Audio-Recorded Speaking Assignments and Feedback via Moodle: Teacher and Student Perceptions

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Abstract

The author, an English teacher in Japan, used Moodle to let students in one of his courses submit audio-recorded speaking assignments on topics they had discussed in class to give them an opportunity to practice speaking outside of class. Through Moodle, he also provided his students with audio-recorded feedback, which seemed the most effective way to address pronunciation, stress, and intonation problems but could also convey information about grammatical, lexical, and higher-order issues. This study aimed at ascertaining what students thought about assignments and feedback of this type and supplementing it with the author's impression. To gauge students' opinions, a questionnaire was administered at the end of the course. The results of the questionnaire showed that the great majority of students thought the assignments had helped improve their speaking skills and appreciated the audio feedback. The author found that the assignments had worked well but should be even more tightly integrated with in-class activities, that audio feedback can address both lower- and higher-order issues effectively but should contain—or be complemented by—more specific information about how grades are assigned, and that providing this kind of feedback was feasible for a class of 21 but may not be for a larger class.

Keywords: audio feedback, CALL, EFL, Moodle, speaking skills

Introduction

In EFL contexts, students have limited opportunities to speak English outside of class. Asking them to submit audio-recorded assignments would seem to be a way to provide them with much-needed practice. In the past, collecting this type of homework and providing feedback was often a slow and elaborate process because it had to rely on physical media such as audio cassettes. Today the proliferation of digital recording devices and the spread of Internet access have changed this. Recordings can easily be made and shared. However, for a teacher, keeping track of such recordings as well as of grades and feedback could become a problem, especially when detailed records must be kept, as is the case in most institutional teaching. In addition, concerns over students' privacy require the use of secure environments. This is where learning management systems (LMS) such as Moodle can be of real help. They provide a password-protected website where all assignments, grades, feedback, and other communication with students can be stored in an organized way.[1]

[1] Moodle differs from other LMSs in that it was designed to facilitate a social constructivist pedagogy, although whether this happens depends on the teaching context and the way it is used (see, for example, Finnegan, 2018).

The author, an English teacher in Japan, had initially used Moodle to distribute teacher-created video presentations, allow students to share recordings made on portable audio recorders, and facilitate the peer assessment of students' presentations (Mazzarelli, 2014, pp. 44-48; Mazzarelli, 2015). More recently, the evolution of smartphones and the increased availability of Wi-Fi on university campuses and in Japan in general, as well as improvements in Moodle functionality, encouraged him to experiment with making a more sustained use of recorded assignments to give his students opportunities to practice speaking outside of class. In particular, he became interested in using audio recording assignments to improve students' spoken-production skills. According to the Common European Framework of Reference for Languages (CEFR), these are the skills necessary to carry out those activities in which "the language user produces an oral text which is received by an audience of one or more listeners" (Council of Europe, 2001, p. 58). Examples of such activities include describing an experience, putting a case in a debate, delivering a public announcement, and addressing an audience. Many activities can be grouped under these categories. They may involve reading aloud, speaking from notes, or speaking spontaneously (Council of Europe, 2001, p. 58). For example, depending on the proficiency level of the learner, addressing an audience may entail reading "a very short, rehearsed statement," giving "a prepared straightforward presentation on a familiar topic," giving "a clear, systematically developed presentation with highlighting of significant points, and relevant supporting detail," or presenting "a complex topic confidently and articulately to an audience unfamiliar with it" (Council of Europe, 2001, p. 60). Spoken-production skills are distinct from spoken-interactions skills, which the CEFR defines as those in which "the language user acts alternately as speaker and listener with one or more interlocutors so as to construct conjointly, through the negotiation of meaning following the co-operative principle, conversational discourse" (Council of Europe, 2001, p. 73). If there is not enough time in class to practice both types of speaking skills, the author thinks that a solution may be to use asynchronous communication like that afforded by audio recording to practice spoken-production skills and use class time for spoken-interaction practice.

Moreover, the author came to feel that written feedback was inadequate to deal with pronunciation, stress, and intonation issues and that audio feedback would not only be more suited to address those but may also increase student motivation.

The importance of feedback is widely recognized in education studies. Hattie (2009), by synthesizing meta-analyses of studies on student achievement, found that feedback was among the most powerful influences on it. He specifically mentioned "video or audio feedback" among the most effective types (Hattie, 2009, Chapter 9).

Research suggests that audio feedback is well received by students of various disciplines, including languages, who in many cases believe it to be more effective than text-based feedback (Ice et al., 2007, p. 13; Lunt & Curran, 2010, p. 764; Lyon, 2016, p. 55; Martini & DiBattista, 2014, pp. 3-4; McGregor et al., 2011, p. 55). At the same time, there is a debate over whether providing audio feedback is an efficient use of a teacher's time. According to some studies, audio feedback is more efficient than written feedback (Ice et al., 2007, p. 19; Lunt & Curran 2010, p. 761; McGregor et al., 2011, p. 58), while others found that it takes longer to produce (King et al., 2008, p. 157). Voelkel and Mello (2014)

concluded that it is more time consuming but, because it is more substantial and of a higher quality, it may well be more efficient (pp. 28-29). Lyon (2016), who used audio feedback for ESL writing assignments, found that it took him more time to complete than written feedback and that it was more suited to higher-order issues than to sentence-level corrections, which he continued to address by marking students' papers (pp. 56, 63). Interestingly, according to Cavanaugh (2020), who also teaches writing but not in an ESL or EFL context, studies show that for grammatical and mechanical errors in their written work students tend to prefer written feedback. However, this is because they often find it difficult to locate the errors mentioned in audio feedback. In his experience, if teachers read aloud the sentences they are commenting on, audio feedback is the more effective choice for grammatical and mechanical errors as well. In particular, Cavanaugh believes that when there are multiple errors in one sentence, audio feedback is easier for students to understand and more satisfactory for teachers to produce than written feedback.

When assessing speaking assignments, issues such as pronunciation, stress, and intonation cannot be effectively addressed in writing, even if the teacher transcribes what students say. Therefore, a comparison of audio feedback with written feedback could only apply to grammatical, lexical, and higher-order issues, and in the absence of a script or transcript to mark, producing such written feedback would be excessively time consuming. Thus, unlike others, the present study was not undertaken to compare perceptions of the two feedback types (Cavanaugh and Song, 2014) or find objective evidence to ascertain whether written or audio feedback produces better learning outcomes (McGregor et al., 2011, pp. 48-49; Voelkel & Mello, 2014, p. 25). Instead, the author only wished to determine whether audio feedback could address both lower- and higher-order issues in a manner that was satisfactory for his students and not excessively burdensome for him to provide. Therefore, he decided to integrate audio-recorded assignments and feedback into one of his courses and study the results. [2] Teachers had been combining audio-recorded planned-discourse assignments and feedback since the age of audio cassettes (Allan, 1991; Dantas-Whitney, 2002; Ho, 2003), later replaced by audio blogs (Hsu et al., 2008). However, there remained concerns that these activities could create an excessive burden for teachers (Aoki, 2014, p. 134) with some researchers recommending that classes using audio blogs should not have more than 10 students (Hsu et al., 2008, p. 194).

This article first details the context in which the assignments were used. Next, it explains what considerations led to the decision to use file uploads for students' submissions and recordings embedded in a text box for teacher's feedback. Then the article describes the directions given to students, the assessment method, and the characteristics of the feedback that was provided. After that, it summarizes and discusses the results of a questionnaire that was administered to students at the end of the course. Finally, the author's conclusions—based both on the results of the questionnaire and on his experience as a teacher—are reported.

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[22] This is a study of perceptions, so it does not include any objective assessment of students' progress. In any case, it was thought that it would be difficult to show significant improvement in just one semester.

The Context

The English course in which this study was conducted was taught to English majors at a women's university in Japan. Two of the twenty-one students in the class were in their first year at the university, nine in their second year, nine in their third year, and one in her fourth year. Their estimated English ability varied from high intermediate to advanced.

The topic of the course was Sustainable Development Goals, and the English skills it focused on were reading and speaking. It was hoped that it would help students hone their skills so that they would be more confident when they took part in academic discussions and gave presentations on academic topics.

Textbook readings, often supplemented by teacher explanations, provided the basis for group discussions that took place in class. These discussions were meant both to allow students to share ideas with their classmates and to improve their spoken-interaction skills. As is standard in Japan, the course met for ninety minutes once a week for fifteen weeks. It was mostly taught face-to-face although four classes—the initial one as well as the last three—had to be held on Zoom because of university-wide administrative decisions adopted to prevent the spread of COVID-19 infections. Homework was always given through Moodle. As homework, on nine different occasions, students were asked to record their personal reflections on the topics that had been discussed in class. These assignments were meant to allow students to reflect deeply on such topics and to improve their spoken-production skills. Links to online materials containing more in-depth information about such topics were provided via Moodle. To aid their reflection, students were encouraged, but not required, to consult these materials or conduct their own research. Basing one's recording only on what had been discussed in class was also acceptable. This was done to accommodate the range of abilities found in the class. The syllabus indicated that recorded assignments were worth one-fourth of the final grade.

Planning How to Use Moodle

The first factor that was considered when deciding how to use Moodle was that many students were likely to access the website from smartphones. Some readers based outside Japan may find this concern with how submissions could be made from mobile phones to be excessive, as students in their countries may access the Internet from their computers or tablets. However, the situation in Japan is different. For example, Gobel and Kano (2014, as cited in Cote & Milliner, 2017) found that Japanese first-year university students were much more comfortable using mobile devices than computers and recommended that teachers make more use of the former (p. 189). Cote and Milliner (2017), in another study of Japanese freshman students, found that only 19 out of 112 stated they could record and edit sounds and only 7% knew what a WAV file is (pp. 193-194). In the latter study, all students were at least reported to own a computer. However, in his experience before teaching the course described in this article, the author had found that his humanities students all owned smartphones but often did not own or even have access to a computer apart from those in the well-equipped campus labs. Although there was uncertainty as to how the COVID-19 pandemic might be changing the situation, the impact did not seem dramatic as the number of students who participated in Zoom classes from their smartphones was high. On a smartphone, Moodle is

best experienced through the Moodle App, which works on both iOS and Android phones and which all students had installed and used in a variety of other courses.

There are two ways in which students can submit audio assignments in Moodle, depending on the way a teacher sets up the assignments: uploading a previously recorded file or recording directly in a web browser by taking advantage of RecordRTC, a standard feature of Moodle's Atto text editor. The second method does not work in the Moodle App. On the other hand, when file uploads are used, the Moodle App provides a convenient interface that allows students to make, preview, and upload recordings with a few screen taps. Because the majority of students were expected to submit from their smartphones, file-upload assignments were chosen. Students who preferred to submit their assignments from a web browser, most likely on a computer, could upload files they had previously created with any recording software installed on their device. As a result, the files would be in a variety of formats, depending on whether the recording was made on an iOS device, an Android device, or a computer, but this was not expected to be a problem for the author because on his computer he had installed the VLC media player, a free program that plays most formats.[3]

Audio feedback can also be delivered by uploading prerecorded files or by recording directly in the browser. However, if file uploads had been used, file compatibility could have become an issue for students, who would have had to download the files and then open them with software installed on their devices. For this reason, it was decided to use RecordRTC to embed feedback recordings directly into the text area where feedback comments were normally typed. Unfortunately, the Moodle App did not support the playback of RecordRTC files, so to listen to feedback, students were instructed to access the site from a browser, which could of course be their smartphone browser.[4] Although the Moodle App makes it easier to navigate a Moodle site on a smartphone, listening to feedback was a simple operation that could be easily performed even in a mobile browser.

RecordRTC also allowed the author to record feedback more efficiently because recording took place directly in his computer browser. It was not necessary to record the files in a separate application and then upload them to Moodle. The author had not taken advantage of this function before because the open-source technology it uses and the audio format in which it records, Ogg Vorbis (OGG), are not fully supported by all browsers and mobile operating systems (Mangiatordi et al., 2019). In particular, these compatibility issues affect iOS devices and the Safari and Edge browsers. However, he learned that a plugin, the HTML5 Audio/Video to MP4 Filter, had been developed to address this issue and had it installed on the university's Moodle 3.9 server two weeks before the beginning of the course.[5]

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[3] At the time, the Moodle App produced audio files in WAV format on iOS devices, while on Android devices the format varied. The situation has just changed with the release of version 4.1.1 of the app, which features in-app recording and produces MP3 audio files on both iOS and Android devices.

[4] The playback of RecordRTC content is now supported in version 4.1.1 of the app.

[5] This filter is not necessary with Moodle versions beginning from 3.10. 8 and 3.11.4 because a patch implementing a different solution (Nguyen, 2021) was integrated into the code.

This filter, working in conjunction with the FFMPEG software that had been installed along with it, automatically converted Ogg Vorbis audio files into M4A files, which are widely supported. Testing confirmed that audio recordings made by the author on his computer could be played on his iPhone and thus were likely to work on his students' iOS devices as well. Playing the files just required tapping a button on the screen.

It may be asked why, if RecordRTC was good enough for feedback, it was not adopted for recording student submissions as well. The reason was that it was unknown how reliably it would work when recording in a variety of browsers, especially on mobile devices, while the Moodle App's recording function had already been used without problems in other courses.

Directions Given to Students

At the beginning of the course, clear instructions were given on how to submit through the Moodle App. A PowerPoint presentation was shown in class with annotated screenshots from the author's iPhone. This was also converted into a PDF document that was uploaded to the Moodle course page.[6] Students using their smartphones to record their assignments were advised not to submit them when a Wi-Fi connection was unavailable, as doing so may result in high communication charges. Handouts on how to record from computers had been prepared, but no one requested them. In fact, no student required any assistance at any point during the course. It must be acknowledged that during the previous semester, nine students had already had experience with submitting audio recordings in another course taught by the author in which they had recorded audio journals about their experiences listening to recommended online materials, although in that case feedback had consisted of brief written comments.[7]

Recordings were expected to be at least one minute long. Students were informed that technically they may not be able to upload anything longer than 10 minutes, but that there was no need to speak that long. They were also told that the most important assessment factors would be fluency, clarity of exposition, and depth of thought. Grammatical issues would affect the grade only if they impeded comprehension but would be corrected even in some other cases to help them achieve a higher level of accuracy. Students were also reminded that they should try to speak naturally, although they could have notes as it is common practice in many occasions in which planned discourse is used.

Prompts for assignments were announced in class as well as made available on Moodle. They were deliberately general to allow students to interpret the topic in any way they liked. Here is an example: "Please record your thoughts about affordable and clean energy after you studied Chapter 4." Students were expected to submit an assignment even if they had been absent from the class in which the topic had been discussed. In that case, they were supposed to study the textbook before submitting.

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[6] An Android version could not be prepared as the author did not have access to an Android device, but this did not cause any problems.

[7] For more information on these listening journals, in their original written form, see Mazzarelli (2018).

No instruction on how to plan and organize a speech was given during the course because all students had also been instructed in how to give presentations in other courses and had taken or were taking writing courses that taught organization.

Assessment and Feedback

A total of 184 recordings were submitted, which corresponded to a 97.3% submission rate. Together, they amounted to 7 hr 47 min 40 s. The average length of a recording was two and a half minutes, but some were longer, up to eight minutes in a few cases. In the author's experience, these results may only in part be explained by the weight of the assignments towards the final grade and are likely to indicate genuine interest in the activity.

The submissions were holistically graded on a 0 to 5 scale in half-point increments. As had been explained to the students, the factors that were given the most weight in the assessment were fluency, clarity, and depth of thought. The grade was not mentioned in the audio feedback but typed into Moodle, which displayed it to the student.

Considering that the purpose of the activity was to encourage students to speak, care was taken not to overwhelm them with an excessive amount of feedback. This approach seems to be supported by research indicating that too much feedback may demotivate students through cognitive overload or create teacher dependency (Lipsch-Wijnen & Dirx, 2022, section 2). Controlling the amount of feedback also had the effect of making the recording process more manageable.

Feedback always tried to be constructive, mentioning good points as well as points that could be improved. A typical recording would begin with praise for the merits of the recording and end on a positive note, reminding the student of what she had done well. Correct pronunciation, grammar, and vocabulary were demonstrated by saying words such as "It would be better/clearer to say" or "You should say," and then repeating what the student had said with the error corrected. Sometimes short grammatical or lexical explanations were included, but the words "error" and "mistake" were avoided. As research is inconclusive over which correction techniques are more effective for speaking (Kerr, 2007, p. 7), a mix of reformulations and reformulations supplemented by explanations was used. Reformulations alone were generally used when it was felt that the student would easily recognize why the expression was incorrect, while explanations were added when it was thought possible that she would not.

It was felt that prompt feedback would be important because students would still remember what they had said and to encourage them to continue submitting at a good pace. Initially, there had been a plan to record feedback shortly after each deadline had passed, and time was set aside for that. However, unforeseeable circumstances required the author to take on an additional course, and thus he started evaluating assignments as soon as he could, so that early assignments were often assessed before their deadline and late assignments before the next deadline. Although assessing all submissions related to the same assignment at the same time was not possible, the author did not feel that it prevented him from rating consistently, and it probably made the task less tiring compared to making all the recordings in a single session. Unfortunately, it also made it impossible to keep an exact record of how much time was spent assessing the recordings and providing feedback, so only an estimate

can be provided along with an account of how the process was managed.

There were 161 feedback recordings, for a total recording time of 2 hr 54 min 27 s. The average length of a recording was 1 min 7 s. Twenty-three assignments were submitted either very late or during a grace period at the end of the course and, per class policy, received no audio feedback but only a grade and a very brief written comment.

To save time when listening to a submission, the playhead was often taken back to a key point that needed to be replayed, so that it was not necessary to replay the whole submission. Efficient notes were taken using only abbreviations and key words to aid the memory during the recording of feedback. Recording sometimes required more than one attempt to achieve the desired quality as it was necessary to ensure that it would be easy to understand for students and it was felt that it may be taken as a model.

As for the time it took to listen to the submissions, assess them, and record feedback, the limited available data—based on Moodle logs of sessions when different submissions were graded one after the other—show that it varied considerably. For a three-minute submission, it could vary from six to thirteen minutes, for example. In practice, the author estimates that during weeks in which assignments were due, he spent two to three hours on them.

Questionnaire Results

A questionnaire approved by the Research Ethics Committee of the university was administered during the last class. The questionnaire was written in English, and students were asked to write their answers in English. However, before they were given the choice of answering the questionnaire, they were provided with written explanations in Japanese clearly stating the purpose of the study as well as the fact that participation was voluntary and that responses were submitted anonymously. This information was also repeated in English at the top of the questionnaire. Because the class was held online, the questionnaire was administered through Moodle's feedback module in anonymous response mode. Twenty students answered it.

The first question was "Did the audio-recorded assignments help you to improve your speaking skills?" Answers were as follows:

Not at all	0	0%
To a small degree	2	10%
To a moderate degree	4	20%
To a considerable degree	6	30%
To a great degree	8	40%

Here even if the two "To a small degree" answers are taken as polite negatives, and the four "To a moderate degree" answers as lukewarm endorsements, it is notable that 70% of students felt they had benefited from the assignments in a significant way.

The second question asked students to explain in writing their reason(s) for their answer to the previous question. Fourteen students answered it. Three appreciated the fact that the assignments had been an opportunity to speak English. Two stated that doing the assignment

had increased their confidence, one saying that doing it alone in her room and not having to care about an audience had allowed her to speak freely. Three mentioned benefits to pronunciation, three to vocabulary, one to vocabulary and pronunciation. Finally, two talked about improved speaking skills in general. Interestingly, two of the students who cited improved vocabulary as a benefit of the assignments connected this to having written their scripts: one believed the assignments had also improved her writing skills and another stated that by saying aloud what she had written she had really learned new words and phrases.

The third question was "Was it difficult to prepare your audio-recorded assignments?" Answers showed a considerable individual variation:

Not at all	0	0%
To a small degree	4	20%
To a moderate degree	9	45%
To a considerable degree	6	30%
To a great degree	1	5%

The fourth question asked students to explain in writing their reason(s) for their answer to the previous question. Seventeen students answered it. The student who had answered "To a great degree" unfortunately was not among them. The difficulties, of whatever entity, that were mentioned were various, with some answers citing more than one. The only difficulty that appeared in multiple answers was difficulty in finding information about the topic, which was cited by three students. The others were difficulty in summarizing the information found through research, lack of knowledge of global issues, finding some of the topics too difficult, being initially confused about what to talk about, wondering if one's opinion made sense, difficulty in summarizing one's thoughts in English, difficulty in translating what one wants to say into English, difficulty in speaking on the spot, needing to speak loudly and clearly, needing to record oneself many times because of a noisy environment, not having much time for recording, finding the assignments a little more time consuming than expected, time required to gather and summarize information, time required for thinking before speaking, time required to prepare for the recording, and finding the process of recording, saving, and submitting to be "a little confusing." Thus, the most common problems encountered were caused by lack of time and lack of familiarity with the subject or the procedures of research.

Interestingly, one student said that not having to write a script had made the assignment easier, while another remarked that, when recording at home rather than on campus, she had written a script and read it, so in those cases she had found the assignments not meaningful. It is true that there was no way to make sure students were not reading. Although reading a script well would not have made the assignment wholly meaningless as speaking practice because reading well is not easy, the feeling behind the remark is understandable. The student did not mention it, but this is a case in which video rather than audio recording might have made a difference by creating an incentive to use notes rather than a script. On the other hand, if one student reported being inconvenienced by a noisy environment, it is conceivable that more might have had difficulty in finding a place suitable for video recording.

The fifth question was "How much time did you spend, on average, to prepare and

record an assignment? Write hours and minutes." Seventeen students answered it. One student indicated two or three hours and another one hour and a half. Seven students stated one hour or about one hour, and the others shorter times down to 15 minutes in two cases. Thus, most students completed each assignment within an hour or so, which was what had been estimated in the syllabus. Still, there were two students for whom the assignments resulted more burdensome than expected. Looking at their answers to the previous question, one specifically said that it had taken time to gather and summarize information and the other seems to imply the same thing by mentioning that she had not known about the topics before taking the course. Therefore, the cause may have been their praiseworthy effort to research the issues deeply rather than linguistic difficulties.

The sixth question was "Was the teacher's feedback useful?" Answers were as follows:

Not at all	0	0%
To a small degree	1	5%
To a moderate degree	1	5%
To a considerable degree	6	30%
To a great degree	12	60%

The seventh question asked students to explain their reason(s) for their answer to the previous question. Fifteen students answered it. The reasons they provided showed that they had found advice on speaking speed, pronunciation, grammar, vocabulary, and content useful. One student said that by listening to the feedback she had improved her listening skills.

Five answers also specifically mentioned that the feedback had been motivating and helped students with subsequent assignments, expressions such as "was so helpful to do the next assignment," "was one of the things that motivated me to work on my assignments," and "made me want to do better recordings" were used. Here the important point is that students not only listened to the feedback but appear to have acted upon it.

The eighth question was "Do you have any suggestions to improve the audio-recorded assignments?" Thirteen students answered it, but eight of these said "No" or words to that effect. Therefore, there were five suggestions. One student stated that the "decided questions" were easy for her, so presumably she would have liked more challenging assignment prompts. However, prompts had been kept easy to accommodate a range of abilities, so unfortunately this suggestion seems difficult to act upon. Another student said, "If possible, it would be helpful if you could mention the structure of long sentences in English." Here, it is not clear exactly what instruction was being sought, but it seems likely that the student wished to know more about how to construct complex sentences by combining shorter ones. Perhaps she wished to ask this question privately rather than in class but hesitated to use email or Moodle messaging. Because of time constraints, it would have been difficult to cover the topic in class in this kind of course, but it could have been addressed in feedback. A further channel of communication should be established to encourage students to ask for guidance about issues they find challenging, perhaps by stating that is fine to ask questions at the end of a recording.

One student said that she would like all students to be given time to answer the assigned questions in class rather than through a recording because it is better if each student's opinion

is told “to the teacher directly.” This was the student who, in her answer to the fourth question, had explained that she had sometimes read from a script and that because of this she felt that on those occasions the assignment had not been meaningful.

Another student said that at the end of the course she would have liked to say her opinion in class “in front of my classmates” to be able to feel “the achievements through this recording assignment.” This comment was from the student who, in her answer to the second question, had said that she had gained confidence by doing the assignments alone in her room without having to care about an audience.

While the impossibility of setting aside time for substantial spoken-production activities in every class was the very reason why recorded practice was introduced, the author understands why some students wished they had been given the opportunity to speak to a live audience. Were he to teach the course again, he would give each student an opportunity to deliver a sustained monologue in front of her classmates by revising one of her recorded submissions at the end of the course. In fact, it was very gratifying to learn that a student had found the assignments so useful to overcome her reluctance to speak in public as to desire to show her newly acquired skills in class.

Finally, there was a request for information to be provided about how “partial points” were given. With hindsight, more specific information about how grades were assigned should have been furnished. A rubric could have been used for this purpose. There had not been time to prepare one on this occasion, and it was thought that the observations contained in the feedback would be sufficient, but it was not so in all cases. This is an issue that will be addressed in the future. It may not be practical to convey this kind of information in the recordings, but Moodle allows teachers to create online rubrics and grade assignments with them. Also, if possible, the author would prefer to co-create the rubric with students as that worked well in past occasions (Mazzarelli, 2014, p. 47; Mazzarelli, 2015).

The ninth question was “Did the other activities in this class (except the audio-recorded assignments) help you to improve your English speaking skills?” Answers were as follows:

Not at all	0	0%
To a small degree	0	0%
To a moderate degree	3	15%
To a considerable degree	9	45%
To a great degree	8	40%

The tenth question asked students to explain in writing their reason(s) for their answer to the previous question. Eighteen students answered it. Sixteen mentioned that they had appreciated the group discussions that had been a feature of all classes. A representative comment was “In a group, I could polish my speaking skill. I came not to hesitate to talk!” Of the remaining two answers, one said that the quality of discussion had varied depending on the composition of groups (which was changed every time), while the other seemed unrelated to the question.

These answers indicate that the discussions were key to the success of the course. In the author’s view, the audio-recorded assignments would not have succeeded if they had been

used without this in-class activity, which served both as a preparation for them and as an opportunity to practice spoken-interaction skills.

The eleventh question was "What do you think of the textbook? Seventeen students answered it. One said that it was too easy and two that it was difficult. All the other answers praised it. A representative comment was, "It is one of the best textbooks I've ever used because I could deepen my understanding of global issues while improving my English skills." Thus, it can be inferred that the popularity of the textbook certainly contributed to the success of the class.

The twelfth question was "Do you have any other comments or suggestions to improve the class?" Fourteen students answered it. Of these, twelve wrote "No" or words to that effect. The remaining two answers were not about assignments or feedback but one about seating arrangements in class and the other about the need to encourage all students to participate equally in class discussions, so they are not taken up here.

The thirteenth question was "Which of these devices did you use to record your assignments?" The choices were a "Mobile phone," "Your own computer," "University computer," and "Other." All students answered it. They could choose multiple answers. If they did that, they were supposed to answer the fourteenth question, which was "If you used more than one type of device, approximately how much of the time did you use each? (Write percentages)." By combining the answers to both questions it emerges that one student used her computer 70% of the time and her mobile phone for the remaining 30%, another used her phone 60% of the time and her own computer for the remaining 40%, yet another used her phone 60% of the time and university computers for the remaining 40%, and sixteen used exclusively their mobile phones. One student had answered the thirteenth question as if she only used her mobile phone, but then she wrote "30%" as her answer to the fourteenth. This may mean that she used something else besides her phone 30% of the time, but the answer was unclear.

The fifteenth question was "Where did you do your recording?" The choices were "At home," "On Campus," "While traveling," and "Other." All students answered it. They could choose multiple answers. If they did that, they were supposed to answer the sixteenth question, which was "If you did your recording in more than one place, how much of the time did you do it in each place? (Write percentages)." By combining the answers to these two questions, it can be understood that fifteen students did the homework exclusively at home, one five times at home and four times on campus, one at home and on campus with no information on frequency, one at home and just once while traveling, and one at home and at another unspecified location. A student who had chosen only "At home" then wrote "50%," so presumably she also used another location half of the time.

Student answers to these two last questions show that they overwhelmingly elected to use their smartphones rather than computers to submit their assignments. Numerous computers were available on campus labs, but they were not much used. Even at home, very few used a computer. This confirmed that the care taken to accommodate smartphone users was justified.

On the whole, the information provided by students through the questionnaire was very useful to assess the impact of assignments and teacher's feedback. Their suggestions were

valuable for the author to reflect on how to improve these activities in future courses.

Conclusion

The use of recorded assignments was perceived as beneficial by the great majority of students, who also evaluated the recorded feedback favorably. The questionnaire showed that other features of the course, such as in-class discussions and the topics covered in the textbook were also appreciated, so these other elements are likely to have contributed to the success of the audio assignments. In fact, assignments should have been even more tightly integrated with classroom activities by having each student say her opinion about one of the nine assigned topics in front of her classmates. Not having to worry about an audience certainly helped some, but even in those cases, once students have had time to build up confidence, they should be given the opportunity to speak to their peers as well as the teacher.

Audio recording worked well, but it would be worth investigating what could be achieved with video recording.[8] While the concern that some may also have difficulty finding a suitable location to video record their assignments is not unfounded, this drawback must be balanced against the fact that video would allow a teacher to assess nonverbal aspects of communication and may better motivate students to speak without reading from a script.

As expected, audio feedback was convenient for correcting pronunciation errors, but it was also found easy to use it to correct grammatical and vocabulary errors as well as to give higher-level advice. However, this was partly because it had been decided that not all errors would need to be corrected and partly because students did not actually make many errors. In addition, it was found that some students may prefer to receive more specific information about how their submissions are graded than could be provided this time. One way to address this issue would be to use a rubric.

For the author, teaching this course was a satisfactory experience. Students practiced speaking much more extensively—and gained a much deeper understanding of the Sustainable Development Goals—than would have been possible without audio-recorded assignments.

Listening to the assignments of 21 students and providing feedback in a timely and expeditious manner did not prove excessively burdensome. Although this result was encouraging, more experience would be necessary to determine to what extent it may be generalized. Moreover, what constitutes a reasonable use of time for one teacher may not be so for another. However, it seems safe to say that recorded assignments in the form that was presented in this article would be difficult to recommend for larger classes.

In conclusion, it is felt that the audio-recorded assignments and feedback described in this paper were worthwhile as a way for students to practice their spoken-production skills and consolidate their understanding of course content. Moodle made the process of collecting assignments and providing feedback easily manageable, and the author intends to use it again

[8] Moodle can handle video as well. The large size of video files, however, may create technical problems unless the Moodle site is integrated with a streaming platform such as Kaltura, MEDIAL, Panopto, or Poodll.

for these purposes. In fact, he may use audio-recorded feedback when assessing in-class presentations. There rarely is time in class for thorough feedback, and the risk of embarrassing a student in front of classmates makes the class setting inappropriate for many kinds of comments, however positively phrased. The author has used written feedback provided via Moodle to overcome these obstacles, but audio-recorded feedback would be better to address pronunciation issues and could create more engagement.

References

Allan, D. (1991). Tape journals: bridging the gap between communication and correction. *ELT Journal, 45*(1), 61–66. https://doi.org/10.1093/elt/45.1.61

Aoki, S. (2014). Potential of voice recording tools in language instruction. *Studies in Applied Linguistics and TESOL, 14*(2), 128-141. https://doi.org/10.7916/salt.v14i2.1309

Cavanaugh, A. J. (2020, July 20). How audio feedback can help students understand grammatical and mechanical errors. *MLA Style Center*. https://style.mla.org/audio-feedback-grammar/

Cavanaugh, A. J., & Song, L. (2014). Audio feedback versus written feedback: Instructors' and students' perspectives. *MERLOT Journal of Online Learning and Teaching, 10*(1), 122-138. https://jolt.merlot.org/vol10no1/cavanaugh_0314.pdf

Cote, T. J, & Milliner, B. (2017). Preparing Japanese students' digital literacy for study abroad: Is more training needed? *JALTCALL Journal, 13*(3), 187-197. https://www.castledown.com/journals/jaltcall/article/?reference=j218

Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment.* Cambridge University Press.

Dantas-Whitney, M. (2002). Critical reflection in the second language classroom through audiotaped journals. *System, 30*(4), 534-555. https://www.researchgate.net/publication/222547371_Critical_reflection_in_the_second_language_classroom_through_audiotaped_journals

Finnegan, M. (2018). *Moodle and social constructivism: Is Moodle being used as constructed? A case study analysis of Moodle use in teaching and learning in the School of Business, GMIT* [Master's Thesis, Galway-Mayo Institute of Technology]. https://research.thea.ie/bitstream/handle/20.500.12065/2373/Final%20submission%20MF%20Thesis.pdf

Hattie, J. A. C. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* Routledge.

Ho, Y. (2003). Audiotaped dialogue journals: An alternative form of speaking practice. *ELT Journal, 57*(3), 269-277. https://doi.org/10.1093/elt/57.3.269

Hsu, H.-Y., Wang, S.-K., & Comac, L. (2008). Using audioblogs to assist English-language learning: An investigation into student perception. *Computer Assisted Language Learning, 21*(2), 181-198. https://doi.org/10.1080/09588220801943775

Ice, P., Curtis, R., Phillips, P., & Wells, J. (2007). Using asynchronous audio feedback to enhance teaching presence and students' sense of community. *Journal of Asynchronous Learning Networks, 11*(2), 3-25, ERIC. https://eric.ed.gov/?id=EJ842694

Kerr, P. (2017). *Giving feedback on speaking* [pdf]. Cambridge University Press.

https://www.cambridge.org/us/files/4515/7488/5712/CambridgePapersinELT_FeedbackOnSpeaking_2018_ONLINE.pdf

King, D., McGugan, S., & Bunyan, N. (2008). Does it make a difference? Replacing text with audio feedback. *Practice and Evidence of Scholarship of Teaching and Learning in Higher Education, 3*(2), 145-163. https://pestlhe.org/index.php/pestlhe/article/view/136/163

Lipsch-Wijnen, I., & Dirkx, K. (2022). A case study of the use of the Hattie and Timperley feedback model on written feedback in thesis examination in higher education. *Cogent Education, 9*(1). https://doi.org/10.1080/2331186X.2022.2082089

Lunt, T., & Currant, J. (2010). Are you listening please?' The advantages of electronic audio feedback compared to written feedback. *Assessment & Evaluation in Higher Education, 35*(7), 759-769. https://doi.org/10.1080/02602930902977772

Lyon, T. M. (2016). Using audio feedback to facilitate student revising. *Journal of Teaching Writing, 31*(2), 49-67. https://journals.iupui.edu/index.php/teachingwriting/article/view/21487/20719

Mangiatordi, A., Pagani, V., Pastori, G., Sarcinelli, A.S., & Menegola, L. (2019). Design for inclusion in a culturally and linguistically diverse Europe: Challenges in the development of a virtual learning environment. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.), *EDULEARN19 Proceedings: 11th International Conference on Education and New Learning Technologies* (pp. 7472-7481). IATED Academy. https://doi.org/10.21125/edulearn.2019.1788

Martini, T., & DiBattista, D. (2014). The transfer of learning associated with audio feedback on written work. *The Canadian Journal for the Scholarship of Teaching and Learning, 5*(1). https://doi.org/10.5206/cjsotl-rcacea.2014.1.8

Mazzarelli, S. (2014). A summary of a teacher's experiences with audio and video in Moodle. *The Kwassui Review, 57,* 35-48. http://id.nii.ac.jp/1693/00000127/

Mazzarelli, S. (2015). Using the European language portfolio and Moodle to enhance presentation skills. *The Kwassui Review, 58,* 105-122. http://id.nii.ac.jp/1693/00000120/

Mazzarelli, S. (2018). Listening journals: A valuable addition to listening courses. *Kwassui Bulletin: Faculty of Humanities, 61,* 23-36. http://id.nii.ac.jp/1693/00000141/

McGregor, G., Spiers, A., & Taylor, C. (2011). Exploratory evaluation of audio email technology in formative assessment feedback. *Research in Learning Technology, 19*(1), 39-59. https://doi.org/10.1080/09687769.2010.547930

Nguyen, H. (2021, September 3). *To describe more about the patch and the approach.* [Comment on the bug report *MDL-65943: RecordRTC content does not playback in iOS (multiple browsers)*]. Moodle. https://tracker.moodle.org/browse/MDL-65943

Voelkel, S., & Mello, L. V. (2014). Audio feedback–Better feedback? *Bioscience Education, 22* (1), 16-30. https://doi.org/10.11120/beej.2014.00022