Teaching Suprasegmental Features of Pronunciation as a Component of Listening Comprehension Instruction

—— An empirical study on the improvement of listening comprehension ability of high school students ——

Michiaki Azami

1. INTRODUCTION

A test of English listening comprehension has recently been incorporated into the National Center University Entrance Examinations in Japan. Many Japanese high school English teachers therefore are seeking effective ways of improving students' listening comprehension ability. However, according to Inoue (2006), in Japanese high school English classes, students are not given listening comprehension instruction but only given learning materials with CDs to study at home. This is due to the lack of effective ways to teach listening comprehension in English classes and developing them is urgently necessary.

2. DEFINITIONS

2.1 What are suprasegmental features?

Morley (1991) defined suprasegmental features as consisting of stress, rhythm, intonation, etc.

2.2 What is listening ability?

Rost (1990) suggests the listening model to be as follows:

> The notion of metrical patterning is useful for understanding speech perception. Indeed, the metrical pattern of an utterance, which is brought about by the interplay of stressed and de-stressed syllables, has been termed the 'grid against which listeners match their perceptions'. Any utterance can be mapped onto a metrical tree. By using this type of mental map, a listener can employ the concept of stress hierarchy to make sense of an utterance. The listener can rely more on the stable information in the stressed segments, which is relatively unchanged by phonological context. Considering these hierarchically more stable segments first, the listener constructs

a metrical template of the utterance. Listeners who were sure of hearing only the segmental forms for the stressed syllables might still be able to infer the unstressed segments with this type of cognitive template. Activating a metrical template in short-term memory might allow for a delayed decoding of unstressed segments.

Rost (1991) also defined the component skills of listening comprehension as follows:

Perception Skills

1. discriminating between sounds

2. recognizing words

Analysis Skills

3. identifying grammatical groupings of words

4. identifying 'pragmatic units'—expressions and sets of utterances which function as whole units to create meaning

Synthesis Skills

5. connecting linguistic cues to paralinguistic cues (intonation and stress) and to nonlinguistic cues (gestures and relevant objects in the situation) in order to construct meaning

6. using background knowledge (what we already know about the content and the form) and context (what has already been said) to predict and then to confirm meaning

7. recaling important words and ideas

Takefuta (1989) claims that without learning correct and precise pronunciation or utterances, students can construct templates in their minds while listening to distorted pronunciation and utterances.

3. LITERATURE REVIEW

Many researchers support pedagogical practices that emphasize suprasegmental features in teaching pronunciation.

Gilbert (1995) claims:

Word stress is important because English speakers tend to store vocabulary items according to their stress patterns... English speakers help their listeners to follow by grouping words so that they can be more easily processed... in spoken English... listeners must rely entirely on the intonational marks in order to know what words are grouped together. Each thought group has a "focus word" that will receive a pitch peak... The current problem of teaching pronunciation is that learners are unable to

process important grammatical or discourse cohesion signals because of lack of

training in the way spoken English systematically uses such mechanisms as reduction

and intonation marking for emphasis and thought groupings. Traditional

pronunciation teaching concentrates on drilling difficult sound distinctions, but

both listening comprehension and speech clarity could be better served by using class

time for training students to hear and use English signals of rhythm and melody.

Hahn (2004) advocates teaching nonnative speakers suprasegmental features to improve the

intelligibility of their speech. She especially emphasizes the importance of teaching primary

stress because it signals new and contrastive information in English discourse.

Dulton and Seidlhofer (1994) insist on the defect of providing phonetic information only at

the segmental level for non-native speakers as follows:

Second language learners have often not been able to develop intuitions and

expectations about word frequencies, the likelihood that a word will occur in a

particular situation, or even what counts as a standard situation. Non-native

speakers make up for their lack of competence in these two respects by being more

analytical. They rely—often exclusively—on acoustic information alone. Things

are even worse for learners who have been taught with heavy emphasis on correctness

and precision. They suffer a devastating diminution of phonetic information at the

segmental level when they encounter normal speech.

Japanese researchers studied the effects of teaching suprasegmental features (sound change,

intonation and rhythm) on listening comprehension. However, little empirical support exists.

Eshima and Sato (1990) confirmed the suitability of teaching sound changes such as contraction,

elision, assimilation, liaison, and reduction as an aid to improve the listening comprehension

of Japanese high school students. However, their tests included only dictations of simple

sentences. Listening comprehension skills include identifying 'pragmatic units', connecting

linguistic cues to paralinguistic cues and to nonlinguistic cues in order to construct meaning,

using background knowledge and context to predict and then to confirm meaning (Rost 1991).

In terms of test materials, their study was not enough.

Takefuta, Shiina and Takahashi (1988) proved that intonation can be the weak point of Japanese

English learners. However, their subjects were only university students.

Nakano (1995) proved that rhythm instruction is effective in improving learners' listening

comprehension. However, her subjects were only university students and the improvement of the

mean scores between the pretest and the post test was only 1 point on the basis of full marks

of 40.

Some researchers insist that there is a correlation between learners' pronunciation and their listening comprehension.

Ur (1984) claims that it is certainly true that if a foreign learner learns to pronounce the sounds accurately himself, it will be much easier for him to hear them correctly when said by someone else.

Gilbert (1993) says that how you hear English is closely connected with how you speak.

Shimaoka (1996) claims that it is hard for students to listen to and comprehend the sounds that they cannot pronounce well.

4. DEVELOPMENT of DIGITAL CONTENTS

In June 2005, a team of eight English teachers in Tochigi Prefecture and Tokyo decided to develop digital contents centering on the suprasegmental features of English pronunciation as a pedagogical device for listening comprehension.

The digital contents are available at http://www.edusight.net/ (see Appendix 1)

4.1 Structure of the Digital Contents

Each section of the digital contents starts with a video clip in which a native English speaker and a Japanese have a short conversation and the Japanese makes a mistake. A Japanese teacher then explains how such a mistake is made from English phonological point of view. For example, in the assimilation section, when a native English speaker says, "I'll miss you," the Japanese thinks she says "Misshu" (crowded).

Then the section shows typical phonological patterns. The assimilation section consists of "does she", "was shocked", "yes, you", "can you", "last year", "would you" and "write your" are shown. After this instruction learners take down dictations of some English sentences. For instance, in the assimilation section, students listen to such sentences as "Can you help me?", "How old is your daughter?", "Does your daughter listen to music?" and fill in missing words. Finally, they listen to a discourse with the phonological feature and answer comprehension questions. In the assimilation section, students listen to a discourse as follows:

A: May I help you?

B: Yes, please. I'm looking for something for my daughter. Next Sunday is her birthday.

A: How old is your daughter?

B: She's fourteen.

A: How about this ring?

B: Oh, that looks nice. How much is it?

A: It's $300.

B: Well. I don't like the design.

A: Then, how about this bag?

B: OK. How much is it?

A: It's only $200.

B: Let me see. That's a little too big.

A: How about this pen?

B: Can I have a look at it?

A: Yes, you can. Here you are.

B: How much is this?

A: It's $100.

B: Let's see. This is a little too heavy. Oh. How much is this pencil case?

A: It's $3.

B: Oh. This is perfect. I'll take it.

This is an example where, as Rost (1991) defined, students are required to use the context to predict and confirm meaning.

Finally, when students press the marking button, their scores are given to them. The script and the Japanese translation of the discourse are also available on the web page.

4.2 Phonological Features Dealt with in the Digital Contents

Some of the phonological features dealt with in the digital contents are as follows:

In Rhythm section, isochrony will be referred to. Students will learn that stress-pulses occur at regular time intervals, no matter how many unstressed syllables intervene. In the video clip, it will be shown that "Cats eat fish," "Cats will eat fish," "Cats will eat some fish," and "Cats will be eating some fish" all have the same rhythm.

In Stress section, students will learn that stress is put on new or contrastive information. The sentence "I bought a new bag yesterday" will be read differently according to what the new information is.

In Assimilation section, students will look at the fact that in minimizing our efforts in articulation, we tend to make adjacent sounds more like each other. They will learn how to pronounce "Does she", "was shocked", "Yes, you", "Can you", "last year", "Would you" and "Write

your".

In Linking section, students will learn that in minimizing our efforts in articulation, we tend to insert a sound in order to make for a smoother transition. They will learn how the sentence "She worked in an office" will be pronounced.

In Elision section, students will look at the fact that in minimizing our efforts in articulation, we leave a sound out altogether. They will learn how the words and sentences such as "football", "goodbye", "that car", "button", "garden", "hot milk", "gentle", "clean", "bad luck", "I did it", "I didn't know that", "water", and "butter" are pronounced.

In Reduction section, students will learn the fact that in minimizing our efforts in articulation, we tend to pronounce particular sound very weakly. They will learn how to pronounce the sentences "I'm from Los Angeles," "My name is Brown," "I stayed at Hilton Hotel," "I like sushi and tempura."

In Intonation section, students will learn that in spoken English there is no punctuation mark and intonational marks play the role of punctuation marks. They will learn that the sentence "Mr. Jones said our teacher is the criminal" has different meanings according to how it is read.

In Content word section, students will learn that content words, such as nouns, main verbs, adverbs, adjectives, and question words, are usually emphasized.

In Function word section, students will learn that function words, such as pronouns, prepositions, articles, conjunctions, and auxiliary verbs, are usually de-emphasized.

5. The PURPOSE and HYPOTHESES

5.1 The Purpose

The aims of this study are, in an EFL environment: (1) to clarify the difference, in test performance, between the subjects who listen to discourses and solve comprehension questions and those who learn suprasegmental features of English pronunciation, listen to discourses, and solve comprehension questions, (2) to clarify the difference, in test performance, between the subjects who learn suprasegmental features of English pronunciation, listen to discourses, and solve comprehension questions and those who learn suprasegmental features of English pronunciation, listen to discourses, solve comprehension questions, and read the text aloud, and (3) to clarify the correlation, in test performance, between subjects' pronunciation and their listening comprehension.

5.2 The Hypotheses

In this study, three hypotheses are posited.

Hypothesis (1): Teaching suprasegmental features of English pronunciation is effective in teaching listening comprehension to high school students.

Hypothesis (2): Having students read the text aloud is effective in teaching listening comprehension to high school students.

Hypothesis (3): There is a correlation between high school students' pronunciation and their listening comprehension.

In (1) and (2), the results were determined by the listening comprehension test (see Appendix 2). In (3), the results were determined by the reading aloud test (see Appendix 3) and the listening comprehension test.

6. EXPERIMENT

6.1 Subjects

115 first-year students at Ochanomizu University Senior High School were designated as experimental group 1 (38 students), experimental group 2 (39 students) and the control group (38 students).

6.2 Experiment Period: From April 12, 2006 to June 22, 2006

6.3 Materials

6.3.1 Rhythm, Stress, Assimilation, Linking, Elision 1, Elision 2, Reduction, Intonation 1 and Intonation 2 sections were studied by the three classes in the school language laboratory.

6.3.2 The listening portion of the 5th Global Test of English Communication (GTEC) was used for the pretest and the post test. (see Appendix 2)

6.3.3 The reading aloud task "Four seasons in Japan" was given to students for each reading aloud test. (see Appendix 3)

6.3.4 A post experiment questionnaire with Likert-type scale was used to collect feedback from students on the classroom instruction. (see Appendix 4)

6.4 Procedure

6.4.1 Pretests

The control group and the experimental groups took the listening part of the 5th GTEC on April 12, 2006. The test paper and the answer sheet were given in class and collected after the test.

The control group and experimental group 2 took the reading aloud test on May 25, 2006. The subjects were seated in language laboratory booths and each subject's utterances were recorded on cassette tapes.

6.4.2 Instruction

This experiment was conducted in Kyoyo Kiso English I (1 credit) classes, where subjects are provided with authentic listening materials in *Michigan Action English Workbook 1* published by World Times to study individually at home. In class, subjects took a test to confirm that they had studied the materials at home, and then the digital contents of this study were taught by the researcher with a computer and a projector in the language laboratory once a week.

The control group listened to only the discourse form the digital contents of this study and solved the comprehension questions of the digital contents in class.

Experimental group 1 watched the video clips which illustrate the phonological features, listened to the discourse and solved the comprehension questions in class.

Experimental group 2 watched the same video clips, listened to the discourse, solved the comprehension questions and read the script aloud in class.

6.4.3 Post test

The control group and experimental group 1 took the listening part of the 5th GTEC for a second time on June 21, 2006. Experimental group 2 took the listening part of the 5th GTEC for a second time on June 22, 2006. The test paper and the answer sheet were given in class and collected after the test.

The control group took the reading aloud test on June 21, 2006. Experimental group 2 took the reading aloud test on June 22, 2006. The subjects were seated in language laboratory booths and each subject's utterances were recorded on cassette tapes.

Recorded utterances were evaluated by three raters excluding the researcher. All the raters are high school English teachers. Two of the raters have master's degrees in English

education and the other rater has more than twenty years of English teaching experience in Japan. They evaluated the utterances on a fifteen-point scale: 10 checkpoints and 5 impression points (5 points for native-like pronunciation, 1 for poor pronunciation). The inter-rater reliability was high (pretest N=77, r=.78 post test N=77, r=.80 [Spearman Brown Prophecy Formula]). The averages of the three raters' evaluations were employed as the scores of the subjects' pronunciation abilities.

Experimental group 1 answered a post experiment questionnaire with Likert-type scale to collect feedback on the classroom instruction on June 21, 2006. Experimental group 2 answered the same post experiment questionnaire on June 22, 2006.

7. RESULTS

7.1 The 5th GTEC

The first dependable variable under consideration was the scores of the 5th GTEC as pretest and post test. The highest possible score on the pretest and the post test was twenty points respectively. Descriptive statistics for the pretest and the post test appear in TABLE 1. As can be seen in FIGURE 1, the subjects in all the three groups performed better in the post test than in the pretest. Two-factor repeated measure analysis of variance (ANOVA) showed statistically significant differences in the mean scores of the pretest and the post test (within-subject factor) $[F(1, 112) = 38.647, MSe = 3.227, p < .01]$. However, two-factor repeated measure ANOVA showed no statistically significant differences among the three groups both in the pretest and the post test (between-subjects factor) $[F(2, 112) = 1.852, MSe = 22.724, n.s.]$.

7.2 Reading Aloud Test

The second dependable variable under consideration was the scores of the reading aloud tests as pretest and post test. The highest possible score on the pretest and the post test was fifteen points respectively. Descriptive statistics for the pretest and the post test appear in TABLE 3. As can be seen in FIGURE 2, the subjects in experimental group 2 performed better in the post test than those in the control group. Two-factor repeated measure ANOVA showed statistically significant differences between the mean scores of the post test (between-subjects factor) $[F(1, 73) = 6.740, MSe = 12.802, p < .05]$. In addition, two-factor repeated measure ANOVA showed statistically significant differences between the

TABLE 1 Statistical Values of the 5th GTEC

	Class	mean	S. D.	N
Pretest	Control Group	9.6579	3.39536	38
	Experimental Group 1	10.4474	4.12440	38
	Experimental Group 2	11.4872	3.25958	39
	Total	10.5391	3.65697	115
Post test	Control Group	11.4737	3.59983	38
	Experimental Group 1	11.9474	3.79863	38
	Experimental Group 2	12.5897	3.37731	39
	Total	12.0087	3.59213	115
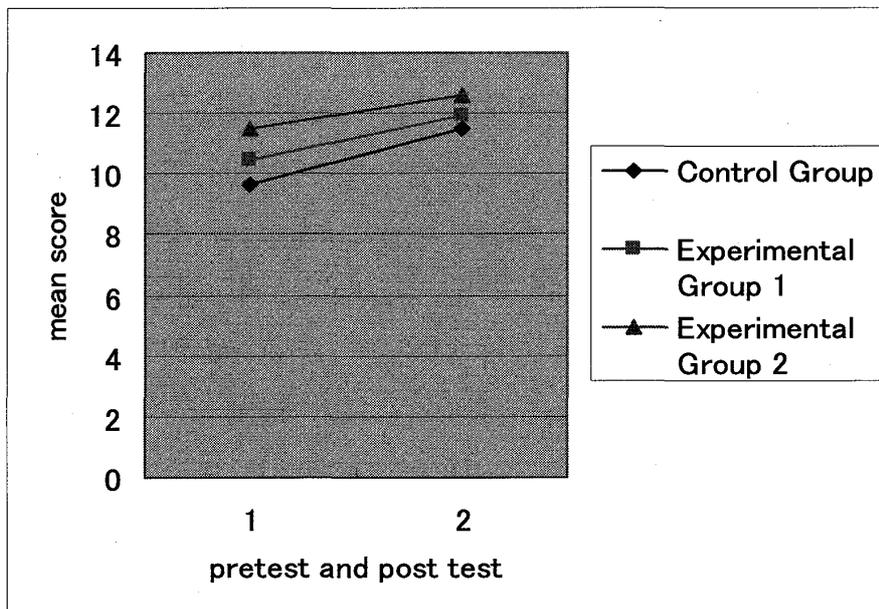
FIGURE 1 Profile of Mean Scores

TABLE 2 Analysis of the 5th GTEC

Source	SS	df	MS	F
Between-subjects factor				
Class	84.148	2	42.074	1.852 n. s.
Error	2545.095	112	22.724	
Within-subject factor				
Test	124.704	1	124.704	38.647 p<.01
Test×Class	4.922	2	2.461	.763 n. s.
Error	361.400	112	3.227	
Total	3120.269	229		

mean scores of the pretest and the post test in experimental group 2 (between-subjects factor) [F(1, 73)=34.942, MSe=1.168, p<.01].

TABLE 3 Statistical Values of the Reading Aloud Test

	Class	N	mean	S. D.
Pretest	Control Group	38	6.0702	2.74125
	Experimental Group 2	37	6.9910	2.63931
	Total	75	6.5244	2.71309
Post test	Control Group	38	6.5175	2.58629
	Experimental Group 2	37	8.6306	2.60079
	Total	75	7.5600	2.78680
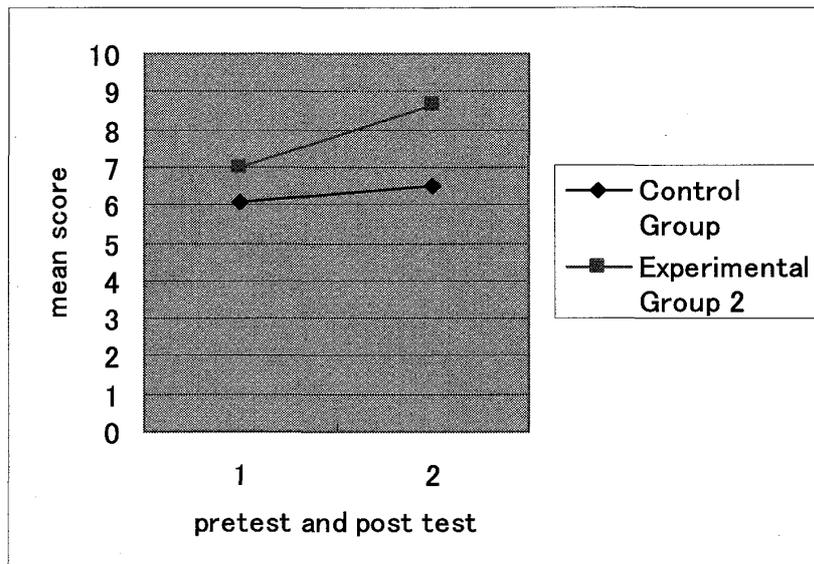
FIGURE 2 Profile of Mean Scores

TABLE 4 Analysis of the Reading Aloud Test

Source	SS	df	MS	F
Between-subjects factor				
Class	86.277	1	86.277	6.740 p<.05
Error	934.511	73	12.802	
Within-subject factor				
Test	40.827	1	40.827	34.942 p<.01
Test×Class	13.324	1	13.324	11.404 p<.01
Error	85.295	73	1.168	
Total	1160.234	149		

7.3 A Post Experiment Questionnaire

7.3.1 The questionnaire

Six questions with Likert-type scale were given to experimental group 1 and experimental group 2 as a post experiment questionnaire to collect feedback on the classroom instruction. The following is the results of the questionnaire.

1 "strongly agree" 2 "agree" 3 "undecided" 4 "disagree" 5 "strongly disagree"

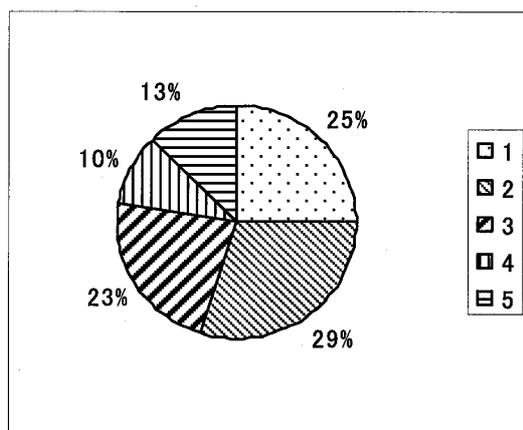(1)　I didn't know about rhythm, intonation, stress or sound changes before the class began.
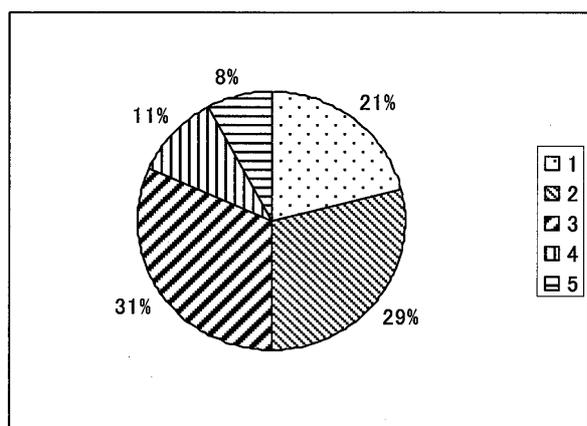
Experimental Group 1
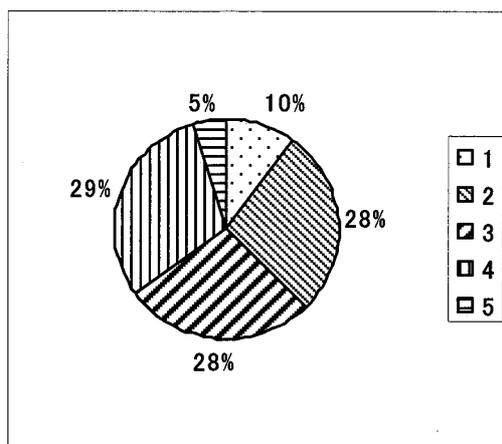
Experimental Group 2

(2)　The knowledge about rhythm, intonation, stress and sound changes was helpful in listening comprehension.
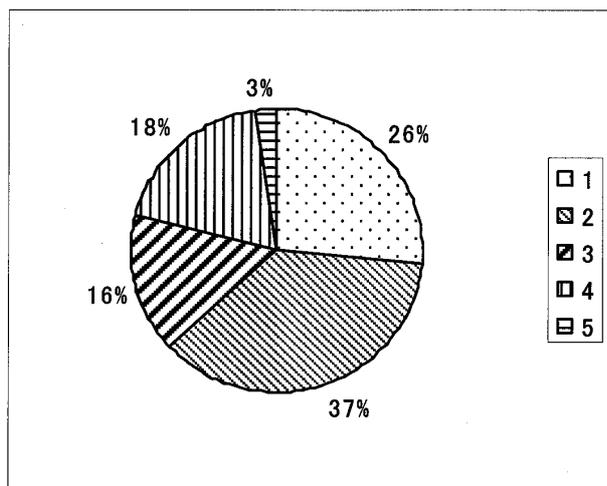
Experimental Group 1

Experimental Group 2

(3) I actively participated in listening comprehension exercises after I learned about rhythm, intonation, stress and sound changes.
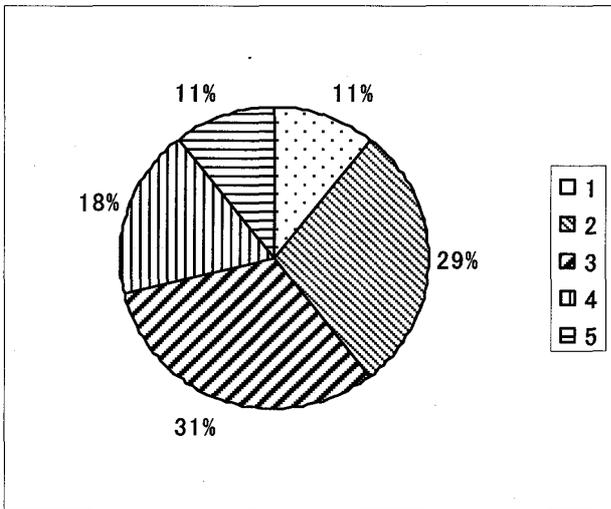
8%   8%

21%

26%

□ 1
⊠ 2
▨ 3
⊞ 4
⊟ 5
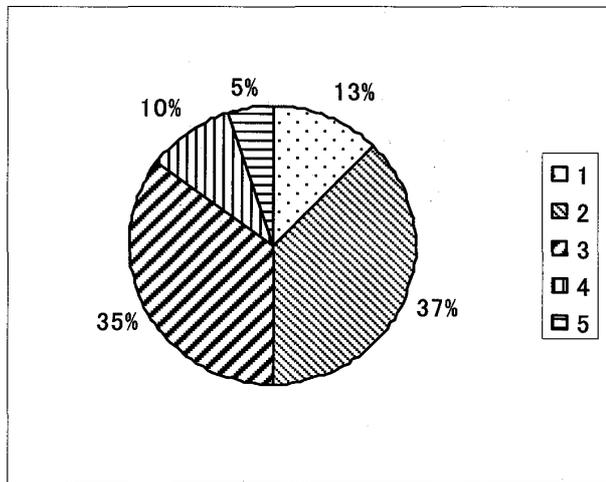
37%

Experimental Group 1

3%   15%

23%

29%

□ 1
⊠ 2
▨ 3
⊞ 4
⊟ 5

30%
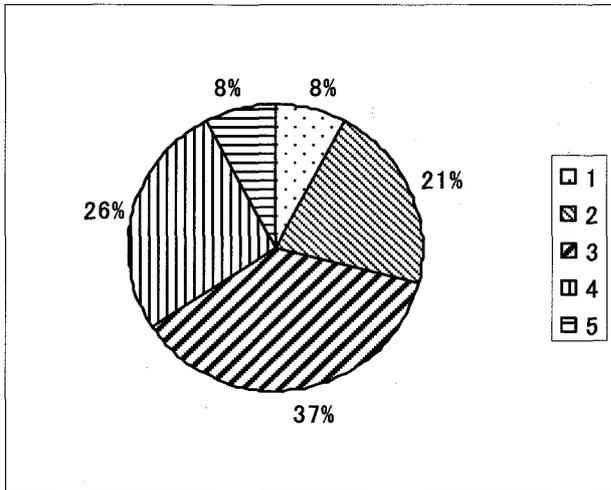
Experimental Group 2

(4) I became able to read aloud better after I learned about rhythm, intonation, stress and sound changes.

11%   11%

18%

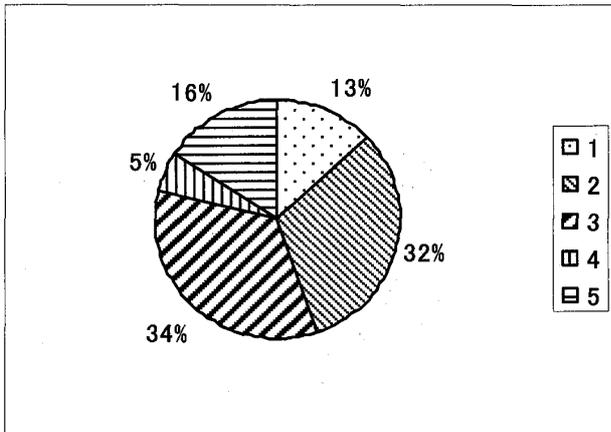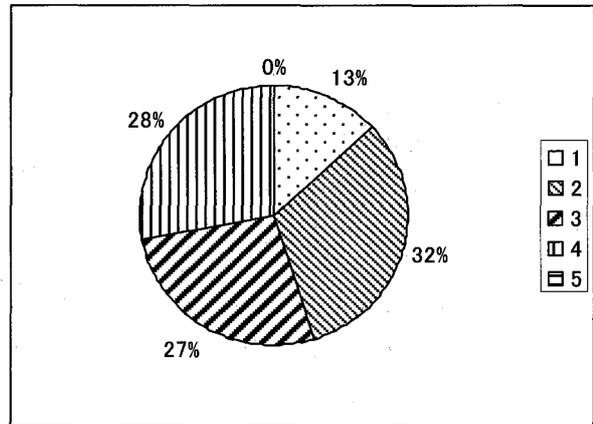29%

□ 1
⊠ 2
▨ 3
⊞ 4
⊟ 5

31%

Experimental Group 1

5%   13%

10%

37%

□ 1
⊠ 2
▨ 3
⊞ 4
⊟ 5

35%

Experimental Group 2

(5) I came to participate actively in reading aloud exercises after I learned about rhythm, intonation, stress and sound changes.
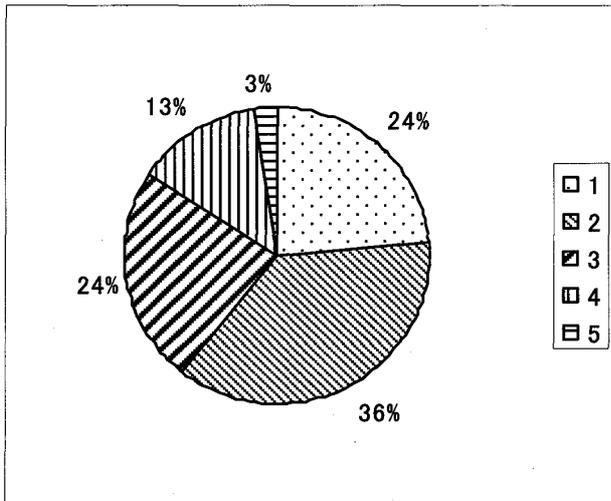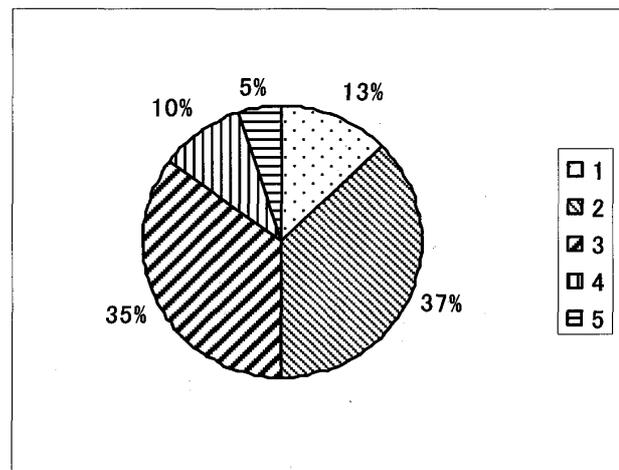

Experimental Group 1   Experimental Group 2

(6) The Kyoyo Kiso English I classes were helpful to my English studies.

Experimental Group 1   Experimental Group 2

7.3.2 The analysis of the questionnaire

The post experiment questionnaire revealed that the subjects in experimental group 1 and those in experimental group 2 had a significant difference in their attitudes toward question 5, "I came to participate actively in reading aloud exercises after I learned about rhythm, intonation, stress and sound changes." Significantly fewer subjects in experimental group 2 strongly disagreed with the question than those in experimental group 1 [$\chi^2(4, N=77)=11.529$, $p<.05$].

7.3.3 Subjects' comments on the instruction

The subjects in experimental group 1 and experimental group 2 gave comments on the instruction as follows.

· My pronunciation has improved.   [2], 54.1 (12→15), 40.6 (7→8)

· I have come to realize linking and other features of English sounds [5], 56.8 (13→9) 48.7 (10→12) 59.5 (14→13) 73.0 (19→20) 43.3 (8→8)

· I have come to read aloud with a consciousness of suprasegmental features.   [2], 51.4 (11 →14) 48.7 (10→14)

· I have come to work on the listening comprehension exercises positively.   [1], 46.0 (9 →7)

· I have become better at pronouncing linking features than before.   [3], 46.0 (9→12) 48.7 (10→9) 40.6 (7→16)

· I have become aware of the suprasegmental features and it has become easier for me to listen to English sounds.   [5], 51.4 (11→16) 67.6 (17→15) 62.2 (15→15) 46.0 (9→13) 48.7 (10 →8)

· I have become a better reader after I learned the rhythm and intonational patterns of English.   [2], 37.9 (6→12) 48.7 (10→9)

· I have become able to understand spoken English after I learned the rhythm and intonational patterns.   [2], 51.4 (11→14) 46.0 (9→11)

· Now I know people place stress on some parts because they are important.   [1], 51.4 (11 →10)

· I have come to realize the words that I could not do so before.   [1], 46.0 (9→5)

· Now I know that English is not read according to the spelling but that the sounds are sometimes linked together and stressed or destressed.   [1], 40.6 (7→8)

· I had difficulty in picking up English sounds when they were read naturally, but I have gradually become able to do so.   [2] 64.9 (16→16), 73.0 (19→19)

· The instruction was helpful in understanding English from different points of view because I had only studied written English before.   [1], 67.6 (17→15)

· I have come to like English and understand the English in movies.   [1], 43.3 (8→8)

· The pictures were hard to see. We needed handouts.   [2], 48.7 (10→14) 64.9 (16→16)

· Acquiring knowledge about suprasegmental features is not enough.   I cannot understand what is said when spoken naturally.   [2], 40.6 (7→9) 56.8 (13→16)

· The instruction was not effective because I lack knowledge about English grammar.   [1],

56.8 (13→12)

・My listening comprehension has become worse as I increased my consciousness of pronunciation. [1], 67.6 (17→15)

・I am not accustomed to English pronunciation and I cannot recall the instruction while I am listening to English sounds. [1], 40.6 (7→11)

・I need to build up my vocabulary before I learn listening comprehension. [1], 29.8 (3→8)

 * The figure in brackets [ ] indicates the number of learners who gave the comment.

 * The figure before the parentheses ( ) indicates the deviation of the pretest among all the subjects.

 * The figures in parentheses ( ) indicate the shift of the scores between the pretest and the post test for the students who made the comment.

8. DISCUSSION

8.1 Discussion of hypothesis (1)

Subjects in the experimental groups improved their listening comprehension ability after the instruction of suprasegmental features of English pronunciation, but those in the control group also improved their listening comprehension ability after the listening comprehension practice. With these results, the improvement of the experimental groups' listening comprehension ability cannot be attributed to the instruction of suprasegmental features of English pronunciation. Therefore it cannot be concluded from what has been studied, that teaching suprasegmental features of English pronunciation is effective in teaching listening comprehension to high school students. There seem to be three causes for this.

8.1.1 The problem of experimental groups and control group

A genuine control group was not created because all the subjects in the experimental groups and the control group were also provided with World Times' *Michigan Action English Workbook 1* to study individually at home. This assignment might have had a greater effect on the improvement of subjects' listening comprehension ability than the listening comprehension instruction in class.

8.1.2 Limitations of this experiment

Azami (2005) proved that the digital contents developed for this study are more effective

when they are studied individually. However, a lack of computers prevented the researcher from using them in the experiment.

8.1.3 Validity of the test

In the post experiment questionnaire, five subjects commented that they had become aware of the suprasegmental features and that it had become easier for them to differentiate English sounds. One subject wrote that she had come to realize the words that she could not do so before. Also, two subjects commented that they had had difficulty picking up English sounds when spoken naturally, but that they had gradually become able to differentiate them. However, six of them recorded of the same score or lower on the post test than that in the pretest. This might mean that the 5th GTEC was reliable but was not valid to evaluate subjects' listening comprehension ability.

8.2 Discussion of hypothesis (2)

There was no significant difference between the mean scores of experimental group 1 and experimental group 2 in the post test. The result destroyed the prerequisite for hypothesis (2). Therefore it cannot be concluded that reading the text aloud is effective in teaching listening comprehension to high school students. This seems to have been caused by the same factors as discussed with hypothesis (1). Both the subjects in the experimental groups and the control group improved their listening comprehension ability after the instruction.

8.3 Discussion of hypothesis (3)

According to the results of the reading aloud test, teaching suprasegmental features of English pronunciation was effective in improving subjects' pronunciation ability. However, subjects in both the experimental groups and the control group had improved their listening comprehension ability at the end of the study. These results destroyed the prerequisite for hypothesis (3). Therefore it cannot be concluded that there is a correlation between high school students' pronunciation and their listening comprehension.

9. FURTHER STUDY

This study used the digital contents in class with all the subjects seeing the same screen and just a few subjects answering the comprehension questions. In addition, as one comment in the post experiment questionnaire showed, the pictures were too small and hard to see. This situation

may have contributed to a demotivation concerning the listening comprehension lessons.

Though the hypotheses were not supported by this experiment, many subjects gave positive comments on the instruction of suprasegmental features. These comments suggest that the instruction of suprasegmental features of English pronunciation may in fact be effective in teaching listening comprehension to high school students. Adopting listening comprehension tests other than the listening part of the GTEC may be one way of attaining the data to prove this.

Furthermore, the fact that all subjects also studied the *Michigan Action English Workbook 1* individually at home prevented the classes from being genuine experimental and control groups.

Therefore, three facets for further study are posited:

(1) Personal computers should be used, and all the subjects should learn the suprasegmental features and solve the listening comprehension questions individually.

(2) A more valid listening comprehension test should be sought.

(3) High schools where additional listening comprehension studies are not conducted should be sought to create genuine experimental and control groups.

BIBLIOGRAPHY

秋川卓也 (2005)『文系のためのＳＰＳＳ超入門』大阪：プレアデス出版

Azami, M (2005) Suprasegmentals Centered Instruction with Digital Contents 『お茶の水女子大学
　附属高等学校研究紀要　第51巻』

Brown, G. (1990) *Listening to Spoken English* (2nd ed.), New York: Longman

Dalton, C. & Seidlhofer, B. (1994) *Pronunciation* Oxford: Oxford University Press

Eshima, T. & Sato, Y. (1990) The sound change centered instruction: A study on the improvement
　of English listening ability. *Language Laboratory*, 27, pp. 117-131

Gilbert, J. (1993) *Clear Speech Student's Book*. 2nd ed. New York: Cambridge University Press

Gilbert, J. (1995) Pronunciation Practice as an Aid to Listening Comprehension. *A Guide for the
　Teaching of Second Language Listening* San Diego: Dominie Press pp. 97-112

Hahn, L. (2004) Primary stress and intelligibility: research to motivate the teaching of
　suprasegmentals. *TESOL Quarterly, Vol. 38*, No. 2, Summer 2004

井村元道 (2003)『日本の英語教育200年』東京：大修館書店

井上貞明 (2006)「英語教師　質向上の契機に」『読売新聞』p. 9, January 30

磯田貴道・廣森友人 (2004)『英語教師のための教育データ分析入門』東京：大修館書店

岸学 (2005)『ＳＰＳＳによるやさしい統計学』東京：オーム社

清川英男 （1990）『英語教育研究入門』東京：大修館書店

清川英男 （2003）『英語教師のためのExcel活用法』東京：大修館書店

松坂ヒロシ （1986）『英語音声学入門』東京：研究社出版

松澤喜好 （2004）『英語耳　発音ができるとリスニングができる』東京：アスキー

Morley, J. (1991) The pronunciation component in teaching English to speakers of other languages.
   TESOL Quarterly, Vol.25, No.3, Autumn 1991

武井照江 （2002）『英語リスニング論』東京：河源社

Ur, P. (1984) *Teaching Listening Comprehension*, New York: Cambridge University Press

Rost, M. (1990) *Listening in Language Learning*, New York: Longman

Rost, M. (1990) *Listening in Action*, Prentice Hall International (UK) Ltd.

島岡丘 （1996）「聞き取り能力をどうつけさせるか」『英語教育』July 1996

島岡丘 （1997）『カナ活用　英語のリズムとレダクション』東京：洋販出版

島岡丘 （2004）『日本語からスーパーネイティブの英語へ』東京：創拓社出版

静哲人 （1997）『カタカナでやさしくできるリスニング』東京：研究社出版

竹林滋 （1996）『英語音声学』東京：研究社

竹蓋幸生，椎名紀久子，高橋秀夫 （1988d）「イントネーションの指導」『言語行動の研究』第1号：千葉
   大学，pp.59-63

竹蓋幸生 （1989）『ヒアリングの指導システム』東京：研究社出版

田中敦英、坂口辰久、平田敦子、浅見道明 （2006）「センター試験リスニングテストの「傾向」」『ＥＬＥ
   Ｃ同友会英語教育学会　第12回研究大会　大会要項』：ＥＬＥＣ同友会英語教育学会，pp.40-46

鵜田豊 （2004）『英語のリスニングは発音力で決まる！ＵＤＡ式30音練習帳』東京：ジャパンタイムス

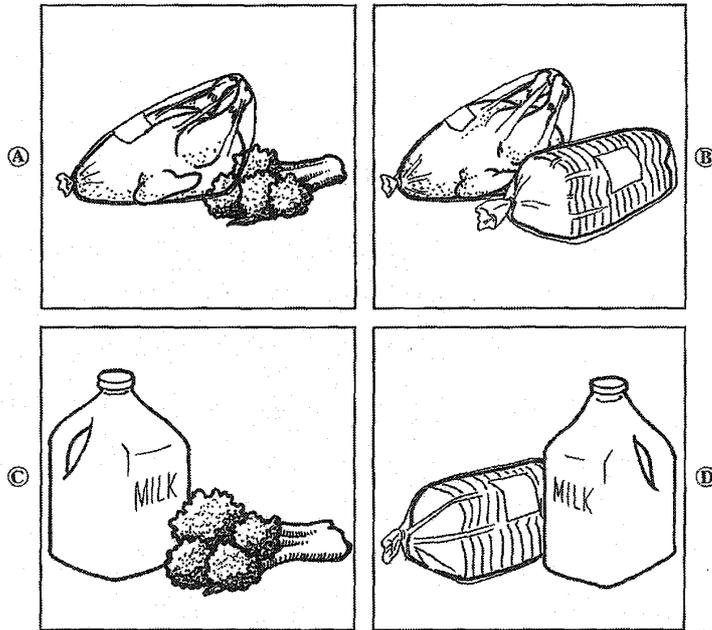渡辺浩行 （1994）『英語教師の四十八手　リスニングの指導』：東京研究社

吉田一衛 （1984）『英語のリスニング』東京：大修館書店

Appendix 1

Appendix 2

Questions 21 & 22

あなたはアメリカにホームステイ中です。ある日の午後、ホストマザーが仕事先からあなたに電話をかけてきて、あなたに何か頼み事をしています。まず、ホストマザーから話します。

21. What will you get at the store?

[A] Ⓐ
[B] Ⓑ
[C] Ⓒ
[D] Ⓓ

次のページに進みなさい。

Appendix 3 Four Seasons in Japan

There are four seasons in a year — spring, summer, fall and winter. Each season has three months; March, April, and May are spring months. In spring plants and trees wake up from a long winter's sleep. In April the cherry-trees are in full bloom. Parks are filled with people enjoying the warmth of the season.

In June the rainy season begins. The sky is overcast and we have very few sunny days for nearly a whole month. Then summer comes with hot days and occasional showers. Boys and girls go swimming or mountain-climbing. The lakes near Mt. Fuji attract many campers. There they enjoy the cool air and the beauty around them.

In September typhoons hit, causing damage to buildings and crops. Yet, fall is one of the best seasons of the year — with its clear blue sky and fine cool days. The trees in the woods are colorful indeed. Here and there over the mountain slopes reddish maple leaves are seen even in the distance.

In December, the last month of the year, it gradually gets colder. But winter holidays are welcome! Housewives start to prepare for New Year's Day. In the New Year Season families go to shrines, visit their relatives and exchange greetings with one another.

Winter seems long, but when winter comes, can spring be far behind?

* underlined parts are the checkpoints

Appendix 4

教養基礎英語 I 授業アンケート

このアンケートは成績とは一切関係ありません。正直に答えてください。

以下の自分の考えに当てはまる番号を〇で囲んでください。

1　全くそう思う　　2　ややそう思う　　3　どちらとも言えない　　4　ややそう思わない

5　全くそう思わない

1．リズム・イントネーション・ストレス・音声変化について以前は知らなかった

　　1－2－3－4－5

2．リズム・イントネーション・ストレス・音声変化についての知識はリスニングを行う上で役に立った

　　1－2－3－4－5

3．リズム・イントネーション・ストレス・音声変化について知ってからリスニングを積極的に行った

　　1－2－3－4－5

4．リズム・イントネーション・ストレス・音声変化について知ってから英文の音読ができるようになった

　　1－2－3－4－5

5．リズム・イントネーション・ストレス・音声変化について知ってから英文の音読を積極的にするようになった

　　1－2－3－4－5

6．教養基礎の授業は自分の英語学習に役に立った　　1－2－3－4－5

7．役に立ったと思う人はどの点でですか、具体的に書いてください。

_____

8．役に立たなかったと思う人はどのような点ですか、具体的に書いてください。

_____