Potential of Voice Recording Tools in Language Instruction

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INTRODUCTION

One of the most prevailing difficulties I have faced as an English instructor is students' dependence on teachers even though many language classes have been shifting from teacher-centered to student-centered influenced by the communicative language teaching (CLT) approach. Class evaluations and needs analyses often reveal that many students expect every single one of their errors to be corrected by teachers. Some students even attribute their lack of improvement to not being corrected promptly. Prompt error correction or individualized feedback from teachers may be beneficial for students, but it is unlikely to be feasible for teachers to listen and respond to students individually all the time, especially given constraints such as large numbers of students and limited class time.

Another major issue I have faced is a lack of opportunities for students to speak English outside the classroom. In the English as a foreign language (EFL) setting, generally, the only chance for speaking English occurs in the classroom. Surprisingly, even in the ESL setting, this issue arises when students interact with peers or family from the same native language group outside the classroom.

My teaching career as an English instructor started at a private conversation school in Japan. I taught EFL there for two and a half years. I taught beginning, intermediate, and advanced conversation classes as well as preparation courses for the Test of English as a Foreign Language (TOEFL). Student population varied in age, ranging from 18 to 80 years old. The average class size was small, allowing up to eight students in one class. Since it was a conversation school, the goal of the classes was to improve students' communicative abilities in English, and students were highly motivated to develop their English speaking and listening skills. My classes met once a week for 50 minutes during a six-month term. Students had access to authentic listening materials outside the classroom, and they were motivated to expose themselves to English. Therefore, they had the means to receive authentic input in English. However, as is often the case with most EFL settings, for many students, the only opportunity to practice speaking English was limited to their class time. The lack of output made it challenging for them to improve their speaking ability, especially in regard to fluency. Students had difficulty getting high scores in the speaking section of the TOEFL. Instructors at the conversation school did not hold office hours, so directly helping my students practice speaking English outside the classroom was difficult, although I occasionally had ten-minute, face-to-face meetings with individual students to talk about their learning progress and provide feedback between classes.

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There was a discrepancy between how much focus my students and I wanted to place on pronunciation instruction. In Japan, people tend to regard those who speak English without a foreign accent to be fluent and proficient (McKenzie, 2008). Therefore, many of my students wanted to improve their pronunciation; many hoped to lose their Japanese accent. As an instructor, eliminating a foreign accent was not the objective of pronunciation instruction; instead, what was significant was the intelligibility of the students' utterances. Hewings (as cited in Brown, 2012) suggested that the goal of English pronunciation has recently become to achieve pronunciation that is intelligible in international communication. Therefore, I corrected my students' pronunciation in class only when their errors inhibited meaning or subsequently hindered communication. Nevertheless, my students wanted me to correct all their pronunciation errors and provide prompt feedback in class, but due to the limited class time, it was not plausible to spend a significant amount of time on error correction or intrusive individualized feedback.

In terms of grammar, students were able to speak English with accuracy that was required at their proficiency levels as a result of the grammar-focused English education in Japan. However, even when they did make grammatical errors in class, at times I could not correct them right away due to the risk of embarrassing them. I faced complicated social hierarchies in my EFL classes when workers from the same company were in the same class. Since they had different statuses in their workplace, error correction was a sensitive issue to be considered. It would have been inappropriate to correct their errors in front of fellow workers because there was a high possibility that those students might lose face. As a result, some students kept making the same errors. Not being able to provide opportunities to interact in English outside the classroom with my highly motivated students or not being able to provide them individualized feedback regularly led to my ongoing frustration.

I also taught EFL at a private high school in Japan for two years. The objectives of the courses and institutional needs were different from my previous classes. In Japan, high school students have to take and pass high-stakes university entrance exams to get into college. Most of them are designed to assess listening comprehension, grammatical knowledge, and writing ability of test-takers and usually do not aim to assess speaking ability. Preparing the students for those exams was the highest priority of the school; therefore, my attempts to incorporate speaking practice in class were not appreciated. Consequently, I could not provide students with much class time devoted to speaking even though some of the students were motivated to learn.

There was one course, however, that focused on aural and oral communication. The average class size was big, comprising about 40 students. Class met for 50 minutes once a week over one academic year. Consequently, there was not enough time for students to practice speaking. Many students were interested in improving their speaking abilities, but some did not speak up in class. A lack of confidence might have caused them to sit quietly in class, which deprived them of the opportunity to speak, contributing to even less confidence in speaking. In addition, some students were simply not motivated to practice speaking English, possibly due to adolescent group pressure created by Japan's group-oriented homogenous society as can be seen in the Japanese saying, "the nail that sticks out gets hammered in." Some students intentionally attempted to speak English with a thick Japanese accent or remained quiet so that they would not stand out. In addition to the time constraint and class size, this emotional barrier made it hard for me to assess my students' actual speaking abilities and thus provide individualized feedback.

In the United States, I also taught ESL. The Community Language Program (CEP), where I taught, is an English language program run by the Applied Linguistics (AL) and

Teaching English to Speakers of Other Languages (TESOL) program at Teachers College, Columbia University. It is dedicated to teaching ESL to adult learners with diverse backgrounds, and the classes are taught mostly by graduate students twice a week for 2-hour sessions over a 10-week period. The CEP curriculum pursues a theme-based and CLT approach to integrate the theory and practice of language teaching. The CEP offers integrated-skill courses, focusing equally on the four skills of listening, speaking, reading and writing, as well as grammar. Various course levels, ranging from beginning to advanced, are offered, and I taught three myself. The average class size is relatively small, and my classes had about ten students. The overall student population consisted of English language learners of diverse nationalities who were residing in New York City. They varied in age, educational background, and native language, as well as motivation for studying English. The students came from communities where they can easily communicate in their native languages, which discouraged the students' use English outside the classroom.

While the purpose for the majority of the students was to improve their everyday communication skills in English in order to actively participate in their local communities, others also aimed at improving their English skills to pursue higher education in the United States. A needs analysis revealed that improvement of speaking abilities was the highest priority for most of the students. Although they were placed into the same level class, each student needed to work on different components of speaking ability pertaining to their needs coming from very diverse backgrounds. Individualized feedback would have been beneficial for these students, but prompt feedback in class would have interfered with the smooth flow of communication during the restricted class time, the only chance for most students to produce oral output in English. Therefore, unfortunately not much time could be spent on this.

Looking back at my EFL and ESL teaching, I have encountered common recurring issues such as the students' lack of oral output, difficulty of providing individualized feedback, and students' dependence on teachers. In order to enhance students' opportunities to speak English outside the classroom, and at the same time, to find solutions to other prevailing issues faced by language instructors, I would like to investigate the potential of voice recording tools through a review of the literature and make suggestions of possible ways of using voice recording tools for language instruction.

REVIEW OF THE LITERATURE

Uses of Voice Recording Tools in Language Instruction

Voice recording tools have been introduced and used in a variety of ways in language instruction in an attempt to provide learners with opportunities to produce oral output "as they allow language students to practice and enhance their speaking skills outside the classroom while receiving feedback on their performance" (Pop, Tomuletiu, & David, 2011, p. 1199). Numerous studies and theories suggest that output is essential for second language learning. Swain and Lapkin (1995) emphasized the importance of output, pointing out that it would promote observation as well as fluency. One of the ways they suggested to increase output from learners is by recording so that the learners could listen to, assess, and edit their own recorded material.

One of the very first voice recording tools that had been used in language instruction was with cassette tapes, and students had to physically carry around the cassette recorders to record

and listen to their oral production. Fortunately, digitalization of voice recording tools and the growing rate of Internet access around the world have greatly improved the feasibility of incorporating these tools and expanding the possibilities of voice recording tool use in language instruction. Nowadays, these technologies enable learners to record their voice and transmit audio files. Voice e-mails, podcasts, and audio-blogs have become popular means to incorporate speaking activities outside the classroom.

The emerging technologies have also made distant language- and self- learning more effective in terms of aural/oral skills. Speech recognition and synthesis technologies are gaining popularity in these learning settings, and they may be considered as voice recording tools. In this paper, nevertheless, I would like to restrict the area of investigation solely to the potential of voice recording tools that could supplement classroom instruction. Although video-taping might be also included as a voice recording tool in a broad sense, applications of video recording in language instruction will be excluded from this paper since the visual elements of the video might add more effects (e.g., affective factors, dynamics of non-verbal cues) to the learning process apart from the ones using mere voice recording functions.

Voice recording tools are often incorporated into language instruction for homework or in-class activities. In order to examine the potential of using these tools, three major types of empirical studies will be reviewed. First, the possibilities and limitations of using voice recording tools for pronunciation improvement will be discussed. Second, outcomes of and perspectives towards asynchronous audio-interactions and feedback will be addressed. Finally, possibilities of promoting learners' awareness through self-reflection and self-assessment of their own recordings will be investigated.

Voice Recording Projects Specific to Pronunciation

Research specific to pronunciation using podcasting is still relatively new. However, podcasting has often been used in language instruction in an attempt to foster pronunciation. Lord (2008) conducted a study that specifically targeted pronunciation. She incorporated a podcasting project in which students in an undergraduate Spanish phonetics class recorded themselves reading scripts, reciting tongue-twisters, and giving impromptu speeches six times during an academic semester. The students uploaded and self-assessed their own recordings. Three judges, including one native Spanish speaker with a background in phonology and phonetics rated the pre- and post-project recordings to compare the students' pronunciation. In addition, students received written comments from their peers. The research was designed to investigate how recording would affect students' attitudes toward pronunciation and whether it would help students improve their phonetic articulation. The results suggested that both the attitude and pronunciation of students improved. Students were more concerned about the accuracy of their pronunciation after the project.

Similarly, Ducate and Lomicka (2009) investigated learners' progress in pronunciation through podcasting activities by focusing on their accentedness and comprehensibility. Intermediate learners of French and German at a university in the US participated in this study. Students created a total of eight recordings, including scripted reading and impromptu speeches that were contextualized around the theme of studying abroad. After they uploaded their recordings, they also received constructive written feedback and comments from native speakers who were assistants of the study. For each language, two raters listened to the pre- and post-project recordings, and the results revealed that there were no significant differences between the

performances in both scripted reading and impromptu speeches, which contradicts the findings of Lord (2008).

Brown (2012), in an ESL class setting, used voice recordings and self-assessment. He not only gave his students feedback, but also individualized the class materials according to the students' self-reflection of their performances. In his study, the students listened to native speakers' recordings from a variety of English speaking countries and then recorded themselves by reading the same scripts they had listened to. During his in-class instruction, he incorporated an awareness-raising activity in which students talked about similarities and differences between various accents of English. Students listened to their own recording and analyzed what they would have to work on in their next recording. Depending on what the students thought they would need, the instructor provided them with individualized pronunciation practice packets. The initial questionnaire indicated that students were aware of their difficulty pronouncing specific segments of English sounds. As the project progressed, students' attention shifted from segmentals (e.g., vowels and consonants) to supra-segmentals (e.g., intonation, linking, and sentential stress). The recording project was viewed as a success in enhancing the students' intelligibility. In terms of their attitudes and perception of improvement, the post-project questionnaire revealed that the students appreciated the extra opportunities of oral output outside the classroom and felt that their pronunciation did indeed improve.

These studies imply that recordings and podcasting alone cannot improve pronunciation significantly. Consistent instruction and practice in class are needed in combination with using recordings and podcasting. Lord (2008) and Brown (2012) both found that there was improvement in students' performances, but the factors that contributed to the change in pronunciation remains unclear. The participants in Lord's (2008) study received instruction in Spanish phonology and phonetics in class, and those who participated in Brown's (2012) received classroom instruction and individualized pronunciation practice packets. In Brown's case, judgment of students' progress may have been influenced by the fact that the researcher had also participated in the study as the rater and instructor. Nevertheless, it is interesting to note that the participants in Brown's (2012) research shifted their attention to supra-segmental features of their pronunciation. They may have found similarities in the supra-segmental aspects of English pronunciation rather than the segmental among various accents of native English speakers, which would have made students think that features, such as intonation, linking, and sentential stress should be worked on for better pronunciation.

The participants in the studies discussed above were actively engaged in creating recordings and podcasting, and recognized the importance of improving their pronunciation; however, evidence of the reliability and validity of the learners' self-assessment was not adequately provided, making the findings equivocal. Dlaska and Krekeler (2008) addressed this issue and conducted research in which they compared the self-ratings of advanced German learners with ratings given by native German speakers. The participants recorded and listened to themselves reading scripts. They then compared their own recordings and the ones recorded by a native speaker in order to find their own mistakes. The results showed that although the learners found more incidents of errors in their recordings than the native speaker raters did, the mistakes pointed out were greatly inconsistent with those identified by the native speakers. This indicates that the learners were critical in the self-assessment of their own pronunciation, but could not necessarily recognize their own mistakes accurately. The sounds that the learners found hard to rate were the ones that did not exist in the phonemic inventories of their native languages and the

ones that they had experienced difficulty in pronouncing during the process of their own language learning.

The questions of whether or not the method of using pronunciation self-assessment is reliable and whether recordings directly contribute to improvement in learners' pronunciation remain unanswered. However, it should be noted that self-assessment of pronunciation provides possibilities of enhancing learners' awareness of their own performance. In addition, it can contribute to increased motivation in practicing speaking by having the students sense improvement in their pronunciation and receive constructive comments and feedback from teachers and peers. Also implied from the studies is that consistent pronunciation instruction is necessary as a supplement to recording activities in order to improve pronunciation in a short period of time, such as in an academic semester. Furthermore, Dlaska and Krekeler's (2008) findings suggest that explicit instruction on sounds that do not exist in the learners' native languages would be beneficial to facilitate the learners' awareness of the sounds.

Voice Recording Projects for Asynchronous Interaction and Feedback

In recording activities, feedback from teachers and peers seems to have a positive influence on the speaking performance of learners. Recently, asynchronous feedback and asynchronous interactions using voice recording technologies, as opposed to synchronous in-class feedback and interactions, are gaining popularity in language instruction. They are used to enhance aural and oral communication skills and promote peer-to-peer interactions outside the classroom in the target language. Asynchronous voice recording activities also enable teachers to provide individualized feedback and comments.

McIntosh, Braul, and Chao (2003) designed an asynchronous voice conference activity to enhance students' speaking and listening skills in two English for Academic Purposes (EAP) classes. The students completed listening assignments and discussed the topics through audio recordings. Survey results showed that the students were enthusiastic about the peer-to-peer asynchronous interaction. For the majority of the students, experience with asynchronous conference was enjoyable given the advantages of being able to listen to themselves and notice their own mistakes. Although responses were mostly positive, there were some students who expressed their discomfort in sharing recordings with others and in regard to the time delay in responding. Although almost half of the students recorded spontaneous speeches, the possibility of participating with rehearsed speech was mentioned both as a strength and weakness of this particular activity.

Likewise, Pop, Tomuletiu, and David (2011) integrated asynchronous audio interaction tools in an EFL class for adults in Romania where there were challenges coming from learners' varied levels, different learning styles, and lack of confidence. The students recorded their answers to given discussion topics and responded to other students' recordings in the form of audio recordings and written comments. Students' opinions and reactions were very positive, and they were actively engaged in the asynchronous audio interactions online mainly because it allows the rehearsal and editing of audio posts, and can also help save face and build confidence. Expectations of receiving feedback from their peers and teachers motivated the learners as well.

Learners were highly engaged in asynchronous audio discussions in these two studies. They also felt relatively unthreatened by the medium. One possible explanation could be that the students were focused more on negotiation of meaning than on linguistic form. While working with peers, students did not have to provide linguistic feedback, thus paying more attention to the

content of the recordings, which is what might have encouraged the students to willingly take more risks. Having their peers as an audience should have also contributed to their increased motivation. Learners would have been able to participate without restriction because dominant students with higher proficiency cannot interfere; therefore, this might have developed a greater sense of ownership in the students' own language learning. However, it should be noted that some students in McIntosh et al.'s (2003) study also expressed discomfort sharing their recordings with others. One class website was used to upload and share audio files in these two studies, but having students create and manage their own blog might have addressed this issue.

Audio-taped journals have also been incorporated in language instruction for similar purposes. Dantas-Whitney (2002) used audio-taped journals in content-based ESL instruction, and Ho (2003) in an EFL class. In these two studies, the significance of opportunities to listen to individual students and to provide unthreatening personalized corrective feedback was mentioned as advantages from the teachers' perspectives. The majority of the students in both studies viewed the use of audio-journal as a positive language learning experience. Dantas-Whitney (2002) mentioned that students were able to personalize the content covered in the classroom by relating it to their experiences and opinions in the process of recording audio-journal entries. Ho (2003) considered journal entries as a tool to help students produce oral output. Accumulation of their journals might provide learners with a sense of achievement and strengthen a sense of ownership of their own learning, which would have led to boosted motivation.

More recently, the integration of blogs in language instruction has attracted the attention of teachers and students. Pinkman (2005) used blogs in her EFL class and had students write entries and comment on other classmates' posts. It was suggested that the use of a blog in her study encouraged and motivated the students to interact in English online. Considering the advantage of using blogs, Hsu, Wang, and Comac (2008) as well as Sun (2009) introduced audio-blogs in an ESL and EFL class respectively, and had students submit and archive their oral outputs. The students in both studies actively participated in audio-blogging activities by recording themselves, leaving both oral and written comments on others' posts, receiving feedback and comments from the instructors and peers, and optionally self-assessing their own performance. Having an individual blog like an electronic portfolio seems to give students a great sense of achievement. Hsu et al. (2008) emphasized the ease of use as key to successful learning through audio-blogging because "this feature helps reduce students' cognitive load in learning" (p. 184). Furthermore, they stressed affordability and ubiquity of technologies as having significant effect on the facilitation of language learning.

Ogata and Yano (2003) also suggested that ubiquitous technologies support language learning from the findings of their pilot research in Japanese language instruction. Integration of mobile phones provided a positive outcome in their study. Use of mobile phones for audio-blogging may be able to promote regular access and frequent updates of students' performance where mobile phone ownership is almost universal among students.

In the studies of asynchronous recorded interactions, audio-taped journals, and audio-blogs, the actual improvement of oral competence was not discussed or formally assessed, but they all promoted active participation of the learners. However, in spite of the many positive effects use of these methods have on language learning, many teachers still avoid integration of these technologies for fear that audio recording activities are time-consuming and can become burdensome for teachers. In fact, Hsu et al. (2008) mentioned that the instructor who used the

audio-blog in the study wished there would have been less than ten students to effectively provide individualized feedback and make better use of the audio-blogging features.

Features of rehearsed speech were mentioned both as an advantage and disadvantage in these studies. Rehearsing before recording alleviates students' anxiety and pressure of impromptu speaking and can help build up comfort and confidence. However, the drawback of allowing rehearsed speech would be that students would not be able to use communication strategies such as circumlocution and paraphrasing that would typically be utilized in a spontaneous speaking situation. Moreover, asynchronous audio interactions have the major disadvantage of not having interlocutors.

Voice Recording Projects for Self-reflection and Self-assessment

Voice recording tools have long been used to self-reflect and self-assess oral performance of reading scripted texts or monologues in language instruction. However, considering the drawbacks of not having interlocutors and the different characteristics of recording practice from real-world interactions, researchers and teachers have started incorporating self-assessments of recorded dialogues and conversations. The findings of these research projects cited positive reactions of students and the benefits for fruitful language learning (Cooke, 2013; Huang, 2008; Lynch, 2001, 2007; Mennim, 2003, 2012; Stillwell, Curabba, Alexander, Kidd, Kim, Stone, & Wyle, 2009).

These studies have attempted to investigate how learners can become cognizant of their own language performance. Mennim (2003) suggested that rehearsed oral output and revisions of their recording after self-reflection would promote more sophisticated and complex use of vocabulary and language form. Huang (2008) mentioned students noticing their use of simple vocabulary in their recordings. Stillwell et al. (2010) also found increase in complexity after recording, self-assessing and revising students' oral output. However, students were a little more dependent on the instructor's feedback rather than noticing on their own in both cases during the revision phase, and the students in Mennim's (2003) research greatly changed the content of their presentation the second time, so the improvement in the complexity of vocabulary and form from self-assessment alone cannot be assessed clearly.

In terms of grammatical accuracy in oral output, learners generally performed better after self-reflection (Cooke, 2013; Huang, 2008; Lynch, 2007; Stillwell et al., 2009). Huang (2008) suggested that having students listen to non-native speakers' authentic output is one way to enhance the students' ability to focus on form. Lynch (2007) compared the improvement of speaking performance between two classes. In one class, the teacher initiated feedback of the students' recordings, and in the other class, students initiated self-reflection of their recordings. It is important to note that the recordings made later in the courses indicated that the class in which students initiated self-transcribing and self-reflection outperformed in accuracy. Further research might be necessary to determine whether revision of the recording is what led to improved accuracy in students' oral output because Lynch (2001, 2007) and Mennim (2003) had students revise their recorded dialogues and presentation but keep the same content. Therefore, students could have simply memorized the revised dialogues and presentations.

Huang (2008) and Cooke (2013) also mentioned that the students noticed their mispronunciation of English through self-transcription of their own dialogues and conversations, but improvement in pronunciation or students' perception of improvement in this area was not assessed. As mentioned in the above section, self-assessment of pronunciation is very hard for

adult foreign language learners, and a transcription often does not show the supra-segmental features of pronunciation, such as intonation and rhythm. Therefore, further research needs to be conducted on the use of voice recording tools for promoting pronunciation improvement.

Huang (2008) and Mennim (2012) incorporated a follow-up activity in class in which students talked about their self-assessment and negotiated linguistic form from their recordings. This could have activated the students' meta-linguistic awareness and knowledge, and thus might have also helped facilitate self-reflection of form.

As indicated above, one of the most encouraging benefits of self-assessment through self-transcribing of voice recording would be the facilitation of noticing skills. Students perceived their weaknesses and error patterns in the self-transcribing process. They were successful in noticing form during the self-transcription phase with minimal help from peers and teachers, and many students in these studies enjoyed and appreciated the self-transcribing activities. It is also interesting to note that through the self-assessment of audio recordings, some students noticed influences in non-verbal cues that were helping them understand each other (Huang, 2008), which might help expand the possibility later for instruction of communication with voice recording tools.

PRACTICAL APPLICATIONS

The research studies reviewed above illustrate possible ways of integrating voice recording tools in language instruction. In order to provide effective and fruitful instruction, it is important to keep in mind that the uses of voice recording tools should be aligned with instructional goals and pedagogy along with students' proficiency and age levels. The levels of students' digital literacy should also be taken into consideration.

In both EFL and ESL settings, all of the voice recording tools introduced in the above studies make positive impacts on language instruction. Technologies for asynchronous voice interactions such as asynchronous conferences, audio-taped journals, and audio-blogs promoted learners' motivation to interact with peers in the target language, thus contributing to the enhancement of speaking skills. In addition, voice recording and peer feedback are student-initiated and student-centered activities, which could make students more independent and responsible of their own learning. In audio-taped journals and audio-blogs, archives of chronological voice recordings can create a sense of accomplishment in students. Self-assessment of their oral performance through transcribing tasks also yielded positive results. The ways in which voice recording tools were used in the studies matched the pedagogical needs and goals well.

All methods covered in this paper seem to increase opportunities of more oral output. The research of asynchronous interactions through voice recording implied that peer-to-peer feedback and expectations of having a possible audience encourage learners to actively participate in the interactions. Therefore, integration of audio-taped journals from Ho's (2003) model seems effective. Likewise, asynchronous discussions as the ones Pop et al. (2011) implemented might suit the EFL settings. Audio-blogs seem to have the greatest potential among the asynchronous audio interaction tools because they can serve as electronic portfolios that enable learners to easily upload and archive their recordings. Also, students can promote their own weblog, which creates a sense of responsibility and ownership of their language learning process. Moreover, self-assessment of voice recordings assist learners in becoming more aware of their own

performance, including accuracy of linguistic form and pronunciation. These tasks can be appreciated where grammatical knowledge focusing on accurate performance is assessed in formal tests.

Benefits of both asynchronous voice-recorded interactions and self-assessing tasks can be maximized by creating an audio-blog similar to the one Hsu et al. (2008) incorporated in their study. Self-assessment tasks can be completed using the medium of weblogs. The advancement in technology today allows us to link multiple different free online services with each other. In creating an audio-blog for each student, teachers need to choose an Internet-based weblog that allows insertion of audio files or the links to other voice recording services.

It is important to ensure that the technologies incorporated in language classrooms are ubiquitous and user-friendly as emphasized by Ogata and Yano (2003) and Hsu et al. (2008). Lord (2008) pointed out that students in her study experienced technological glitches, and so this resulted as being one of their least favorable aspects of the podcasting project. Pop et al. (2011) also mentioned that the lack of familiarity with technologies could be threatening to learners. Therefore, teachers should be careful not to choose technologies that demand heavy cognitive load.

That being considered, the combination of a free online blog and note-taking application/software can be one promising option for creating audio-blogs. For example, *Blogger* is a useful online blog site that can often be used in the language classroom. Hsu et al. (2008) concluded it is very user-friendly and most students have no difficulty utilizing it. It allows users to easily post, edit, and comment (Google Inc., 1999). Hyperlinking is also possible on Blogger, allowing users to include various contents without quickly using up its storage. As for the note-taking application/software, *Evernote* has been broadly used in educational settings. Evernote is a free online software/service designed for note-taking and archiving pieces of information in the form of texts, sketches, images and voice memos. It can be downloaded and installed onto many operation systems including computers, mobile phones, and tablets. As long as the application is installed, all the information users update is kept synchronized on any device. Files on Evernote can be shared through e-mail and hyperlinking (Evernote, 2003). Any device with a speaker enables users to record their voice almost anywhere, anytime. Evernote maintains files in chronological order, which makes it easy for users to archive their notes. By combining these two technologies, each learner can create an audio-blog that enables them to self-assess their performance, give peer-feedback to classmates, and submit recordings with ease.

Different teaching contexts and student populations require different methods and instruction. Therefore, in addition to the necessary aspects such as pedagogical needs and goals, proficiency levels and age of learners, teachers should pay attention to levels of digital literacy among learners, available resources, practicality, and emotional factors. Therefore, I would like to question the feasibility of incorporating audio-blogs and attempt to find alternative voice-recording tools in case audio-blogs are found to be highly unfeasible.

In the ESL instruction setting in Japanese high schools, audio-blogs can definitely be integrated. Most high schools in Japan have access to computer labs. This generation demonstrates a high level of digital literacy, so it would be plausible to assume that almost everyone can use free weblog services such as Blogger. It might be a little tricky to go through the initial setting including opening a Blogger and Evernote account and learning how to share recordings by hyperlinking Evernote links on Blogger, but students would probably be able to create their own blogs with adequate training because instructions can be given in their native language due to the homogenous population of learners. In addition, most high school students in

Japan now own their own mobile phones, which enables easy voice recording outside the classroom. It is also beneficial for high school students to experience using blogs and acquiring digital literacy because more and more Internet-based learning platforms such as *Moodle* and *Blackboard* are integrated in college courses.

Pedagogically, self-transcribing tasks of recorded monologues or dialogues may be beneficial for high school students. By recording themselves outside the class, students will enjoy more opportunities to practice speaking. In addition, grammatical accuracy of oral output after self-transcribing tasks was reported in research (Cooke, 2013; Lynch, 2007; Huang, 2008; Stillwell et al., 2009), and this is what is assessed in university entrance examinations. There may be a boost in motivation if certain grammatical forms aligned with instruction in other form-focused English courses are emphasized in the recordings because students may recognize a higher necessity for speaking practice and self-reflection. Monologue recordings or paired interactions may be able to alleviate peer-pressure. Sharing audio-files with other classmates can be very uncomfortable for some students, but at the same time, having their classmates serve as an audience for them can be rewarding and motivating. One way to ease the fear can be sharing recording links only within assigned pairs or small groups. By alleviating peer-pressure, teachers can assess students' speaking abilities more precisely by listening to their recordings, although it should be noted that students' performance might be influenced by the very presence of voice recording tools (i.e., observer's paradox).

Difficulties might arise in using audio-blogs in this setting. Although ownership of mobile phones among high school students is almost universal, regulations at some schools prohibit the use of mobile phones. In that case, it would be almost impossible for students to arrange and record interactions with a partner. In that case, asynchronous interactions using audio-blogs can be applied. It might not elicit speaking performances reflecting real-world use, but more importantly, as seen in all the studies regarding asynchronous voice-recorded interactions, there is indeed increase in student motivation. In their seminal article, Canale and Swain (1980) concluded, "It is important to remember that without motivation, learners who have an adequate level of communicative competence may not have the desire to perform well in the second language" (p. 38). This is to say, the correlation between motivation and students' performance in a second language is positive. Therefore, integration of asynchronous voice-recorded instructions may be able to positively influence students' language learning.

Another issue would be the feasibility of individualized feedback from instructors because an average class might comprise forty students in certain contexts. Lynch (2007) noted that implementing both self-transcribing activities and feedback from the teacher was feasible, yet this was the case with fewer than twenty students. Needless to say, individualized feedback from teachers is beneficial for students. If not, teachers can also address common mistakes using follow-up activities such as the ones that Huang (2008) and Mennim (2012) have incorporated. That would help teachers minimize the number of individualized feedback yet still raise the students' awareness of their mistakes. The drawback of using rehearsed speech may be insignificant if similar topics or forms are used in both pre-class recordings and in-class speaking practice because students tend to practice extensively before recordings. That would give them more opportunities to practice speaking outside the classroom and may provide students with a greater degree of confidence as well.

In adult EFL classes at conversation schools, different technologies and methods should be incorporated. Since many students are concerned with improving their pronunciation and getting individual corrective feedback, audio-journals with a note-taking application may be a

better fit than incorporation of audio-blogs. Adult EFL learners are less familiar with blogging and typically have lower digital literacy than high school students. In addition, many might not feel comfortable about sharing their audio recordings with others for fear of losing face. Integration of a note-taking application such as Evernote would require basic knowledge on how to use digital devices, so students would be able to utilize it for audio-recording and sharing purposes. They could practice and record multiple entries and send the links to the teacher. This way, individual feedback would be possible and feasible as well since EFL class sizes for adults are relatively smaller.

According to the literature, it is still unclear whether self-reflection of recordings directly contribute to the improvement of students' pronunciation; however, it is known to help students become more self-aware of their oral output and pronunciation. Evernote keeps audio-recording entries in chronological order, so students can easily archive and compare their very first recording to the most recent. If they find any improvement in their speech, they will become more motivated and build up confidence, which are some of the targeted outcomes of the integration of voice recording tools in this setting.

In adult ESL settings, proficiency levels should be fully considered. At intermediate and advanced levels, the same application of Blogger and Evernote may work, and the benefits of audio-blogs would be expected whether asynchronous voice-recorded interactions or self-assessing tasks are incorporated. However, at the beginning level, the integration of complicated audio-blogs may give learners discomfort. In order to not overload the students cognitively, applications such as Blogger and Evernote may be substituted with simpler applications. As an alternative, *Google Voice* (2009) may be easily used.

Although its free voice messaging services are limited to the United States, Google Voice allows students to record themselves for three minutes by simply dialing an assigned number that is linked to a Google account where the recordings are automatically stored and can be accessed by the account owner, which in this case would be the teacher. Using this application, the teacher can give simple task instructions, provide individualized feedback, and incorporating peer-to-peer recorded interactions becomes possible; however, the workload for the teacher would increase since s/he would need to download the recordings from the account as *mp3* audio files in order to make them available to the students. The recordings would have to be either uploaded onto a shared class website or directly sent to the students.

Finally, it should be noted that a lack of access to mobile phones, computers, and Internet access would disable the integration of voice recording tools mentioned above. Therefore, teachers should carefully examine available resources before incorporating these methods.

In this paper, the possibility of using voice recording tools in language instruction was investigated, and suggestions in a couple of settings were discussed. The integration of technologies such as audio-blogs and awareness raising tasks could be useful for promoting students' oral output outside the classroom as well as awareness of their performance and strengthening their sense of ownership over their own learning. However, before committing to one particular method or technology, teachers should first consider the various aspects of language instruction mentioned above. I chose the integration of audio-blogs with Blogger and Evernote in an attempt to meet personal instructional needs in my current teaching situations, but there are also other free weblog services and note-taking applications as well as voice recording software available, and new technologies continuously emerge. In order to avoid technological issues in implementing any task, teachers should also explore various tools by signing up for different services and testing out the features to choose applications they are comfortable with

and that would best match with instructional needs. Moreover, teachers should keep abreast of the rapid development of technologies that may assist in language instruction. Further research will be needed to investigate how to most effectively utilize voice recording tools in and outside the classroom in order to ultimately enhance the learner's oral output.

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