

The Effects of Recording 1-minute of English Speaking Activity on Japanese EFL University Students

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1. Introduction

“English Communication I” is a compulsory subject for freshmen at Tokyo Keizai University, Japan. They get two face-to-face lessons in a week. The course mainly focuses on giving practice in speaking English, and its goal is to improve speaking skills. The classes of English Communication I are prepared depending on students’ proficiency levels, so students are expected to engage in active English conversations, without any hesitation, with friends who have similar English skills. Using correct vocabulary, grammar and pronunciation (quality) are secondary to maximizing opportunities to speak English (quantity) in the classroom.

Hardly any of the students at lower proficiency levels show an attitude of trying to speak English as much as possible, and usually utter only one short English sentence in the conversation. After uttering one sentence, they tend to wait for their interlocutor to speak, leaving a long silence. Considering Fillmore’s (1979)¹⁾ view that fluency includes the ability to fill time with talk [i.e., to talk without awkward pauses for a relatively long time], students like the above have no fluency. Although many students have something that they want to tell others and they may have more words in their “receptive vocabulary” than they expected, the situation where they cannot fill time with talk arises because they might not be able to recall the words and phrases they need during communication; that is, they have less “productive vocabulary”.

The distinction between “receptive vocabulary” (RV) and “productive vocabulary” (PV) is well known in the research field of second language acquisition. Receptive vocabulary is defined by Haycraft (1978, p. 44) as “words that the student recognizes and understands when they occur in a context, but which he cannot produce correctly”, and productive vocabulary as “words which the students understand, can pronounce correctly and use”. The large quantity of

1) Also, Fillmore proposed that fluency includes; Talking in coherent, reasoned, and “semantically dense” sentences, Having appropriate things to say in a wide range of contexts, Being creative and imaginative in using the language.

research on the relationships between the RV and the PV has generally shown that L2 learners' RV size is larger than their PV size; and the larger the RV size L2 learners have, the larger the PV size they are more likely to have in both ESL (Laufer & Paribakht 1998) and EFL contexts (Laufer 1998; Laufer & Goldstein 2004; Webb 2008; Zhong & Hirsh 2009). The importance of developing the RV through activities such as extensive reading has been widely acknowledged in the field of language teaching (e.g., Elley & Mangubhai, 1981; Grabe & Stoller, 1997; Krashen, 1993; Nagy, Herman, & Anderson, 1985; Nation, 2001, 2009; Saragi, Nation, & Meister, 1978), so it has long been believed that increasing the RV leads to increasing the PV.

According to Maruyama (2011, p. 226), however, recent studies (Grabe & Stoller, 1997; Nation, 2001, 2009; Waring & Nation, 2004; Waring & Takaki, 2003) have reported that large RV gains through incidental vocabulary acquisition cannot be expected as was once thought. Ishikawa (2005, p. 343) also insisted that clear quantitative relationships between the RV and the PV were not found in his research, which broke the common belief, including Krashen's input hypothesis (1985), that teaching the RV can increase the richness of the PV. If these findings of recent studies are correct, how can English teachers (1) increase the PV of EFL students in communication classes, and (2) make students more fluent in conversation?

In the "English Communication I" class, the teacher specially focused on Fillmore's (1979) definition of fluency as stated before, and as the first step to students' obtaining fluency, the teacher made students do a speaking activity in which they had to fill time by speaking English. In every class, students were given one topic to speak about, and they concurrently recorded their own answer for full one minute using a PC, as described below. The measurement of their fluency was carried out by counting the English words per minute (WPM) that they uttered, and the change in both their fluency and the PV size were compared before and after the activities. Two research questions (RQs) were addressed:

RQ1. Do the recording 1-minute of English speaking activities contribute to increasing the fluency of Japanese EFL university students?

RQ2. Can any change in the PV of the Japanese EFL university students before and after the speaking activity be seen?

2. Method

2. 1. Participants

The research participants comprised Japanese EFL learners ($n = 34$) majoring in business administration at Tokyo Keizai University, Japan. They were all registered in compulsory class-

es “English Communication I” from April to July, 2012. The mean total raw score on the ACE Placement Test conducted at the beginning of the new semester, soon after entering the university, was 125.2 out of 300. One student was excluded from the analysis because he only took the pre-test and did not attend many lessons. Therefore, the data of the remaining 33 were analyzed.

2. 2. Procedure

The Moodle (Modular Object-Oriented Dynamic Learning Environment) is a free source e-learning software platform, also known as a Learning Management System. Various plug-in features can be added to the system, and Online Audio Recording (https://moodle.org/plugins/view.php?plugin=assignment_onlineaudio) is one of them. Online Audio Recording (OAR) has two main functions, namely that users can record their voice and submit the recorded file online.

First, students access the OAR on the Moodle at the beginning of every lesson. Then, the teacher gives them a topic to speak about such as “Please tell me about your...” or “I’d like to know about your...” and they start to record their answer using the OAR for one minute. The topics should be chosen with care to ensure they are not too difficult for students to answer. Questions they feel are difficult to answer even in Japanese should be avoided. The following topics were introduced in the Spring Semester of “English Communication I” in 2012.

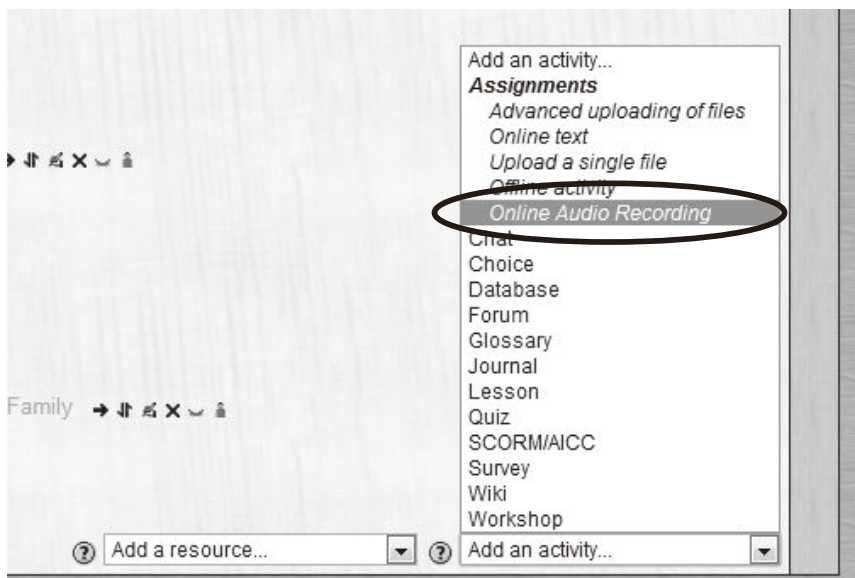


Figure 1. The Moodle screen when Online Audio Recording has been added

Table 1. *Topics for Recording 1-minute of English Speaking Activities*

Week	Topic
1st week	Pre-test (Practice: Please introduce yourself. 1. Tell me about your family. 2. How do you go to Tokyo Keizai University from your house? 3. What do you do in your free time? 4. Do you like English? Why or why not? 5. What is your dream?)
2nd week	My Hometown, Entrance Examination
3rd week	My Favorite Sport, Stress You Have
4th week	My Special Talent, My Favorite Singer (Group)
5th week	My Room, My Favorite Manga
6th week	Shopping, Favorite Place to Eat
7th week	One Thing I Would Like to Change about My Appearance, The Real Me
8th week	My Friends at School, Sleeping in Class
9th week	Part-time Job, Clubs
10th week	SNS, The Good and Bad Points about Living Alone (With My Family)
11th week	My Favorite Japanese Tradition, My Goals after Graduation
12th week	A Day in My School Life
13th week	Post-test (Practice: Please introduce yourself. 1. Tell me about your family. 2. How do you go to Tokyo Keizai University from your house? 3. What do you do in your free time? 4. Do you like English? Why or why not? 5. What is your dream?)

Students click on the PLAY button of the OAR (see Figure 2) as soon as they are given the topic, and keep speaking about the topic for one minute. After one minute, they stop talking, click on the STOP button, name the recorded file, and upload it to the Moodle.



Figure 2. The OAR control panel

In the first week and the 13th week, students speak on the same five topics as in the pre- and post-speaking tests to measure the effects of the Filling 1 minute with English speaking activity in every class.

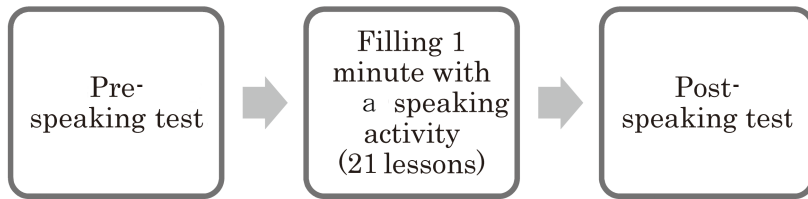


Figure 3. Flow of the experiment

2. 3. Scoring and Data Analysis

First, all of the recorded voices of the pre- and post-speaking tests of the 33 participants (330 data files) were transcribed, and both tokens and each student's average WPM were calculated. Second, to calculate the PV size of the pre- and post-speaking tests, the difficulty levels of the words students uttered were measured using a CGI programming, "JACET 8000 Level Marker" (<http://www.tcp-ip.or.jp/~shim/J8LevelMarker/j8lm.cgi>) on the website.

I_1 have_1 a_1 sister_1 and_1 mother_1 and_1 father_1. My_1 father_1 is_1 is_1 the_1 biggest_1 of_1 my_1 family_1. My_1 mother_1 is_1 the_1 smallest_1 of_1 the_1 family_1. My_1 father_1 likes_1 riding_1 bike_3 and_1 collecting_2 model_1 gun_1 and_1 play_1 the_1 TV_1 game_1. My_1 mother_1 mother_1 works_4 pet_3 shop_1. I_1 My_1 sister_1 is_1 strong_1.

Figure 4. A sample of data analysis on the screen (The numbers show the difficulty levels of words. 1 is the easiest.)

From these data, word frequency lists of pre- and post-test depending on the difficulty levels of words (from Levels 1 to 8) were made. These clarified what word levels students frequently used. Most of the words in the eight levels were proper nouns, so they were excluded from the analysis. Finally, following Ishikawa's method (2005, p. 341), the pre- and post-test PV size of the students was measured.

3. Results and Discussion

3. 1. WPM (as an index of fluency)

The total number of words (tokens) that students uttered in the pre-test was 4415 ($M = 133.79$, $SD = 60.10$), while in the post-test, 6047 tokens ($M = 183.24$, $SD = 50.90$) appeared.

Table 2. *The Results of Pre- and Post- Speaking Tests*

	Pre-test	Post-test
Tokens	4415	6047
WPM (words per minute)	26.76	36.65

When analyzing the difference between the tokens of the pre- and post-test statistically by a t-test, a significant difference was seen ($t(32) = 6.71, p < .05$), which means that students were successfully trained to utter more English words through the recording 1-minute of English speaking activities.

Also, the average WPM of the pre-test was 26.76 ($SD = 12.02$), while that of the post-test was 36.65 ($SD = 10.18$). Furthermore, a two-tailed paired t-test was run to analyze statistically the difference between the average WPM of the pre-test and that of the post-test. The result showed that there was a significant difference between the average WPM of the pre- and post-test ($t(32) = 6.71, p < .05$), and recording 1-minute of English speaking activities contributed to higher fluency when considering Fillmore's (1979) definition of fluency.

3. 2. The Size of the PV

The transcription of pre- and post-test of the 33 participants was analyzed by v8an - revised web edition (<http://www.tcp-ip.or.jp/~shim/j8web/j8web.cgi>) to calculate the size of the PV students have. As the result of a two-tailed paired t-test, a significant difference between the quantity of Level 1 and 2 vocabulary used in the pre-test and that in the post-test (Level 1: $t(32) = 7.61, p < .05$, Level 2: $t(32) = 3.49, p < .05$) was seen, that is, students spoke more words from Levels 1 and 2 after doing just recording 1-minute of English speaking activities. However, no significant difference was found in the whole level index ($t(32) = 1.37, p > .05$). These results showed that students could not increase the size of the PV by recording 1-minute of English speaking activities, but they could be trained to use easier words by the activities.

Table 3. *The Size of the PV of Pre-test and Post-test*

		Lev1	Lev2	Lev3	Lev4	Lev5	Lev6	Lev7	Lev8	Lev-Index
Pre-test	tokens	1520	69	77	27	5	32	4	7	134.0
	%	87.36	3.97	4.43	1.55	0.29	1.84	0.23	0.40	
Post-test	tokens	1966	110	76	41	8	32	3	10	130.5
	%	87.53	4.9	3.38	1.83	0.36	1.43	0.13	0.45	
t-test		*	*	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

*: $p < .05$ n.s.: not significant

Table 4. *Sample of the Size of the PV in the Pre-test*

	Pre-Lev1	Pre-Lev2	Pre-Lev3	Pre-Lev4	Pre-Lev5	Pre-Lev6	Pre-Lev7	Pre-Lev8	Lev-Index
A	84.31	3.92	5.88	1.96	1.96	1.96	0	0	139.2
B	88.3	5.32	4.26	1.06	0	1.06	0	0	122.3
C	87.76	0	10.2	0	0	2.04	0	0	130.6

Table 5. *Sample of the Size of the PV in the Post-test*

	Post-Lev1	Post-Lev2	Post-Lev3	Post-Lev4	Post-Lev5	Post-Lev6	Post-Lev7	Post-Lev8	Lev-Index
A	85.25	4.91	6.56	0	1.64	1.64	0	0	132.8
B	84.09	6.82	5.68	1.14	0	1.14	0	1.14	135.2
C	90	2.5	3.75	1.25	0	1.25	0	1.25	128.8

4. Conclusion

In the “English Communication I” class, many students of lower proficiency levels do not make an effort to speak English in the conversation, so an attempt of recording a 1-minute of English speaking activity was made at the beginning of every class. The purposes of the activity were mainly as follows: to increase the productive vocabulary (PV) of students in communication, and make them more fluent in conversation. Therefore, the present study analyzed the transcription of the pre- and post-test with the following two research questions: RQ1. Do the recording 1-minute of English speaking activities contribute to increasing the fluency of Japanese EFL university students? RQ2. Can any change in the PV of the Japanese EFL university students before and after the speaking activity be seen?

Firstly, the results of this study indicated that the words per minute (WPM) figure was in-

creased by the recording 1-minute of English speaking activity, and it could be said that students were successfully trained to “fill time with talk” as Fillmore suggested (1979), and could be on the first step to becoming fluent in speaking English. Therefore, as for RQ1, the answer was that recording 1-minute of English speaking activities can contribute to increasing fluency of Japanese EFL university students. Secondly, though the students could not increase the size of the PV (from Levels 3 to 8) by the 1-minute of English speaking activities, they were trained to use easier words (from Levels 1 to 2) just by doing the activities. Thus, concerning the RQ2, it could be summed up that recording 1-minute of English speaking activities can contribute to developing the number of easier PV. These findings suggest that there are two ways to cultivate students' PV; (1) to train using more and more words from Levels 1 and 2 that students might already have in their RV, or (2) to make them use words from Levels 3-8 even if the number actually spoken is not high. The former would be more feasible and realistic to increase WPM and cultivate fluency; however, further research is required to explore what exercises should be added to the activities.

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Appendix (Instruction of the Pre- and Post-test in Japanese)

これから皆さんが英語をどのくらい話せるのか、現時点での能力を測りたいと思います。測定するのはWPM (words per minute) というもので、これは一分間に何語話せるかをみるものです。皆さんはこれからマイク付きのヘッドフォンを装着し、提示される五つの質問に英語で答えていきます。私が『スタート』と合図をしたら赤い●印の録音ボタンをクリックし、答えてください。一つの質問につき一分間の解答時間が与えられるので、スタートの合図から、モニターの表示が一分になるまで話し続ける努力をしてください。一分が経ったら、■印の停止ボタンをクリックして録音をやめてください。なお、一分以内に話し終えた場合も、表示の時計で一分が経過するまでは停止ボタンは押さないようにしてください。

それでは、まず五問の質問に答える前に、操作方法の練習を兼ねて画面に提示される練習問題に真剣に答えてみましょう。では、ヘッドフォンを装着し、マイクをなるべく口元に近づけて話すようにしてください。

今録音したファイルに名前をつけます。半角で学籍番号をタイピングし、最後に数字の0をつけてください。(例) miyake0

それでは、皆さんの声がきちんと録音されたかをチェックしたいと思います。チェック方法は、さきほど名前をつけたファイルをクリックし「開く」を選択します。ヘッドフォンをつけて、自分の声が一分間録音されているか確認してください。

録音ができなかった人、録音はできていたけれどもノイズが入って聞き取りにくい人、またこれまでの操作でわからないことがあった人は手を挙げてください。

それでは、本番に入ります。さきほどと同じようにヘッドフォンを装着し、マイクを口元に近づけ、一分間話す努力をしてください。

- 1 問目 : Tell me about your family.
- 2 問目 : How do you go to Tokyo Keizai University from your house?
- 3 問目 : What do you do in your free time?
- 4 問目 : Do you like English? Why or why not?
- 5 問目 : What is your dream?

以上です。ファイル名は例) miyake1, miyake2, miyake3, miyake4, miyake5 とし、ファイルを提出してください。