Recognition of Flapped /t/ by Japanese University Students

HAYASHI, Kyoko

I. Introduction

English phonemes are realized as different phones according to their position in a word or two words. For example, /l/ is realized as [l] when a vowel follows it and as [1] when it appears before a consonant or is in word-final position. Among all the phonemes in English, /t/ is the most susceptible to other preceding or following sounds and has many allophones. Because of this, many Japanese learners of English may have difficulty in understanding listening in English correctly. In an English class at a university, I was very surprised that a student could not recognize the word “party.” In the class, we were working on an activity which we tried to find out where the two characters in the textbook first met after listening to a short English conversation. Although the word “party” was pronounced clearly and it did not seem difficult to recognize it, the student who was told to answer said that she did not know. She was made to listen to only the word “party” repeatedly, but she could not answer.

At first, it seemed to be quite a surprise that the student could not recognize “party” although she learned the word in junior high school and it is daily used as a Japanese word. However, considering that “party” was pronounced in American English, that is, /t/ was realized as [r] in the word, it may have been difficult for the student to recognize the produced word as “party.” This assumption made me decide to investigate how [r] affects listening comprehension by Japanese learners of English.

In this paper, we would like to see whether [r] makes it difficult for Japanese learners of English to recognize the words including [r] and if so, we will consider how we should teach them [r] in listening comprehension classes based on the data collected in two English classes at a university.

II. [r]

In English, [r] is an allophone of /t/ and /t/ is not always realized as [r]. There are three conditions under which [r] occurs:
1. Within a word
   a. In the environment where /t/ follows a stressed vowel and precedes an unstressed vowel
   b. In the environment where /t/ is between two unstressed vowels
2. In two successive words
   In the environment where /t/ is in word-final position of the preceding word and the following word begins with a vowel

We have to add that [r] is realized in North American English.

[r] is recognized as a flap. When we produce [r], the tip of the tongue momentarily touches the alveolar ridge. We can hear this sound in the word “water,” “latter,” and so on. Many researchers indicate that it is sometimes difficult for Japanese to distinguish “Betty,” “berry,” and “belly” because [r] is similar to the Japanese consonant used in “ra” line and Japanese does not distinguish /l/ and /r/. However, there are few detailed studies about the recognition of [r] by Japanese learners of English. Therefore, we would like to see a concrete percentage of students who could recognize the words including [r] correctly and errors which the students made later.

III. Method

1. Research Question

In this study, we would like to investigate the following question:

Can Japanese university students aurally recognize the words with /t/ which they know even if /t/ is realized as [r]?

2. Classes and Students

In order to answer the research question above, dictation was carried out in two classes for TOEIC preparation in a university. In these two classes, we worked on the same tasks, using the same textbook\(^1\). We dealt with listening tasks and grammar practice every other week, but even in the week we worked on grammar tasks, we gave students listening tasks using handouts\(^2\) in order to improve their listening ability and to keep them from being bored.

56 students were registered in each class and about 50 students came every week in one class and about 40 came to the other. Their English ability differed greatly. Some had experience of studying abroad, but others had difficulty in understanding simple English which should have been learned in junior high school. Most of them were motivated and worked hard, but some were not. 96 out of 112 students were

—16—

\(^{1}\) Total Strategy for the TOEIC Test  Seibido, 2006

\(^{2}\) Listen to this! Basic  Seibido, 2004

Basic Skills for Reading  Seibido, 2003
freshmen, 7 were sophomores, 6 were juniors, and also there were 3 seniors who had never appeared. In this study, the answers by 81 students who worked every dictation task will be analyzed.

3. Dictation

Before every class, we prepared a script for dictation. The scripts were printed in the teachers’ manual and they were made into ones that had many blanks. In the blanks, some of the words including /t/ (3) and some other words not including /t/ were supposed to be filled in. In class, we listened to the CD (4) twice and students wrote a word in each blank. In order to give the students time to think and write, a pause was made at the end of each sentence. After we finished the listening task, the teacher wrote the correct answers on the whiteboard and students corrected their answers if they were wrong. The teacher collected the script paper when the students finished correcting. The teacher took the script paper back home and checked how many students could write correct answers. She also wrote down all the wrong answers and analyzed why they made mistakes. After the listening task, the teacher told the students to write the meanings of the words including [r] which appeared in the dictation in order to check whether the students actually knew the words. We analyzed only the words which all the students knew. The results of the analysis will be presented in the next chapter.

4. Realization of /t/ and Environments

When we analyze the data, we should consider how /t/ was actually realized:

1. /t/ realized as [r]
   1-a. /t/ following a stressed vowel and preceding an unstressed vowel.
   1-b. /t/ between two unstressed vowels
   1-c. /t/ in word-final position and followed by a vowel in the following word

2. /t/ realized as [t]
   2-a. /t/ in word-initial position
   2-b. /t/ in word-medial position
   2-c. /t/ in word-final position

3. /t/ realized as [tʰ]
   3-a. /t/ in word-initial position
   3-b. /t/ in word-medial position

4. /t/ realized as [t']
   /t/ in word-final position

(3) /t/ was realized as [r], [t], [tʰ], or [t'], according to the environment where /t/ was in.
(4) The scripts were read in American English, at a speed of about 157 words per minute.
(5) There are some words whose /t/ realize as [t'] in word-medial position, but we could not find the words in the materials which we used in this study.
IV. Result

The number of correct and wrong answers in environment 1-a is shown below. As for the mistakes of spelling, the mistakes which were decided that students definitely knew the answer but just made a mistake when they spelled the word were regarded as correct answers. For example, if a student wrote “univercity” where he/she should have written “university,” the answer was decided to be correct.

<table>
<thead>
<tr>
<th>words</th>
<th>correct answers</th>
<th>wrong answers</th>
<th>environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>beautiful</td>
<td>81 (100%)</td>
<td>0</td>
<td>1-a</td>
</tr>
<tr>
<td>meeting</td>
<td>81 (100%)</td>
<td>0</td>
<td>1-a</td>
</tr>
<tr>
<td>getting</td>
<td>73 (90%)</td>
<td>8</td>
<td>1-a</td>
</tr>
<tr>
<td>sitting</td>
<td>72 (89%)</td>
<td>9</td>
<td>1-a</td>
</tr>
<tr>
<td>better</td>
<td>70 (86%)</td>
<td>11</td>
<td>1-a</td>
</tr>
<tr>
<td>thirty</td>
<td>69 (85%)</td>
<td>12</td>
<td>1-a</td>
</tr>
<tr>
<td>started</td>
<td>64 (79%)</td>
<td>17</td>
<td>1-a</td>
</tr>
<tr>
<td>city</td>
<td>59 (73%)</td>
<td>22</td>
<td>1-a</td>
</tr>
<tr>
<td>water</td>
<td>57 (70%)</td>
<td>24</td>
<td>1-a</td>
</tr>
<tr>
<td>letters</td>
<td>45 (56%)</td>
<td>36</td>
<td>1-a</td>
</tr>
<tr>
<td>waiting</td>
<td>36 (44%)</td>
<td>45</td>
<td>1-a</td>
</tr>
<tr>
<td>item</td>
<td>3 (4%)</td>
<td>78</td>
<td>1-a</td>
</tr>
</tbody>
</table>

As the table above shows, the number of the students who could write the correct answer varies widely in this environment.

The number of correct and wrong answers in environment 1-b is shown below.

<table>
<thead>
<tr>
<th>words</th>
<th>correct answers</th>
<th>wrong answers</th>
<th>environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>university</td>
<td>80 (99%)</td>
<td>1</td>
<td>1-b</td>
</tr>
<tr>
<td>quality</td>
<td>35 (43%)</td>
<td>46</td>
<td>1-b</td>
</tr>
</tbody>
</table>

As for these two words, the number of correct answer differs greatly.
The number of correct and wrong answers in environment 1-c is shown below.

Table 3: Words with /t/ which realized as [r] and whose environment is 1-c and the number of correct and wrong answers

<table>
<thead>
<tr>
<th>words</th>
<th>Correct answers</th>
<th>Wrong answers</th>
<th>environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>what (about)</td>
<td>73 (90%)</td>
<td>8</td>
<td>1-c</td>
</tr>
<tr>
<td>part (of)</td>
<td>41 (51%)</td>
<td>40</td>
<td>1-c</td>
</tr>
<tr>
<td>out (on)</td>
<td>25 (31%)</td>
<td>56</td>
<td>1-c</td>
</tr>
<tr>
<td>get (away)</td>
<td>78 (96%)</td>
<td>3</td>
<td>1-c</td>
</tr>
<tr>
<td>it (all)</td>
<td>25 (31%)</td>
<td>56</td>
<td>1-c</td>
</tr>
</tbody>
</table>

Also in this environment, the number of correct answers is different among the words.

The number of correct and wrong answers in environments 2-a, 2-b, 2-c, 3-a, 3-b, and 4 is shown below.

Table 4: Words with /t/ which realized as [t], [tʰ], or [tʰ] and whose environment is 2-a through 4 and the number of correct and wrong answers

<table>
<thead>
<tr>
<th>words</th>
<th>correct answers</th>
<th>wrong answers</th>
<th>environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>today</td>
<td>81 (100%)</td>
<td>0</td>
<td>2-a</td>
</tr>
<tr>
<td>twelve</td>
<td>68 (84%)</td>
<td>13</td>
<td>2-a</td>
</tr>
<tr>
<td>standing</td>
<td>80 (99%)</td>
<td>1</td>
<td>2-b</td>
</tr>
<tr>
<td>stores</td>
<td>75 (93%)</td>
<td>6</td>
<td>2-b</td>
</tr>
<tr>
<td>stand</td>
<td>74 (91%)</td>
<td>7</td>
<td>2-b</td>
</tr>
<tr>
<td>afternoon</td>
<td>80 (99%)</td>
<td>1</td>
<td>2-b</td>
</tr>
<tr>
<td>between</td>
<td>64 (79%)</td>
<td>17</td>
<td>2-b</td>
</tr>
<tr>
<td>night</td>
<td>75 (93%)</td>
<td>6</td>
<td>2-c</td>
</tr>
<tr>
<td>left</td>
<td>79 (98%)</td>
<td>2</td>
<td>2-c</td>
</tr>
<tr>
<td>different</td>
<td>79 (98%)</td>
<td>2</td>
<td>2-c</td>
</tr>
<tr>
<td>take</td>
<td>78 (96%)</td>
<td>3</td>
<td>3-a</td>
</tr>
<tr>
<td>told</td>
<td>74 (91%)</td>
<td>7</td>
<td>3-a</td>
</tr>
<tr>
<td>top</td>
<td>77 (95%)</td>
<td>4</td>
<td>3-a</td>
</tr>
</tbody>
</table>
As is shown in the table above, the number of correct answers is quite large compared with the environments 1-a, 1-b, and 1-c.

V. Discussion

1. Answer to the Research Question

The answer to the research question we presented in Chapter III, “Can Japanese university students aurally recognize the words with /t/ which they know even if /t/ is realized as [r]?” is “Partially yes,” considering the results presented in the previous chapter.

As is shown in Table 1, all the students recognized the words “beautiful” and “meeting” and more than 70 students could recognize the words “getting” and “sitting.” This result made me think that [r] does not affect the recognition of the words. However, as for the word “item,” there were only 3 students who could recognize it even though we use the word as Japanese katakana, one of three writing systems in Japanese language. In addition, in all the environments which /t/ was realized as [r], the number of correct answers differs greatly among the words. Moreover, considering the environments throughout 2-a to 4, where /t/ was not recognized as [r], the number of correct answers is quite large through all the words. Taking this into consideration, it can be said that [r] makes it difficult for university students to recognize the words with [r]. Therefore, we have to answer “Partially yes” to the research question.

2. Environments and Realization of /t/

As was mentioned in Chapter III, [r] appears in three different environments. We wanted to investigate if there is any difference in students’ recognition of the words with [r] according to these three environments. Unfortunately, however, we could not find enough words with [r] which the students know in environments 1-b and 1-c in the materials we used in this study. Moreover, more students than we had expected did not know words with [r] in all the environments, so we had to exclude
many words as the object of this study. Therefore, we cannot strictly compare the data among these three environments. However, considering that we can see the wide difference in the number of correct answers within one environment and it is true to all three environments although environments 1-b and 1-c do not have enough words to be investigated, the difference in the environments where \([r]\) occurs might not have anything to do with the recognition of the words with \([r]\).

As for /t/ which was not realized as \([r]\), that is, was realized as \([t]\), \([t^s]\), or \([t^r]\), most of the students recognized them easily as Table 4 shows. Among these phones, there is no big difference in the number of the correct answers, even though the words used in this study may not be enough. However, taking in account that 70 or more students could write the correct answers for the words with \([t]\), \([t^s]\), or \([t^r]\), it can be said that \([r]\) makes the recognition of words more difficult than these three phones.

3. Error Analysis

3.1 How \([r]\) was Recognized by the Students

We have seen the number of correct and wrong answers of each word so far but have not paid close attention to how \([r]\) was recognized by the students. In this section, we would like to look at the wrong answers which the students wrote for the words “city,” “item,” and “started.”

<table>
<thead>
<tr>
<th>Table 5: Wrong answers for “city”</th>
</tr>
</thead>
<tbody>
<tr>
<td>wrong answers</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>sea</td>
</tr>
<tr>
<td>leaders</td>
</tr>
<tr>
<td>school</td>
</tr>
<tr>
<td>kind</td>
</tr>
<tr>
<td>cite</td>
</tr>
<tr>
<td>serise*</td>
</tr>
<tr>
<td>serious</td>
</tr>
<tr>
<td>side</td>
</tr>
<tr>
<td>silios*</td>
</tr>
</tbody>
</table>

We can see the words “side,” “serious,” “serises*”, and “silios*” in the table. These words show it is strongly possible that the students who wrote these words recognized \([r]\) as \([d]\), \([x]\), or \([l]\) respectively.
Table 6: Wrong answers for “item”

<table>
<thead>
<tr>
<th>wrong words</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>idea</td>
<td>20</td>
</tr>
<tr>
<td>time</td>
<td>11</td>
</tr>
<tr>
<td>idem</td>
<td>4</td>
</tr>
<tr>
<td>ideaman*</td>
<td>3</td>
</tr>
<tr>
<td>ideman*</td>
<td>2</td>
</tr>
<tr>
<td>title</td>
<td>2</td>
</tr>
<tr>
<td>aid</td>
<td>1</td>
</tr>
<tr>
<td>idema*</td>
<td>1</td>
</tr>
<tr>
<td>ideal</td>
<td>1</td>
</tr>
<tr>
<td>main</td>
<td>1</td>
</tr>
<tr>
<td>advance</td>
<td>1</td>
</tr>
<tr>
<td>dialogue</td>
<td>1</td>
</tr>
<tr>
<td>live</td>
<td>1</td>
</tr>
</tbody>
</table>

There are many wrong answers for “item” although the students usually use the word as Japanese katakana. Looking at the wrong answers, for example, “idea,” “idem,” and so on, we can see that many students could have recognized [ɾ] as [d].

Table 7: Wrong answers for “started”

<table>
<thead>
<tr>
<th>wrong answers</th>
<th>number</th>
</tr>
</thead>
<tbody>
<tr>
<td>study</td>
<td>6</td>
</tr>
<tr>
<td>studied</td>
<td>3</td>
</tr>
<tr>
<td>starting</td>
<td>1</td>
</tr>
<tr>
<td>start</td>
<td>1</td>
</tr>
<tr>
<td>story</td>
<td>1</td>
</tr>
</tbody>
</table>

6 students answered “study” and 3 answered “studied” instead of “started.” These two words show the possibility that 9 students recognized [ɾ] as [d].

There are several other wrong answers which the students recognized [ɾ] as [d], [ɾ], or [I] for other words given in Table 1, 2, and 3. As was mentioned in Chapter II, [ɾ] sounds similar to [d], [ɾ], or [I] to Japanese ears, which can be one of the causes of misunderstanding of words.
3.2 Irrelevant Words

When the teacher checked the answers the students wrote, she found many unexpected answers. For example, a student wrote “kind” where he should have answered “city” and another wrote “nice” for the answer “better.” These irrelevant answers seem to come up from the reasons below:

1. Students could not recognize the word and wrote any answer.
2. Students could not recognize the word and wrote a likely word considering the context and/or grammar.
3. Students could not follow the script correctly and wrote the word which was written next to the blank.

In order to avoid situation 3 above and collect more precise data, we should have made the students listen to the words one by one, instead of using narration or dialogue.

3.3 Difference within an Environment

Two words which belong to Environment 1-b are shown in Table 2 in the previous section. These two words, “university” and “quality,” have the exact same sound in their last three phonemes, that is, both of them end with [ɔ̃i]. However, the proportion of the correct answers differ greatly: 99% of the students answered correctly for “university” while 43% of them wrote the correct answer for “quality.” The reason for this could be that “university” [juːnəvərˌsɪti] has five syllables and nine phonemes while “quality” [ˈkwɒləti] has three syllables and six phonemes. The more syllables or phonemes a word has, the easier it would be for us to guess the word. Therefore, most students may have been able to write the correct answer for “university” even if they did not recognize [ɔ̃]. This is not completely true for Environments 1-a and 1-c, but it can be true that more phonemes help listeners to recognize a word.

4. Suggestions for Further Studies

Because this study was carried out in class, we had no choice but to collect data using materials for listening comprehension and had to look for the words with /t/ in different environments in the materials. As we have seen before, we found many errors which resulted from students’ not being able to follow the scripts or inferring the answer from considering the context and/or grammar. If the students had listened to only the words with /t/, we would have never seen those kinds of errors and got more precise data to examine. Therefore, further studies should be carried out by using a word list instead of teaching materials. When using a word list, we should ask two native speakers of English to read it: one should be a speaker of North American English and the other a speaker of another accent whose /t/ is not realized as [ɾ] in any environment. It would be interesting to compare the results.
between two accents. Moreover, we need to prepare more words with /t/ for the next study. For this purpose, we have to choose students of a higher level as the objects of the investigation because we cannot use the words with /t/ which students do not know.

VI. Conclusion and Pedagogical Implication

We found that English flap [ɹ] often made it difficult for the Japanese university students to recognize the words correctly from the results that showed many of them could not recognize the words “letters,” “waiting,” and “item” even though they know these words and use them in katakana. If they have difficulty in recognizing words, it is likely that they have trouble with understanding sentences and this would lead to misunderstanding. Avery and Ehrlich (1992) say that even an advanced student could not understand common words including [ɹ] and they insist upon the importance of teaching students about the flap. A small child could acquire phones without thinking, but it may be difficult for many university students who started to learn English in junior high school and were trained in the traditional grammar-translation method to recognize the phones which do not exist in Japanese. Therefore, what we teachers have to do first is to make university students realize that /t/ becomes [ɹ] in certain environments in North American English. University students should be able to understand the theory which small children cannot. It would be effective to know the theory before listening training. After the students recognize the change of the sound, they have to listen to the words with [ɹ] in each environment and recognize the sound. We must spare a considerable time for this step, perhaps which has not been tried in most English classes in Japanese universities. It would also be effective for students to practice pronouncing [ɹ]. They do not necessarily have to master the pronunciation of [ɹ], but if they can produce it, it is easier to recognize it when they hear the sound.

It is necessary to continue further investigation and find out better ways to improve the listening ability of Japanese university students.

References


Watanabe, Kazuyuki. “‘Kikitorenai’ toha Douiuukotoka.” [*What do you mean by “not able to comprehend”?*] The English Teachers’ Magazine 27. 12 (1979):6-8.

Appendix

The scripts used in this study are shown below. The words in which /t/ was realized as [ɾ] are underlined.

Script 1

Anita: Danny, you went to Hawaii last year, didn’t you?
Danny: Yeah, I’ve been there a few times. It’s a wonderful place.
Anita: I’m going there with my cousin this vacation. Where should we go?
Danny: There are a few different islands in Hawaii. It’s best to decide what kind of place you want to visit.
Anita: Where do most people go?
Danny: Well, lots of people go to Waikiki. That’s on the island of Oahu. It has lots of restaurants and nightclubs. The nightlife is great. And there are some nice stores, too.
Anita: What about Maui?
Danny: Oh, that’s another really popular place to visit. Maui’s great if you want to try windsurfing, snorkeling or sailing or something like that. There are lots of places where you can do all kinds of water sports. You can even go whale-watching.
Anita: Really?
Danny: Yes, it’s amazing.
Anita: Okay. Any other places?
Danny: Well, if you really want to get away from it all, you could try the island of Molokai. It’s a good place for a quiet vacation. There aren’t many tourists. The best thing to do there is go hiking through the rainforest. It’s really beautiful.
Anita: That sounds good.
Danny: But if you want nightlife, Molokai’s not the place for you. There’s really no nightlife there. So you see, you can have different kinds of vacations on the different islands.

Script 2

Anita: Can you recommend a hotel for us on Maui?
Travel agent: There are quite a few that we recommend. Just to give you an idea, I’ll tell you about three nice ones. At the cheaper end there’s the Hotel Wailuku. It’s a friendly, old-fashioned hotel. It’s quite close to the airport. A room there costs $90 a night.
Anita: Does it have a swimming pool?
Travel agent: Yes, it has a pool and lovely gardens. It has a nice restaurant which serves traditional Hawaiian food. Every night they have Hawaiian music
and dancing. You can even take dancing lessons.

Anita: Really? That sounds fun.

Travel agent: Then there’s the Ocean Breeze Hotel. It’s right beside the beach and every room has a view of the ocean. They have their own boats and you can take sailing lessons at the beach right in front of the hotel. There are also two swimming pools and two very good restaurants.

Anita: How much is a room there?

Travel agent: Rooms at the Ocean Breeze are $120 a night. Now, at the top end of the market, there’s the Hotel Royale. It’s a very luxurious place. It’s built on top of a hill. It really is superb. It has three swimming pools and four restaurants. It even has its own golf course and you can take golf lessons while you’re there. Now, of course, it’s a little more expensive. A room at the Royale costs $240 a night.

Anita: Hmm, that’s a little more than we want to pay. Oh, I forgot to ask—does it have air-conditioning?

Travel agent: Oh, yes, all three hotels have air-conditioning.

Anita: Well, thanks for all that information. I’ll talk it over with my cousin and get back to you.

Script 3

Attending a university is an important part of a person’s life. Today, many people go to a university to study and train for a future job in subjects like law, medicine, or education. But the university is not a modern invention. It has a history that is over a thousand years old.

The world’s oldest university, Al-Azhar, is in Cairo, Egypt. It was first built as a mosque in A.D. 972. A few years later, learners and teachers began meeting in the mosque in “tutoring circles.” They read and talked about the subject of law. Around 988, leaders in the city of Cairo decided to create a school for higher learning and the University of Al-Azhar was founded.

At Al-Azhar, there were many university “firsts.” Courses were created. The earliest ones taught at Al-Azhar were in law and religion. In a course, students read and studied with the teacher, but there was also free discussion. Often, students and teachers talked about a topic, and there was no “right” answer. Finally, scholars from around the world came to Al-Azhar to teach and do research. At the university, people studied the past, but it was also a place for sharing new ideas.

Over a thousand years later, Al-Azhar is still an important university in the world. Its library contains more than 250,000 of the world’s oldest and most valuable books. Today, many of the world’s most important universities such as Oxford and Harvard still follow the traditions started at Al-Azhar.
Script 4

1. (A) One of the men is drinking coffee.
   (B) There is a big screen behind the two men.
   (C) One of the men is resting his elbows on his lap.
   (D) Neither of the men is wearing glasses.

2. (A) Many businessmen in dark suits are standing in line.
   (B) Some people are sitting next to the chair.
   (C) There is a man carrying a backpack on his back.
   (D) Many children are standing in the hotel lounge.

3. What time is the interview?
   (A) It’s time to have another one.
   (B) It’s at 1:15, just after lunch.
   (C) There’s one arriving tomorrow at 2 p.m.

4. What kind of business are you in?
   (A) I’m in the export business.
   (B) It’s not very profitable.
   (C) Bob imports business forms.

5. When does the meeting start?
   (A) As soon as Jim gets here.
   (B) At the beginning each table had a bottle of water.
   (C) It happened about noon.

6. What is Mary’s new title?
   (A) I haven’t read that book.
   (B) Jim doesn’t like her very much.
   (C) Special assistant to the President.

Questions 7 through 9 refer to the following conversation.

W: I just checked the arrivals board. Apparently Mr. Harrison’s plane has been delayed.

M: So that’s why I’ve been waiting here for the last thirty minutes.

W: I’m afraid so. I’d better call the office and tell them to reschedule the meeting.

Questions 10 through 12 refer to the following talk.

Good morning, and welcome to Business World. The first item on today’s program concerns Mack Life Insurance, which has announced it will go into a joint venture with Daito Bank. Together they intend to provide loans for medium-sized and small businesses. Through this new relationship, the bank, whose branches are concentrated in the metropolitan area, will have an opportunity to expand its financial transactions. The insurance company is also expected to profit through handling charges.
Script 5
1. (A) The man is repairing the photocopier  
   (B) The man is moving away from the photocopier.  
   (C) The man is walking behind the copying machine.  
   (D) The man is standing in front of the copying machine.  
2. (A) There is a woman typing a letter in the office.  
   (B) The man is holding a mobile phone in his left hand.  
   (C) The man is not wearing glasses.  
   (D) The man is holding the receiver to his ear.  
3. Who’s going to get the new promotion?  
   (A) Albert isn’t very happy in his new job.  
   (B) It looks like William has the best chance.  
   (C) The boss usually goes home early.  
4. Who usually does the typing?  
   (A) Debbie types 60 words a minute.  
   (B) The man at the last desk on the right.  
   (C) I found it on the desk.  
5. When does the weekly report come out?  
   (A) No one was reported on Monday.  
   (B) One is put in everyone’s mailbox.  
   (C) We usually get it on Tuesday.  
6. Who delivered this package?  
   (A) The mail carrier comes in the afternoon.  
   (B) He always puts stamps on the boxes.  
   (C) The guy in the gray shirt.  

Questions 7 through 9 refer to the following conversation.

W: I’m thinking of quitting. I just can’t seem to balance my job and my family responsibilities.  
M: It might be a better idea to talk to the boss than to rush into a decision you might regret. After all, you’re a really important member of the team here.  
W: Thanks. It’s kind of you to say so.  

Questions 10 through 12 refer to the following announcement.

Good afternoon, ladies and gentlemen. I’m very happy to see you all here today, and to declare the general meeting of the Climbers Club for 2005 open. We’ll spend the first hour discussing subjects we told you about in advance in letters and e-mails. During the remaining part of the meeting we’re scheduled to have Don Evans’ lecture on how to avoid danger in the mountains.
Script 6
1. (A) A few people are **getting** into the taxis.
   (B) The trunk of one taxi is open.
   (C) Several people are lining up at the taxi **stand**.
   (D) There are five taxis waiting for passengers.
2. (A) The vehicles are moving in the same direction.
   (B) A car traveling behind the bus is turning left.
   (C) There are two lanes on the road.
   (D) A man is crossing the road.
3. Which vehicle were you driving yesterday?
   (A) The car was in the shop, so I drove the truck.
   (B) I like driving when the weather is good.
   (C) I drove faster than usual because of the time.
4. Which is better, a big car or small car?
   (A) He needs to get a new one soon.
   (B) I prefer to go to work by bus.
   (C) The smaller ones get better gas mileage.
5. Where did you put the suitcase?
   (A) His luggage was quite heavy.
   (B) It’s in the trunk.
   (C) The designer thought of the epoch-making suitcase.
6. Which way do you come to work?
   (A) I take the toll road.
   (B) The subway is much faster.
   (C) The workers come early.

*Questions 7 through 9 refer to the following conversation.*

**M:** I put a big dent in Bruce’s car. I must tell him about it and apologize.
**W:** Why were you driving his car? You have one of your own, don’t you?
**M:** Yes, but it broke down three days ago. It’s still being repaired. It won’t be ready till next month.

*Questions 10 through 12 refer to the following advertisement.*

Some of the world’s most beautiful places are only accessible over rugged and undeveloped roads. Our new car, the Field Wagon, comes **out** on July 13. Its 190-horsepower turbo engine and excellent handling let you travel smoothly even on the toughest roads with none of the rattle and shake generally associated with four-wheel drive vehicles.
Questions 7 through 9 refer to the following conversation.

W: Instant foods are very bad for your health.
M: I know but at the moment I’m living alone and very busy with work.
W: I see. Well, you should eat a proper meal. Why don’t you cook yourself sometimes?
M: I’ll give you this recipe book for beginners.
W: Thank you. Let me have a look. It looks interesting.

Questions 10 through 12 refer to the following advertisement.

Sakurazaka is an authentic Japanese restaurant, open from 7:00 am to 10:00 pm. Currently, in addition to the regular menu, we are offering a special lunch set, which features a variety of autumn delicacies for 2,500 yen. This will last till the end of October this year. The prices include tax and service charge. We are situated just an 8-minute walk northwest from JR Shibuya Station. Once there you will be able to enjoy Japanese cuisine of the highest quality at one of the most traditional restaurants in the country.
Script 8
1. (A) The vehicles are being damaged.
   (B) The trucks are being loaded.
   (C) The cars are parked by the roadside.
   (D) The vehicles are parked alongside each other.
2. (A) Many bicycles are parked along the sidewalk.
   (B) The bicycles are obstructing the passers-by.
   (C) Someone is stealing one of the bicycles.
   (D) The bicycles are piled on top of each other.
3. Why are the policemen going into the bank?
   (A) To make a deposit.
   (B) It was just robbed.
   (C) They just got out of their cars.
4. Why did he steal the car?
   (A) To get away from the police.
   (B) He bought it from the dealer.
   (C) The service department opens at 9:00.
5. How many people were injured?
   (A) There was only one driver.
   (B) More than 17.
   (C) Two of the wheels came off.
6. Why did the car hit the truck?
   (A) It hit a patch of ice.
   (B) The brakes will be shipped later.
   (C) The weather was quite cold.

Questions 7 through 9 refer to the following conversation.

W: A big fire broke out in the apartment last night. All the residents in the building were immediately evacuated before anyone got hurt.
M: Oh, really? The neighborhood was noisy with all of the fire engines. Was the fire caused by someone smoking?
W: No, a young boy was arrested early this morning for starting the fire.

Questions 10 through 12 refer to the following news.

A four-car train, bound for Umiyama from Kitajima with 20 passengers on board, smashed into the terminal station building at around 9:00 pm, according to the police. The train destroyed not only the outer wall but one of the elevators leading to the platform. The police are now investigating the case, questioning the driver, the conductor and some of the passengers.
Script 9

1. (A) The files are on top of the cabinet.
   (B) The woman is wearing glasses.
   (C) The man has his hand on the counter.
   (D) Some files on the counter are open.

2. (A) This is a small operating room in a hospital.
   (B) This is a corridor of a hospital.
   (C) A woman is standing in front of the front desk at a hotel.
   (D) People can open a bank account here.

3. How many patients are on this floor?
   (A) Only five. This is a special unit.
   (B) Patients should go upstairs.
   (C) Three times a week.

4. How many vitamins do you take?
   (A) It takes quite a few.
   (B) These vitamins are very helpful.
   (C) Usually one a day.

5. Where is the nearest hospital?
   (A) It's downtown on Jefferson Street.
   (B) The post office is quite near.
   (C) The large hospital is always open.

6. How long has she been sick?
   (A) He will be gone for three days.
   (B) A lot of students were sick today.
   (C) She started feeling bad on Wednesday.

Questions 7 through 9 refer to the following conversation.

M: I’d like to make an appointment to see the dentist. I’ve got a really bad toothache.

W: We have an opening in the afternoon, but we close the clinic between twelve and one.

M: I don’t think I can take the pain any more. I’ll come first thing this afternoon.

Questions 10 through 12 refer to the following speech.

How can we stay healthy after 40 years of age? Physical strength plays an important role in remaining healthy. You need to exercise to maintain and improve your physical strength. Exercise should be done according to each individual’s physical strength. You should find the most efficient way to do it considering the type, difficulty and length of the exercise.
抄録

日本人大学生による弾音化した/t/の聞きとり

林 祐子

本研究は、日本人大学生の弾音化した/t/の聞きとり能力について調査を行い、その結果を考察したものである。大学での英語の授業時間にリスニング教材を用いて弾音化した/t/が含まれる単語を学生に書き取らせた結果、universityやbeautifulといった単語は全員が聞きとれていたが、letterやitemなど、カタカナとして普段使っている単語を聞きとれていない学生が予想以上に多かった。そのため、授業の中で/t/の弾音化について説明し、学生にその音を意識させた上で時間をかけてリスニングの訓練を行うこと、また、この音を発音する練習を取り入れることを提案した。