison between G1's Pre-test and Post-test in 2nd School Term, 1994, Based on *t* test for Correlated Samples

	Pre-test	Post-test
Mean	24.60	27.27
SD	5.64	5.73
N	30	30
	$t=3.43*$ $p\leqq 0.005$	

Table 3. Comparison between G2's Pre-test and Post-test in 1st School Term, 1994, Based on *t* test for Correlated Samples

	Pre-test	Post-test
Mean	19.00	22.03
SD	4.66	4.71
N	34	34
	$t=3.20*$ $p\leqq 0.005$	

Table 4. Comparison between G2's Pre-test and Post-test in 2nd School Term, 1994, Based on t test for Correlated Samples

	Pre-test	Post-test
Mean	22.37	25.12
SD	6.07	6.21
N	41	41
	$t=3.00*$ $p\leqq 0.005$	

Table 5. Comparison between G3's Pre-test and Post-test in 1st School Term, 1995, Based on t test for Correlated Samples

	Pre-test	Post-test
Mean	20.17	24.69
SD	5.06	4.80
N	36	36
	$t=5.22*$ $p\leqq 0.005$	

Table 6. Comparison between G4's Pre-test and Post-test in 1st School Term, 1995, Based on t test for Correlated Samples

	Pre-test	Post-test
Mean	21.49	24.31
SD	5.78	5.51
N	39	39
	$t=3.07*$ $p\leqq 0.005$	

As the results of t test conducted indicate, the mean scores achieved in all the post-tests are significantly different from those gained in the pre-tests. In other words, the subjects in all groups achieved statistically higher scores in the post-tests than in the pre-tests. It is noteworthy that both G1 and G2, whose test scores were completely recorded throughout the year, achieved statistically higher scores at the end of both school terms. It should be noted that the post-test for G3 and G4 had not been conducted yet at the time when this statistical anaylsis was carried out.

4.2 CORRELATION ANALYSIS

In this section the correlation between the subjects' scores of a cloze test and those gained in listening tests will be analyzed, utilizing Pearson Product-Moment Correlation. The mean scores obtained from three listening tests for G3 and G4 in 1995 and the scores of a cloze test by the same subjects were used to see if there was any correlation between the subjects' grammatical abilities and their proficiency in listening comprehension.

Table 7. Correlation Coefficient between Cloze Scores and Listening Scores Based on Pearson Product-Moment Correlation

	G3 (N=30)'s Mean in Listening	G4 (N=37)'s Mean in Listening
Cloze Test	0.484	0.476

$p \leqq 0.005$

As the figures of correlation coefficient indicate, positive correlation (although not strong) was observed at the 0.005 level between the results of the cloze test gained from G3 and G4 and the mean

scores of three listening tests achieved by the same subjects.

5. DISCCUSSION

The research questions raised in the previous section will be deliberated, based on the results that have been analyzed so far. As mentioned earlier, the assessment was conducted not with the actual TOEFL but simulated TOEFL which leaves a problem regarding the reliabilty of the tests. However, it is possible to grasp the general tendency shown in the results.

1) How much improvement has been made by the subjects in terms of listening comprehension assessed with simulated TOEFL tests ?

Table 8. Improvements in Listening by Four Groups Shown in Mean Scores

	1st Pre Version A	1st Post Version A	2nd Pre Version B	2nd Post Version B
Group 1	19.85	22.45	24.60	27.27
Group 2	19.00	22.03	22.37	25.12
Group 3	20.17	24.69	——	——
Group 4	21.49	24.31	——	——

Although two different versions of simulated TOEFL were used in two school terms in order for the subjects not to become farmiliar with the contents, constant improvements reflected on the scores were observed in all sessions, as is shown in Table 8 above. These were all confirmed with the *t* test results. Provided that the difficulties of the two tests are on the same level, the subjects were observed to improve their listening comprehension abilities in one school

year by six to seven points out of 50 full marks which are equal to the improvement of four to five points in the actual TOEFL.

There are a few problems that remain unsolved in this part of the research. The first problem is related to the use of simulated TOEFL tests employed for an economical reason. Therefore, the improvements by six to seven points may not mean much because of the lack of reliability of the tests adopted, since there is no objective measures to be referred to. The second problem is that it is difficult to predict whether or not the activity of making learners' own transcripts or simultaneous speech reproduction has had direct influence on the outcome in that all groups were instructed in the same method. Grouping based on different treatments would be effective if the direct effects were to be investigated. It is difficult to make sure that the subjects were actually practicing simultaneous speech reproduction at home which was assumed to have great influence on their improvements. Therefore, it is also difficult to predict to what extent this activity has influenced the outcome.

2) How strong is the correlation between the results of listening comprehension achieved by the subjects and those attained in a cloze test ?

Correlation coefficient between the cloze scores and the mean scores of three listening comprehension tests are 0.484 for Group 3 and 0.476 for Group 4 at $p \leqq 0.005$. Although these are not so strong as those reported in other research mentioned in the previous section, they are still in the range of 'considerably strong'. This seems to support the hypothesis that learners with 'grammar of expectancy' are likely to comprehend more auditory messages making the most use of redundancy in language just as they can realize more meanings encoded in written texts. Comparatively low coefficients appear

to have resulted from the difficulty of the passage used for the cloze test. If an easier passage had been employed, more straightforward tendency might have been observed. This should be reconfirmed in future research.

6. SUMMARY AND CONCLUSION

This paper introduced the researcher's own approach to teaching listening comprehension to intermediate learners. This approach included the activities of making learners' own transcripts and simultaneous speech reproduction. This approach was based on the hypothesis that learners with sufficient abilities in comprehending both written and oral messages are likely to utilize redundancy in language to the full. Furthermore, it was assumed that the activity of making a complete transcript would require learners of the same ability as that needed in filling in blank spaces in a cloze test, and that this ability could be developed in repeated practice of making learners' own transcripts. It was also hypothesized that learners can comprehend more auditory messages as they can store more memory in the form of longer chunks that were expected to appear as the result of the activity of simultaneous speech reproduction.

The results obtained from the pre-tests and post-tests conducted before and after the school terms were statistically analyzed using *t* test, and it was found that there were constant improvements in listening comprehension scores for the learners in all groups after the instruction with the approach involving the two kinds of activities. However, the problem of whether or not the activities described above had had any direct influence on the improvements is to be investigated in further study.

In addition, the correlation coefficient between the cloze score

and the mean score of the three listening comprehension tests gained from the same subjects suggested that there was a considerably strong correlation between the two. This might support the hypothesis mentioned above.

Although some further steps need to be taken before asserting the efficacy of the approach, it should be emphasized that 'grammar of expectancy', the ability to utilize redundancy in language to the full should be developed in the instruction of listening comprehension.

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