■研究論文

Preliminary Study: Effects of Daily Shadowing Homework Using Audio Dropbox on EFL Speaking Skills

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Abstract This study has two purposes: to 1) examine how shadowing training methods and materials given to Japanese English as a foreign language (EFL) learners improve speaking skills, and 2) examine the effectiveness of submitting homework via audio files as part of shadowing training among Japanese EFL learners. In this study, participants—two Japanese undergraduate students and one Chinese graduate student—practiced shadowing through homework and submitted audio files daily for 15 weeks in the first semester of 2016. They registered for a mandatory Test of English for International Communication (TOEIC) preparatory course at a university, but no other English course during the semester. The effectiveness of shadowing training was evaluated using Versant™ English tests, analysis of each participant's study journal, distribution of questionnaires, and short interviews with participants. Their journals recorded that two out of three participants practiced shadowing for more than 30 hours each. Results of comparing their best pre- and post-course TOEIC scores showed improvement in their English speaking proficiency. Although earlier studies on shadowing training indicated that shadowing improved learners' listening skills, this study suggests that shadowing training is applicable for improving speaking skills as well.

Keywords : shadowing, Audio Dropbox, Versant™ English test

1. Introduction

Shadowing training, which was used originally in basic training at schools for interpreters in Japan[1], involves learners listening to selected text of the target foreign language and then immediately reading the text aloud[2]. In recent years, the effectiveness in improving listening skills by shadowing training in L2 acquisition has been demonstrated by many researchers and educators in Japanese educational institutions, and the methodology has been used in English classes in Japan. Kadota[3] posited that shadowing training improves a learner's skills in three ways: "The input effect leads to listening improvement; the practice effect leads to the internalization of vocabulary, grammar, and syntax; and the output effect leads to speaking improvement." The effectiveness of shadowing has been demonstrated to improve listening skills in many case studies[1][4][5]. Hamada[6] demonstrated that post-shadowing, that is, practicing shadowing after a learner studies the content to be shadowed, was more effective for improving listening comprehension than pre-shadowing, whereby a learner would study content only after shadowing practice.

Additionally, although Hamada[6] advocated that shadowing improves speaking performance, there is little research demonstrating whether shadowing is effective for developing speaking skills in English as a foreign language (EFL) learners. Mishima and Cheng[4] conducted a preliminary survey of computer-mediated shadowing training with five Chinese students studying in the United States. Shadowing training materials were drawn from two sources: TED and Go Animate. Their results showed that the shadowing training was effective in improving overall speaking skills (p. 8). In Mishima and Cheng's preliminary study, the sample size was small, and specific teaching methods for shadowing to improve speaking performance were not demonstrated, such as how to choose and match materials to various levels of learners. Therefore, the current case study has two aims:1) to examine how shadowing training methods and materials given to Japanese EFL learners improve speaking skills, and 2) to examine the effectiveness of submitting homework via audio files as part of shadowing training among Japanese EFL learners. This is a preliminary study designed to advance the research on shadowing and its effectiveness in improving speaking skills.

2. Method

2.1 Participants

Three female students participated in this study: a Chinese graduate student (Participant A) and two Japanese undergraduate students (Participants B and C), all of whom took a TOEIC preparatory class at a university in Kyushu, Japan. Participants B and C had previously studied at the university through an e-learning program (developed and licensed from "A," Inc).

At the beginning of the course, the students signed a research agreement to become paid participants and to provide all data for the researcher's use. Their best TOEIC scores before taking the class were as follows: Participant A, 770 (Listening, 420/Reading, 350); Participant B, 400 (Listening, 270/Reading, 130); and Participant C, 525 (Listening, 290/Reading, 235).

2.2 Materials

CNN English Express magazine[7] by Asahi Press was chosen as the study material for shadowing. This monthly magazine has short news passages excerpted from CNN News with audio CDs that contain model speech at both natural and slow speeds. For new words, magazine subscribers can check the meaning, pronunciation, stress, grammar points, and Japanese translation, as well as their own understanding of the news in the magazine (Appendix A). The magazine contains steps for subscribers to practice shadowing, which the instructor employed for this study. The content of the news was thought to be of interest to university students. Most passages used for the class had between 50 to 100 English words, with a few slightly longer passages.

2.3 Procedure

To measure the effectiveness of daily shadowing homework on improving speaking skills, participants were required to submit their homework as audio files and upload them to Audio Dropbox[8], a free application created by the Center for Language Education and Research (CLEAR)[9], Michigan State University. Unfortunately, this free application service was discontinued at the end of December 2016.

At the beginning of the course, the instructor gave a lecture that explained and emphasized the effects of shadowing, which participants practiced using different magazine passages every day. The instructor asked students to listen to their audio files to check if they had perfectly mimicked the model file. After they had successfully mimicked the audio, they submitted their files to the instructor. The instructor listened to their submissions, but only to see whether the participants actually repeated the assigned materials correctly.

Table 1. Procedure for Daily Shadowing Homework

Step	Details
1	They should understand the effectiveness of shadowing training.
2	They should listen to the model audio without looking at the English script in the magazine.
3	They should practice reading aloud while looking at the script until they could read it aloud fluently.
4	They should read aloud while listening to the model audio without looking at the script.
5	They should record their shadowing and make an audio file using Audio Dropbox.
6	They should listen and check their own audio files.
7	They should complete submission through Audio Dropbox.
8	They should record how much time they spent on their shadowing training homework prior to submission.

Many Japanese instructors and researchers have used a specific shadowing procedure to improve listening skills recommended by Kadota[3]. However, Sumarshi[10] mentioned that there are several types of shadowing steps that vary with the language teaching context. In addition to the conventional shadowing procedure for improving listening that many Japanese instructors use, this study added the procedure of learners submitting shadowing audio files using Audio Dropbox; see Table 1.

After they submitted their recordings, each student wrote an entry in her study journal. In the following week, the students read their passages aloud and then performed their shadowing activity—reading without looking at the passage—with their classmates. To check the outcome of the shadowing homework, shadowing training using the same materials was conducted in class. The procedure was as follows: 1)The instructor chose a news item that the students had used for homework during the previous week; 2)The instructor divided the news script into parts; and 3) Each student was assigned a part for shadowing. The class was conducted in a computer laboratory with headphones provided. When each student shadowed her assigned material, she could not hear the other students as they shadowed their respective assigned parts. This was done to avoid any feelings of embarrassment that Japanese students often have when they practice their English in front of peers.

2.4 Data Collection

To evaluate how daily shadowing homework influences learners' speaking skills, post-course TOEIC score, the Versant™ English test, study journal, questionnaires, and follow-up interviews were used and analyzed.

Post-course TOEIC score. The students were required to take the TOEIC Listening and Reading Institutional Program test immediately after they completed the course.

Versant™ English test. The Versant™ English test is a Web-based speaking test that measures one's practical English ability to use at work. Unlike conventional English tests, test takers can obtain their speaking scores immediately after they finish. It uses an advanced automatic language recognition system developed by Pearson. "The test results are reported in the range from 20 to 80 points. The overall score is based on a weighted combination of four diagnostic sub-scores. The skills areas of sub-scores are sentence mastery, vocabulary, fluency, and pronunciation" (p.1.)[11]. The report also provides a correspondence between the results of the Versant™ English test and score proficiency (as shown in Table 4). Therefore, the predictions are approximate. This study's three participants took the speaking test three times: a pre-course test in April, a mid-course test in June, and a final test at the end of the course in August 2016.[11]

Study journal. The instructor gave the students journals to record their study time, as well as how long it took to practice shadowing and read aloud. In addition, they recorded other English

materials they used to study outside the classroom.

Questionnaire and follow-up interviews. At the end of the course, a survey was administered to the three participants. The researcher developed a question to determine each student's perception: "Do you think that shadowing has been useful for improving your English proficiency in the following five skills?" (The skills are listed in Table 5.)

3 Results and Discussion

Table 2 shows the scores of the pre- and post-course TOEIC® tests that participants took for this study.

Table 2. Comparison of Pre- and Post-Course TOEIC® Total Scores

Participants	Pre-Course Best (L/R)	Post-Course (L/R)
A	**770** (420/350)	**710** (425/285)
B	400 (270/130)	**595** (335/260)
C	525 (290/235)	**555** (315/240)

The results showed that Participant A's TOEIC score dropped compared with the pre-course score. Table 3 shows scores of the Versant™ English test administered before, during, and after the course to the three participants. In the speaking test, if a candidate failed to obtain a score of at least 20, the test did not provide an exact score, which occurred with Participant C. She reported that she could not answer each question because she could not understand the test instructions as she had listened to them.

Table 3. Overall Scores of Versant™ English Test for Each Participant[11)]

Participants	Pre	Mid	Post
A	40	37	37
B	33	32	34
C	< 20	35	36
D	N/A	N/A	N/A

Compared with Participant A, Participant B improved slightly by the end of the course. Her pre-course speaking test score was 33, and her post-course score was 34. Participant C's speaking proficiency was low in April, under 19. However, her performance improved after she had practiced shadowing. Her post-course score was 36. The overall scores of the Versant™ English test correspond with their scores of the Global Scale of English, Common European Framework of Reference for Languages, and Test of English as a Foreign Language (TOEFL) Internet-Based Test (iBT). The total TOEFL iBT score for each participant is presented in each overall Versant™ score and TOEIC score range (Discos URL). Table 4 displays the results for Participants A, B, and C.

Table 4. Corresponding Scores, Levels, and Range

Test/Scale	Pre	Mid	Post
Participant A			
GSE	35	31	31
CEFR	A2	A2	A2
TOEFL Speaking	14–19	13–18	13–18
TOEFL Total	48–76	43–71	43–71
TOEIC	604–647	561–604	561–604
Participant B			
GSE	28	27	28
CEFR	A1	A1	A1
TOEFL Speaking	12–17	12–17	12–17
TOEFL Total	37–65	37–63	37–65
TOEIC	504–547	504–547	504–547
Participant C			
GSE	N/A	29	30
CEFR	N/A	A1	A2
TOEFL Speaking	N/A	13–18	13–18
TOEFL Total	N/A	40–68	41–70
TOEIC	N/A	533–575	547–604

Note: GSE = Global Scale of English; CEFR = Common European Framework of Reference; TOEFL = Test of English as a Foreign Language; TOEIC = Test of English for International Communication.

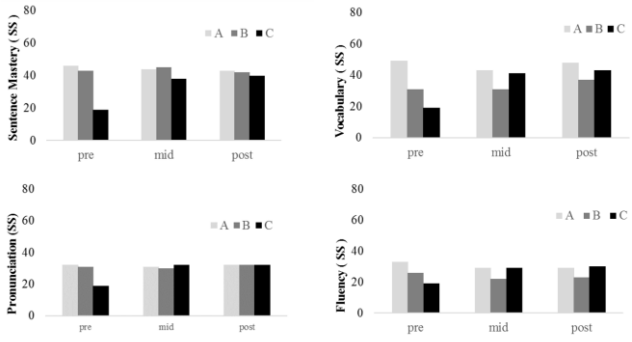

Figure 1. Participants A, B, and C's sub-skill scores.

According to the Versant™ English Test Reports, scores are based on a weighted combination of four diagnostic sub-scores: sentence mastery, vocabulary, pronunciation and fluency (Figure 1). As can be seen in Table 3, Participant A scored well in the pre-course test. However, in the post-course test, A's score dropped slightly. Participant B's improvement was modest. Participant C's score improved to reach close to that of Participant A. Scores for pronunciation skills showed little or no improvement among all participants.

Participant A's result may be explained by analyzing participants' study journals to determine the relationship between the amount of hours spent in practicing shadowing and the improvement in their English speaking proficiency. For 15 weeks, they each recorded the amount of time they practiced before submitting a daily shadowing audio file. As shown in Figure 2, Participant A recorded a low number of hours spent studying outside the classroom. Without such practice, the instructor was unable to provide feedback regarding her pronunciation skills, thus

providing no avenue for Participant A's improvement. This indicates that as with many classroom heuristics, outside practice by motivated students is crucial for learners to improve their knowledge and skills. In regards to shadowing, research has demonstrated that effective shadow training requires highly focused, frequent practice that includes students listening to and comparing their own recordings to the model audio files. As seen in Figure 2, Participants B and C performed much more of this homework compared with Participant A.

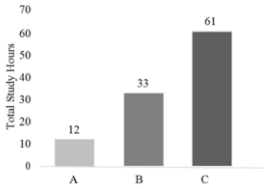

Figure 2. The total number of practice shadowing hours prior to submitting each daily audio file as homework, as recorded in each participant's journal.

Table 5. Do You Think That Shadowing Has Been Useful for Improving Your English Proficiency in These Five Skills?

Participant	Grammar	Vocabulary	Listening	Speaking	Reading
A	4	4	5	5	4
B	3	3	4	3	3
C	3	3	5	2	5

The Table 5 showed the result of the questionnaire of which queried the participants' perceptions of the effectiveness of shadowing on improving their English skills using a five-point Likert scale, where 5 equals "Extremely useful"; 4, "Very useful"; 3, "Somewhat useful"; 2, "Only a little useful"; and 1, "Not at all useful."

After the survey, short interviews were conducted. Participants A, B, and C commented positively on daily shadowing homework. Participant A answered that it was her first experience submitting audio files on a Website. However, she could not provide details about the homework because, as she explained, "I am sorry that I did not work harder on these assignments." Participant B spoke about the effects of shadowing on her study habits: "Once the teacher told us that she would monitor our files, I practiced reading aloud the news scripts until I memorized them, and I made an effort to create perfect audio files. In my other course without shadowing, I did not study as hard because the e-learning program only recorded the time we were logged in, not how well we had studied. Because I had taken the course many times, I was bored with the study materials." Participant C said, "When I took the mid-course Versant™ English test, I was able to understand what the speaker said."

Participants B and C said it was better for them to practice shadowing compared with e-learning, which they had used in previous classes. However, it cannot be said that shadowing training influenced the total results of the participants' English proficiency. Participant C perceived that shadowing was "only a little useful" in improving her speaking skills. The Versant™ English test results showed no improvement in students' pronunciation.

Therefore, to enhance speaking skills with shadowing, additional methodologies need to be considered, such as providing greater feedback and support regarding pronunciation. More research is required to determine whether continued instruction could improve speaking skills further, or whether the limited improvement by shadowing is all that can be expected from this technique.

4 Study Limitations and Future Research

Participant C's speaking skills improved by shadowing. Participants B and C commented that shadowing training homework and submission of their audio files using Audio Dropbox were more effective than using the e-learning program. Participant C practiced for 60 hours. Her large improvement suggests that her progress was the result of her long hours of daily practice. Moreover, the participants' sub-scores of the Versant™ English test improved. However, two issues remain: 1)Although Participant C's speaking test scores improved greatly, she reported her perception that shadowing practice did not improve her speaking proficiency; and 2)The Audio Dropbox service by CLEAR has ended, which currently leaves us with no device to make relevant comparisons in future research. It was convenient for both students and teachers. Especially, students did not need to create their own account to use it and audio files. They did not upload or down load anything (CLEAR). To improve speaking skills by shadowing training, submissions of audio files that are checked by an instructor who provides feedback are important. Finally, as a preliminary study, the sample size was very small. Additional studies and participants are required to demonstrate the effectiveness of shadowing practice to improve speaking skills.

Further research can also focus on, for example, the most effective materials for shadowing content as well as their length and speed, most efficient delivery systems for student submission of shadowing homework, and shadowing's potential to raise students' motivation to master English.

5 Conclusion

In this study, to examine the effectiveness of shadowing training, participants were asked to conduct daily activities as homework. During the 15-week course, they submitted audio files of their shadowing work nearly every day. Two of the participants reported that they practiced their English skills more carefully than they had during previous classes in which they used an e-learning program. One participant showed a big improvement compared with her studies through e-learning.

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References

1) Matsumoto, Y.: “How far can shadowing improve listening ability in English classes?” Bulletin of Kiryu University, 25, 9-14, 2014.

2) Iino, A.: Ondoku・shadoingu ga spiikingu niataeru kouka [Effects of shadowing practice on Sspeaking],” The Journal of the Chubu English Language Education Society, 43, 37-42, 2014. Retrieved from https://doi.org/10.20713/celes.43.0_37

3) Kadota, S.:“Ondoku・shdoingu no bunseki hoho [The data methods of reading and shadowing]” In Suzuki, J. Eigo ondoku shidou handobukku (p. 385). Tokyo, Japan: Taishukanshoten, 2012.

4) Mishima, M., & Cheng, L.: “The impact of a computer-mediated shadowing activity on ESL speaking skill development: A pilot study,” L2 Journal, Volume 9 (1), 21- 35, 2017. Retrieved July 1st, 2017, http://dx.doi.org/10.5070/L29132493 Retrieved from https://escholarship.org/uc/item/56q742fr

5) Suzuki, J. & Kadota, S. ed. :“Ondoku・shadoingu deta no bunseki shuho [The data methodology of reading and shadowing],”In Eigo ondoku shido handobukku (p. 385), Taishukanshoten, 2012.

6) Hamada, Y.: “The effectiveness of pre- and post-shadowing in improving listening comprehension skills,” The Language Teacher, 38, 3-10, 2014.

7) Asahi Press: “Google's humanoid robot. English Express,” 30 (6), 25, 2016.

8) Rich Internet Applications: “Audio Dropbox.” Retrieved from https://clear.msu.edu/files/9514/1167/7981/RIA_A_Audio_Dropbox_Flyer.pdf

9) Michigan State University: “Center for Language Education and Research,” 2018. Retrieved December 13, 2016, from https://clear.msu.edu

10) Sumarshi, S.: “The Impact of Shadowing Technique on Tertiary EFL Learners' Listening Skill Achievements,” International Journal of English Linguistcs, 7(5), 184-189, 2017. doi:10.5539/ijel.v7n5p184

11) Versant™ Score Report: “Participants’ score report” presented by participants with permission, 2016. Retrieved from participants’ accounts

Appendix A: Sample Manuscript Used by Each Student Based on “Google’s Humanoid Robot”

Google’s most famous robot Atlas now acts even more like a human. The company released a video of Atlas showing off its updated skills. The robot can pick up a box with ease even after it is knocked from its hands. Moreover, when Atlas is pushed over from behind, it picks itself back up. Atlas uses sensors in its body to keep its balance as well as lasers in its head to navigate. The robot was created for disaster-recovery jobs that are not safe head to navigate.