

# Online pronunciation instruction for Japanese junior high school students learning English

日本人中学生むけのオンライン英語音声指導の効果の調査

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## **Abstract:**

This study is a mixed methods investigation using online instruction on the self-efficacy and listening skills of three Japanese junior high school students training for an English speech contest. The students participated in a 6-week online synchronous intervention during which they learned about English pronunciation, and how to differentiate and pronounce difficult sounds in English: /æ, f, v, θ, ð, w, l, r/ (Ingvalson, Holt, & McClelland, 2002; Lambacher, 1999; Lee, 2018; Saito, 2011). They also used Flipgrid, an online educational video-sharing platform, to record themselves reciting their speeches each week. The participants took pre and post-treatment surveys, and conducted a post-treatment interview. The results of the investigation indicated that online instruction could be beneficial to junior high school students, especially those who are shy or have lower confidence.

## **Key Words:**

Online learning, Pronunciation, L2 English Learners, Japanese, Junior High School, Speech Contest

## **Introduction:**

With the spread of COVID-19 in 2020 and the beginning of the Emergency Remote Teaching period (ERT) (Hodges, et al., 2020) when many schools were forced to start online instruction for safety reasons, online learning as a practice has received increased attention. Though the use of technology in the classroom is not a new phenomenon (Buston, 2013; Stockwell & Reinders, 2019), ERT has made the use of digital tools a necessity for students and educators alike, and research is needed to determine if or how the tools should be further developed. Even in Japan where the use of technology in the classroom has traditionally not been widespread (Ozawa, 2019), research into the use of technology has greatly increased (Kawasaki et al., 2020), though most of this research appears to be done at the university level rather than at tertiary schools and below.

Though research has had mixed results on the use of technology and online learning in the L2 English

classroom in Japan, there is evidence that it can be beneficial for raising English proficiency (McCarty et al., 2017) and reducing anxiety (Freiermuth & Huang, 2012). With previous research showing that Japanese learners traditionally have low confidence when speaking English (Edwards, 2012, Haveron, 2013), online learning could be a potential remedy. Indeed, with the Japanese Ministry of Education (MEXT) increasing the scope of English education in elementary and junior high schools (MEXT, 2014), ways to enhance and support student learning should be investigated.

To this end, the current mixed methods research utilized online learning as a platform to investigate the potential of remote teaching as a resource for Japanese junior high school students preparing for a speech contest. In this study, three junior high school students who were interested in training for a local English speech contest met with the researcher six times on Zoom (an online video-conferencing platform), and utilized Flipgrid (an online video sharing platform) to record and upload videos of themselves practicing their speeches. During the speech contest, students would have to recite an English essay from memory with special attention to pronunciation, rhythm and intonation, and delivery, thus the intervention focused on these language features. The participants were given a pre-treatment and post-treatment survey and listening test to assess motivation, confidence and L2 listening levels of the students. As the focus was on speech contests, the researcher focused on preparing a treatment that included both receptive understanding and production of problematic English minimal pairs for Japanese students, and stress and rhythm practice at the sentential level. After a brief description of the background of online learning and L2 English pronunciation for Japanese learners, the participants and methods will be described in more detailed followed by the results of the study and considerations for further research.

The research questions for this study are as follows:

1. What are the effects of online instruction on L2 English self-efficacy for Japanese junior high school students?
2. What are the effects of online instruction on L2 English listening skills for Japanese junior high school students?

## **Background**

### **English Education in Japan and Junior High School Speech Contests**

English education in Japan has traditionally started in the 1<sup>st</sup> year of junior high school, but as of 2020 began formally at the 5<sup>th</sup> grade of elementary school as mandated by the Japanese Ministry of Education (MEXT, 2014). As observed by Lee (2018), junior high school English education tends to be grammar and test focused, with little attention spent on oral skills. To that end, events such as speech contests can be expected to supplement this gap and give an outlet for students to practice their oral English skills.

In Japan, English speech contests have a long tradition for junior high school students to give them a chance to display their skills in English pronunciation, intonation and expression. Speech contests generally take place at the regional level, where 1<sup>st</sup> place winners advance to increasingly higher stages until they have the opportunity to perform at the national level. Usually, there are two types of entry

possibilities, one of which is choosing to recite a pre-written speech, and the other is for a student to create their own and recite that. At the event, speeches are rated by judges on native speaker-like phonology, as well as aspects of body language and speaking volume. Though it is said that there is fundamentally no “correct” pronunciation, there is a preference for English from *inner circle* countries (Kachru, 1985) where English is spoken as a first language such as the United States or Australia over *outer circle* countries, such as India, where English is spoken as a second language (Head, 2015).

Junior high school speech contest tests can be quite an involved. In Tatsukawa (2021), it was stated that the primary goal of the contests was to raise student interest in English, as well as giving students an opportunity to foster grammar and communicate skills. Generally, there are 4 judges (though this can differ by region) consisting of two ALTs (Assistant Language Teachers), one college professor, and one representative from the local board of education. Tatsukawa notes that scoring for speech contests are generally 100 points (30 points for pronunciation, 30 points for rhythm and intonation, and 40 points for delivery), and that training for the contests involves rigorous pronunciation practice (segmental and suprasegmental features of English) as well as training in English expressiveness. Indeed, in an article written about best practices for coaching junior high speech contest participants, Herbert (2014) emphasized helping students work on physical, visual, and vocal components of the speech delivery.

As a special note, during the peak of the COVID-19 pandemic when it was dangerous to meet in large groups due to increased infection rate, junior high school, and even high school speech contests, were either canceled, or contestants sent in pre-recorded videos of their presentations.

### **Difficult English Pronunciation for Japanese Speakers**

As with anybody learning a second language, particular features of the learner’s L1, or absent segmentals in the L1, can make mastering a second language difficult. In the case of Japanese L1 speakers learning English as a L2, this is no exception.

To begin, a segmental traditionally refers to the vowels and consonants known as segmental phonemes (Longman, 2014). Looking beyond the phoneme, a suprasegmental is “a term used in phonetics and phonology to refer to a vocal effect which extends more than one segment in an utterance, such as pitch, stress, or juncture pattern. In its contrast with ‘segmental’, it is seen as one of two main classes into which phonological units can be divided.” (Crystal, 1980; 337) In the case of Japanese L1 learners of English, Kamiyo (2013) noted that English instruction should focus on particular segmental, word stress (particularly loan words) and also sentential level stress and rhythm.

In the case of segmentals, several sounds in English are absent in Japanese making it difficult for L2 learners. In the case of English, there are 24 consonants created with different features such as voiced/voiceless attributes, tongue placement, and mouth shape (Cruttenden, 2008) where Japanese only has 14 consonants (Lee, 2018). Vowels are also more various in English, with there being 20 vowels, seven short, five long, and eight diphthongs (Cruttenden, 2008), with Japanese only having five vowel sounds (two front vowels /i, e/ one center vowel sound, /a/ and two back /u, o/ (Vance 1987)). Saito (2011) reported that the most problematic features for native Japanese speakers learning English were the /æ, f, v, θ, ð, w,

l, ɹ/ segmentals. These findings echo similar research into difficult English phonemes for Japanese learners, with Lambacher (1999) making similar conclusions about the /f/ and /v/, /θ/ and /ð/, and /w/, /l/, and /r/ as minimal pairs. Additional problematic features are /f/, /v/, /b/, and /w/ (Lee, 2018), /r/ and /l/ minimal pair recognition (Ingvalson, Holt, & McClelland, 2002), and consonant clusters such as /si/ & /zi/, /ti/ & /tu/, /di/ & /du/, /tju/ & /dju/, and /ji/ & /je/ (Kamijo, 2013).

For Japanese students learning English pronunciation, several suggestions have been made for training. Minimal pair training, that is selecting similar words such as [right] and [light] where only one segmental differs to highlight the sound difference, has been seen as a beneficial for Japanese learners in regards to /r/ & /l/ recognition (Ingvalson, Holt, & McClelland, 2002). Uchida and Sugimoto (2018) conducted a survey of 100 public junior high school teachers of Japan in regard to pronunciation teaching practices and found that repeating passages in unison, listening and repeating words or phrases, and phonetics training were common techniques. From their research, additional dictionary use and katakana scaffolding were suggested as pronunciation training enhancement.

### **Online Learning in Japan**

As this study will focus on using online instruction and tools, a brief background of online learning studies in Japan will be provided. It should be noted that technology is still not widely used in the classroom in Japan (Ozawa, 2019). Moreover, as of the writing of this article in April 2021, much research is forthcoming regarding the efficacy of online learning during the pandemic, but most of the research focused on university students rather than younger and teenage (grade-school) learners. So the applicability of the results of that research to Japanese junior high school students has not been validated.

Much of the research thus far in Japanese online learning has focuses on Mobile Assisted Language Learning (MALL) and Computer Assisted Language Learning (CALL), which essentially are research into using handheld devices or computers in an in-person class. The results of these studies have had mixed results. Some studies find that technology is beneficial for Japanese learners reducing anxiety (Freiermuth & Huang, 2012) and promoting willingness to communicate (Freiermuth & Jarell, 2006), as well as increased receptive and productive skills (McCarty et al., 2017). However, there is also evidence that technology can lead to increased anxiety especially when sufficient scaffolding is not provided on how to use the technology (Yoshida, et al. 2017) and that Japanese learners can also have low confidence while using technology (Ozawa, 2019). Thus while technology can be beneficial to Japanese learners, special care must be taken to provide learners with enough scaffolding as to how to use it as not all younger learners are necessarily skilled with technology (Ozawa, 2019).

### **Using Flipgrid to enhance English learning**

In this particular study, in addition to live mini-lessons taught by the researcher, the use of Flipgrid, an online video-sharing platform, was a major component of the treatment. Flipgrid is an online tool that allows educators to create private spaces online where students can create short (up to 10 minute) videos, and post for other students in the class to watch. Generally, this service is used to allow classrooms to

create online communities where ideas can be shared in video form, rather than chatrooms or message boards where information is generally shared via text. This platform has been found an effective way to boost feelings of community in online classes (Delmas and Moore, 2019; Lowenthal & Moore, 2020).

Though research is still forthcoming, past research has found Flipgrid a successful tool to facilitate second language learning. Budiarta & Santosa (2020) investigated think-pair-sharing practice done online using Flipgrid in the EFL classroom. In this teaching model, the researchers investigated 22 students' interaction with the topic of "storytelling". The results were that the students seemed to thoroughly enjoy the experience of using the online platform, as well as their speaking performance improving. Mango (2019) also found that students studying Arabic as a second language also found that Flipgrid was a valuable tool that enhanced their language learning and positively influenced their speaking and listening skills.

## **Methodology**

### **Participants and research site**

This mixed methods study consisted of three Japanese junior high school participants (two female, one male), all of whom were in their third year and 15 years old. The three students in this study expressed interest in entering a local speech contest, thus the researcher was invited to train them by their "cram school" (see below) instructor. For the duration of this study, 6 weeks from July 2020 to September 2020, the researcher was in Nagoya, and conducted instruction entirely online via Zoom (a video conferencing platform). The three participants were in Aomori, Japan (approximately 860 km from Nagoya), which is why online instruction was utilized, in addition to the reasons due to COVID-19 pandemic. The researcher had met these students in the past, though had not worked with them for an extended period of time. Since the participants were minors, consent forms were sent to their parents, and consent was acknowledged by all involved before proceeding with the research.

The participants were attending a "cram school" where the research was conducted. A cram school is an extra-curricular school that Japanese students often attend to supplement their normal education, and a place where they can learn a variety of school subjects (Math, Science, etc.). Students often attend these schools to increase their chances of getting into a higher level high school (to increase scores on entrance exams), and in the case of this research, these students were attending this school to supplement their English. Of note, this does not necessarily mean they have a higher interest in English compared to Japanese junior high school students of the same age who do not attend cram school as they are sent by their parents, but this would imply these students are of slightly higher ability in English than the average as they have received additional training.

This particular cram school is unique in that it is not a commercial chain conglomerate, but rather run by a single Japanese individual who has spent several years living overseas and is interested in education. While a traditional cram school will focus on test preparation, filling out worksheets, and is reminiscent of a junior high school classroom, this cram school has small group classes (maximum 6 students) and is more flexible in its curriculum. This school often invites native English speakers to work on communicative

competence with students, and holds holiday events where students in the school (from elementary 1<sup>st</sup> grade to 3<sup>rd</sup> grade junior high) can mix, and are encouraged to talk in English. To that end, while the school will help students with grammar and increasing grades, there is an additional focus on spoken English which is not common at other cram schools.

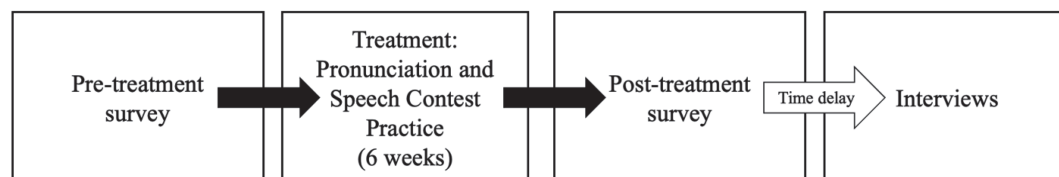
For online learning, it is important to note the location the students were in when engaged in the treatment as the environment is not necessarily a traditional classroom. For the one-hour sessions and treatments with the researcher, all three participants were physically present together in one room at the cram school sharing one computer. The researcher was joining via Zoom from another part of Japan. However, for the Flipgrid portion where they recorded their speech practice, students were completing this task individually from their homes as homework.

### Procedure & Material

This study followed a mixed methodology procedure recommended in Creswell (2015) called the “explanatory sequential design” in which the research begins with a quantitative strand, followed by a qualitative strand to reflect the results. In this case, a pre-treatment survey was given to establish a baseline, a treatment was applied, a post-treatment survey was conducted to see if or how the participants had changed after the treatment. Later a follow-up interview was administered to uncover more in-depth information. The objective of the treatment was to prepare the three junior high school students for a speech contest, so the researcher created a treatment based on Herbert (2014) which offered suggestions for speech contest preparation, with some additional content focusing on difficult phonemes for Japanese learners of English: /æ, f, v, θ, ð, w, l, r/ (Ingvalson, Holt, & McClelland, 2002; Lambacher, 1999; Lee, 2018; Saito, 2011). These sounds were also present in the speech the participants practiced with.

Figure 1

*Research design for the current research*



For the pre-treatment survey, data were collected regarding student perceptions of self-efficacy (research question 1) and an assessment of student abilities to differentiate difficult English sounds (RQ2). To collect information about self-efficacy in regard to English pronunciation, questions were adapted from Yang (2017) which also investigated self-efficacy related to English pronunciation learning, but with Chinese learners. For items other than the demographic questions, answers were collected on a 6-point Likert scale with “1” indicating a “strong no,” and “6” indicating a “strong yes”. Both pre- and post-treatment surveys were delivered via google forms, and the participants took the surveys on their

smartphones. The questions on the pre-treatment survey were broken into the following groups (Table 1). All the survey questions were presented in English with Japanese translations.

Table 1

*Pre-treatment survey question format*

Questions:	Type	Example:
<b>Affective Factors</b>		
Q1 – Q10	Demographic	How old are you?; How long have you gone to cram school?
Q11 – Q19	Motivation	I want to do a job that uses English in the future.; I want to travel abroad in the future.
Q20 - Q24	Self-efficacy: actual performance	I think people can understand me when I speak English.; I think I can say the sounds of English clearly.
Q25 – Q30	Self-efficacy: vicarious experience	When I see other students speaking English clearly, I think I can do the same.; I look up to friends or teachers who I think speak English very well.
Q31 – Q34	Self-efficacy: social persuasion	I have been told by my friends that I have good English pronunciation; I often am told I am good at English pronunciation.
Q35 – Q40	Self-efficacy: psychological index	English pronunciation is easy for me.; I am worried that people will not understand my English pronunciation.
<b>Minimal Pairs Listening Test</b>		
	Q41 – Q46 (5 items)	Minimal Pair Group 1: æ vs ʌ
	Q47 – Q51 (4 items)	Minimal Pair Group 2: f vs θ
	Q52 – Q55 (4 items)	Minimal Pair Group 3: f vs v
	Q56 – Q59 (4 items)	Minimal Pair Group 4: v vs w
	Q60 – Q63 (4 items)	Minimal Pair Group 5: ð vs z
	Q64 – Q70 (7 items)	Minimal Pair Group 6: l vs r

Table 1 contains the pre-survey item groups. The demographic group was created to collect background data about the students. Some motivation related question about ideal L2 self and ought-to L2 self based on Dörnyei’s L2 Motivational Self-system (Dörnyei, 2005, 2009) were included to obtain some basic motivational background about the participants. Related to self-efficacy, 4 parameters were used. “Actual Performance” related to how students perceive the efficacy of their English pronunciation. “Vicarious Experience” refers to how the students felt seeing other non-native speakers (teacher, peers, on tv) have seemingly successful pronunciation. “Social Persuasion” regards students receiving encouragement from others (friends and teachers) about their pronunciation, and finally “physiological indices” related to stress, feelings of ease, or comparing their skills to others when pronouncing English.

The remainder of the survey was a listening test. There were several audio files imbedded in the google form (one per minimal pair group) which the students could listen to up to 2 times (though this was self-monitored). The students would listen to an audio recording (of the researcher) reading several words, and

the students would select the word they heard from two possible minimal pairs. For example, participants would hear the word “cut” (from minimal pair group 1 (æ vs ʌ); Table 1) and could select “cut” or “cat”. The participants were not aware of the minimal pair groupings.

The post-treatment survey was similar to the pre-treatment survey, but with some additions and omissions. Eight demographic questions were removed because the data had not changed (e.g. school year), and several questions about their final confidence levels and their reaction to (enjoyment of) activities during the treatment were added. The listening test was exactly the same. As the surveys were delivered 6 weeks apart and the participants never found out if they were correct or incorrect with their answers, repeating the same listening test was assumed not to bias the participants.

Six months after the conclusion of the treatment, a follow-up interview with the three participants was conducted. Originally, the researcher had hoped to conduct the interview sooner, and individually with in-depth 30-minute interviews with each participant. However, due to the junior high school students’ schedules and access issues, a 30-minute Zoom interview with all three participants six months after the conclusion of the treatment.

For the speech material the participants used, “Miss Evans on the Titanic” was selected. Prior to the beginning of the research, COVID-19 and the spread of the virus in 2020 made the actual occurrence of the speech contest questionable, the researcher and cram school teacher agreed it would be better to have the participants all practice the same speech rather than choosing individual ones. To that end, “Miss Evans on the Titanic” from the junior high school textbook *New Horizon Course 3* was selected. This speech is popular among contestants in speech contests. This text includes multiple complex grammar patterns and all the difficult English phonemes focused on in this research.

## **Treatment**

The treatment was developed with the goal of enhancing participant pronunciation in preparation for a speech contest by (1) raising student awareness of difficult sounds for Japanese learners of English, (2) providing opportunities for the participants to practice and self-analyze their performance, and (3) providing coaching and feedback for the participants. Based on these objectives, a six-week treatment with Herbert’s (2014) speech contest recommendations was developed. Herbert (2014) stated that a coaches should (of interest to this context) (1) help students to parse the speech text; (2) review that the texts were parsed correctly; (3) help contestants through rehearsals for physical, visual, and vocal components of the delivery; (4) provide audio recording as a cue test and shadowing medium (also reading the parsed text); and (5) record the student’s best rehearsal and have them watch, parse and analyze.

In order to maximize points (4) and (5) of Herbert (2014), after each treatment session, participants were given a homework task of recording themselves on Flipgrid. Each week, the participants would upload a recording of themselves reading through the speech, and each week the researcher would give them direct, individual video feedback they could use to improve their next recording. They could also compare their prior recordings with their current ones, and see other students performances in the class. Cherez (2019) found that technology-mediated pedagogical tasks facilitated students’ increase in their

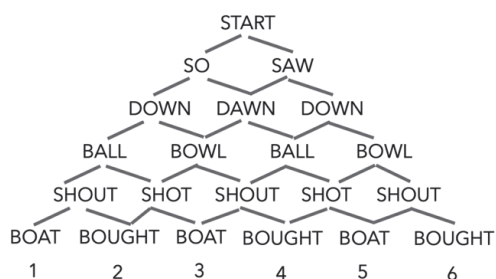


willingness to communicate and confidence, thus Flipgrid was identified as an ideal platform for the speech contest.

Six sessions were held between the researcher and the participants. Session 1 allowed for some time for the participants to complete the survey, and provided a meta-introduction to the sounds of English, English stress and rhythm, and why the sounds in some languages can be difficult for native speakers of different languages. This session also introduced the Miss Evans speech, and instructed participants on how to use Flipgrid. Sessions 2-5 started with warm-up activities where student would interview each other about their week, targeted phonetic minimal pair practice taken from common difficulties the researcher identified from the Flipgrid practice (L/R, B/V, S/SH, and OU/AW vowels) using games such as the “sound pyramid” (Figure 2), and some clapping rhythm/stress exercises while reading the speech (Figure 3). Session 6 concluded the treatment with participants given time to complete the post-treatment survey, play some pronunciation games, and most importantly compare their first and last speeches on Flipgrid to see the improvement they made. All of this was conducted via Zoom.

Figure 2

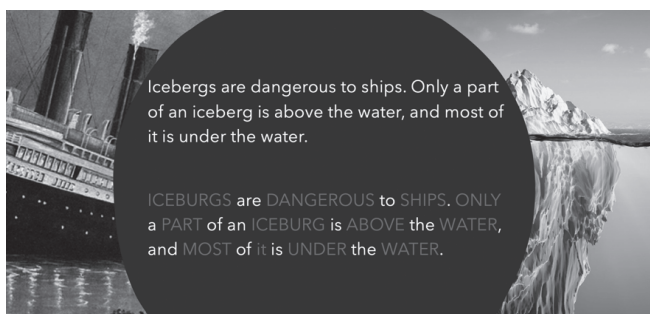
*Sound pyramid example*



A student starts at the top reading down the pyramid focusing on clear pronunciation. The listeners guess what number the speaker ends at. Ideally, the listeners guess correctly.

Figure 3:

*Rhythm/Stress clapping practice example*



## Analysis

The pre and post-treatment surveys were conducted in google forms, and from there data were imported into Microsoft Excel for Mac Version 16.49. Due to the small number of participants, the mean averages of the item responses were compared between the pre and post-surveys. The listening portion of the surveys were analyzed on an individual level to assess personal improvement between the surveys.

For the follow-up interview, a recording was created in zoom, and analyzed by the researcher.

## Results & Discussion

The results of the surveys show that the treatment was effective for the lowest level participant. To begin in the demographic section, all participants noted that they had received some pronunciation instruction in school, but they noted in an open-ended question that it was only repeating after a recording on a CD. As can be seen in Table 2, Participants 1 & 2 seem to have had initially higher levels of confidence with their English, where Participant 3 clearly was not confident. All the students were interested in traveling abroad indicating some intrinsic motivation to study English, and expressed some external pressure to study English which is likely related to high school entrance examinations on which English is a required subject.

Table 2

*Relevant demographic and motivation focused survey items*

	Participant 1		Participant 2		Participant 3	
	Pre	Post	Pre	Post	Pre	Post
I think I am good at English.	4	5	5	4	1	5
I want to travel abroad in the future.	6	5	5	5	6	6
It is necessary for me to learn English because people surrounding me expect me to do so.	6	5	6	3	6	6

For RQ1 regarding the effects of online instruction on the self-efficacy of Japanese junior high school students' English pronunciation, it was clear that there was a positive effect. Comparing the responses of the pre and post surveys, there is a clear change with Participant 3. Participants 1 and 2 show a marginal increase or similar results for self-efficacy on their post-treatment questionnaire, but Participant 3 shows a particularly large increase in whether they thought they were good at English (Table 2), and in different self-efficacy parameters (Table 3). Participant 3 started with a relatively low self-image of their efficacy in English pronunciation, so the meta-knowledge and specific pronunciation practice likely helped them. Additionally, this participant was noted to be rather shy, so the structure of the treatment using video likely helped them speak out and gain confidence.

Table 3

*Self-efficacy results from pre and post-treatment survey*

	Participant 1		Participant 2		Participant 3	
	mean	std. dev.	mean	std. dev.	mean	std. dev.
actual performance (pre)	3.80	1.10	4.40	0.89	1.80	0.44
actual performance (post)	5	0	4.40	0.55	5.20	0.44
vicarious experience (pre)	5.33	0.52	4.83	0.98	2.00	0
vicarious experience (post)	5.66	0.51	4.67	0.81	6	0
social persuasion (pre)	4.25	0.50	5.25	0.96	2.25	0.50
social persuasion (post)	4.50	1	6	0	5.5	0.577
psychological index (pre) – pos	4	0	4.66	0.57	1.66	0.57
psychological index (pre) - neg	4.33	0.57	3	1	3	1.73
psychological index(post) - pos	4	1	4.33	0.57	5	0
psychological index(post) - neg	2	1	3	1.73	1.6	0.57

*Note.* “psychological index” was broken into two parts because some questions had “not” in the question (e.g. I often think my pronunciation is not as good as other students.). Thus, “pos” relates to questions that view the self positively (e.g. I feel comfortable reading English out loud in front of others) where “neg” responds to questions that view the self negatively.

Regarding RQ2 and the effects of online instruction on listening skills, there were also some positive results. The increased feelings of self-efficacy for Participant 3 also comes with a marked increase in ability. As detailed in Table 4, Participants 1 & 2 already had a high ability to parse the sounds of English with Participant 1 having 25/28 correct answers on the listening test, and Participant 2 having a perfect score both times. This is in stark contrast to Participant 3 who answered 15/28 items correct on the pre-survey, and 25/28 questions correct on the post.

Table 4

*Results from listening test on the pre and post-treatment survey*

Minimal Pair Groups; correct answers	Participant 1		Participant 2		Participant 3	
	Pre	Post	Pre	Post	Pre	Post
Group 1: æ vs ʌ (5 pairs)	4	5	5	5	1	4
Group 2: f vs θ (4 pairs)	3	2	4	4	3	4
Group 3: f vs v (4 pairs)	4	4	4	4	4	4
Group 4: v vs w (4 pairs)	4	4	4	4	3	4
Group 5: ð vs z (4 pairs)	4	4	4	4	2	3
Group 6: l vs r (7 pairs)	6	6	7	7	2	6
<b>Total</b>	<b>25</b>	<b>25</b>	<b>28</b>	<b>28</b>	<b>15</b>	<b>25</b>

Though Participant 1 got the same number of items correct, there was a slight shift. Their score increased in group 1 with the æ & ʌ minimal pair, but decreased in group 2 (f vs θ). It should be noted that Participant 1 struggled with producing the θ sound quite a bit on Flipgrid. Though their awareness of the

phoneme likely increased, they had not yet reached mastery. The other mistake in group 6 (l vs r) was the same as the pre-test.

Participant 3 however had noticeable increases in the minimal pair groups. Though not perfect, in groups 1, 2, and 5, the scores increased to over 50% in all cases. So this treatment did have an impact on them.

Also of interest to the researcher was how the participants responded to the treatment. From Table 5, it is clear that all the participants enjoyed the treatment, and that Flipgrid was a useful tool for them. The low scores on the final question in Table 5 regarding ‘embarrassment’ are a positive indicator as it shows that they largely disagreed with the statement.

Table 5

*Post-survey questions related to the treatment*

	Participant 1	Participant 2	Participant 3
It was fun to work on English pronunciation.	6	6	6
I enjoyed making the video on Flipgrid.	6	6	6
I feel more confident than before about speaking English.	6	4	6
I think the teacher’s comments helped me improve.	6	6	6
I was embarrassed in class when speaking English in front of other students.	1	2	1

In the follow-up interview, due to the group nature and limited time allowed, only a few questions could be asked. Each participant did mention that they still felt good about their English pronunciation, and though they listed “many words” and “grammar” as things they were worried about for English learning in high school, English speaking was expressly mentioned as something they weren’t worried about. Parts of the treatment that they remembered related to pronunciation were the importance to pause between words and stressing words, as well as that each sound has a detailed way to create it. Finally, they mentioned that Flipgrid and the sound pyramids had been particularly enjoyable for them, and that Flipgrid was particularly helpful in letting them see their progress and good for studying.

## Conclusion

For speech contest preparation, increasing self-efficacy, and increasing ability related to English pronunciation for Japanese junior high school students, targeted online instruction seems to be effective. This research indicates that not only do junior high school students have little barrier using educational technology and participating in online synchronous instruction, but that it can have positive effects as well. Though the researcher notes that it was necessary to have the cooperation of the cram school teacher to set up the computer for the participants, they also had no problem operating Flipgrid and using the technology indicating that they are adept. This process did take some onboarding for them though in the first week of instruction.

Also of note here was the particular benefit that this research had to Participant 3, who had the most

radical improvements both in perceptions of self-efficacy and actual ability to distinguish difficult minimal pairs. Online instruction, and moreover the ability to require shy or low level students to create content and view themselves on video seems meaningful for the demographic. This could be of benefit for Japanese elementary and junior high school students who tend to be shy and apprehensive about speaking English.

The potential that online instruction and video sharing apps offer students of this age in the way of enjoyment, benefit of seeing progress, and personalized feedback that can be revisited seems to be a few benefits of online instruction. It would be worthwhile to expand research of this nature to see what different apps and educational technology could benefit students, and especially for less confident students. It is acknowledged here that this study only comprises the results of three students and lacks a control group, thus research containing a wider variety and larger number of students is necessary to test the validity of the findings here. However, the preliminary results of this study indicate that further research could be fruitful.

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