



## JISC Final Report

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## **a) Acknowledgements**

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## **b) Report Summary**

### **○ Project Overview**

Giving feedback through audio means has become increasingly popular amongst assessors. Assessors are using a variety of audio feedback methods but which method is optimal? Are certain methods better suited to certain assessment types? Do different types of learners respond better to different methods? The aims and objectives of the current project were to answer these questions by comparing three methods of audio feedback and determine the optimal method from both an assessor and learner perspective: Audio Only (MP3 files), Audio Visual Asynchronous (embedded audio files in PDF documents), and Audio Visual Synchronous (screen capture from [www.jingproject.com](http://www.jingproject.com)). From both assessor and learner perspectives, the optimal method would have a positive impact on learning and be easy to use. Over the academic year 2009-2010, the Psychology Department at Aberystwyth University implemented these audio feedback methods across fourteen different assessments for Year 2 and Year 3 students who were divided into High and Low Performing Learners. Native language was also tracked so that non-native English speakers could be compared with native English speakers. All users evaluated the effectiveness of the methods via questionnaires, focus groups, and interviews. The type of audio feedback method one should choose depends on the type of assessment and the type of learner. Although no differences were found between native and non-native English speaking learners, differences in preference emerged for the High and Low Performing Learners. Assessors were divided in the method they preferred the most. Recommendations are made on how educators can best tailor feedback delivery.

### **○ Project Outputs**

The project outputs found on the project website

(<https://sites.google.com/site/audiofeedbackuk/home/downloads>) are:

- this report summarising the findings which will also be submitted to learning and technology journals
- a training manual on using the methods that we evaluated has been developed, including guidelines on choosing the best method for a particular assessment.
- the metrics for evaluating the effectiveness of the audio feedback methods (questionnaires, interviews, and focus groups) can also be found.

## **2.3 Impact and Benefits to the Community**

Integrating audio feedback into the assessments was positive overall for all involved. Most learners were pleased with the introduction of the methods and with a few exceptions, hoped that the assessors would continue using it. The assessors also enjoyed the process of giving the audio feedback more than in tradition writing, but the main drawback was the technical burden for all methods. Regardless of the audio feedback method, assessors were impeded by the tedious downloading and uploading of anonymous assignments resulting in resistance to adopting any of the methods on a

permanent basis. Despite the positive benefits of audio feedback to both learners and assessors, audio feedback will not work without staff support. JISC can take the results from this study to better understand how audio feedback works for a variety of users and possibly support future projects on finding an audio feedback method that staff will adopt. Results have been disseminated to a limited number of HE and FE institutions in UK and abroad through our dissemination process. Wider dissemination will continue which will positively impact more institutions who adopt the approach.

## **2.4 Main Lessons Learnt**

In evaluating three methods, assessment type and learner type were the key variables. The optimal type of audio feedback varies by assessment: Audio Only is good for posters and assessments that cannot be submitted electronically, Audio-Visual Asynchronous is best for reports and proposals, and Audio Visual Synchronous is good for essays and presentations. Learners preferred the Audio Visual Asynchronous method or the Audio Visual Synchronous methods more than the Audio Only method. High Performing Learners generally were more enthusiastic about audio feedback whereas Low Performing Learners generally preferred written feedback. They also differed in their preference for methods with High Performing Learners preferring Audio Visual Synchronous and Low Performing Learners preferring Audio-Visual Asynchronous. No differences were found between native and non-native English speakers. Assessors felt the administrative burden of the Audio Visual Asynchronous and Audio Visual Synchronous were both great but also felt that these methods produced high quality feedback useful for learners. Assessors were split in their preference between Audio Visual Asynchronous and Audio-Visual Synchronous. In choosing the type of audio feedback to use, assessors should match the audio feedback to the assessment and learner type.

## c) Main Body of Report

### 3.1 What did you do? (Methodology)

The Department of Psychology at Aberystwyth University implemented audio feedback for the 2009-2010 academic year. Audio feedback was delivered to students in Year Two and Year Three (n=33). Using previous grade history for them, learners were divided into high-performing (average marks of A's and B's, final n=13) and low-performing (average marks of C's and D's, final n=11). This division between high and low performing learners seems to accurately capture a division in not only performance in the course but also motivation and engagement. There were fourteen assessments, ranging from reports to essays to posters to wikis to Powerpoint presentations across six modules (Tab. 1). Five assessors started the project using three different methods of feedback but was reduced to three assessors due to two leaving the project. At the end of each term, users were invited to evaluate audio feedback. Learners participated in focus groups, interviews and questionnaires. Assessors participated in interviews in pairs and singly. Timing of each feedback was recorded as well as individual grades.

Course	Assessment	Method
<i>Year 2 Course</i>		
Brain and Behaviour	Essay	A-V Asynchronous
	Poster	Audio Only
	Presentation	Audio Only
Social Psychology	Research report	A-V Synchronous
	Wiki groups	A-V Synchronous
Research Methods	Research Report 1	A-V Asynchronous
	Research Report 2	A-V Synchronous
	Research Report 3	A-V Synchronous
<i>Year 3 Course</i>		
Research Project	Project proposal	A-V Asynchronous
	Poster Presentation	Audio Only
	Research Project	Audio Only
Cognitive Psychology	Presentation 1	A-V Synchronous
	Presentation 2	Audio Only
	Research Proposal	A-V Asynchronous

Table 1. Audio Feedback Method by Assessment Type, Course, and Year.

#### Audio Only

The audio-only method was used to give feedback for poster presentations and formal presentations. Assessors provided audio feedback using a digital voice recorder, converted the files to MP3 using a

freely available software called Switch, then shared the audio files with learners via Blackboard ensuring secure, private transfer. Learners then retrieved the audio file, listening to it using a compatible media player and speakers.

### **Audio-Visual Asynchronous**

This method was used to give feedback for project proposals, research reports and essays. Learners submitted assignments as PDF files electronically using the Grade Center via Blackboard. Assessors downloaded the files, and commented by inserting audio files into the documents at various points using Adobe Acrobat Professional 9.0. Assessors then uploaded the new documents on Blackboard. Learners retrieved the document and listened to the feedback using Adobe Reader and speakers.

### **Audio-Visual Synchronous**

This method was used to give feedback for formal presentations and research reports. Learners submitted assignments electronically using the Grade Center via Blackboard; for presentations, learners were recorded on video. Assessors used free software downloaded from jingproject.com and would take a screen capture which recorded both the audio as well as the screen activity whilst the assessor actively scrolled through the document. Jing imposes a maximum recording time limit of five minutes. A link generated by Jing was sent to the learners again via Blackboard who clicked the link to view the video. They listened and watched the feedback using an internet connection and speakers.

### **Implementation**

The project was planned after a review of the various audio feedback methods currently in use across higher education institutions. The project team met to discuss how to integrate the audio feedback into the curriculum and tasks were divided up amongst the group. After deciding on three audio feedback methods, assessments and staff members were assigned to methods such that each method was used by all staff members across a variety of students and assessment types. Training for the methods then commenced. The Project Director created the training manual for both assessors and learners. The learners were given instructions on how to appropriately name their files, convert them to PDF format, upload their submissions, and download the feedback. These training sessions were done in lectures and practicals where the learners had demonstrations and the documentation together. The assessors were trained in each of the audio feedback methods including getting comfortable with using the equipment and software involved. In addition, the assessors were asked to keep track of the time spent on the audio feedback and given guidance on how to streamline the process. They also learned how to download the assignments that the learners submitted and to upload their feedback at the end. These trainings were individual sessions and refreshers were given as needed.

Once everyone had been trained, the submission of assessments followed by return of feedback commenced. Although a few glitches were experienced, the project team monitored the situation carefully to ensure no disruption escalated out of proportion. These glitches included confusion over the file naming conventions by the learners and the electronic submission set-up by the assessors. Once the problems had been discovered, the project team clarified the steps with the affected persons and rectified the mistakes. This cycle continued along smoothly and at the semester break, learners and assessors were invited to take part in an interim evaluation. Online questionnaires, focus groups, and interviews were conducted with learners to gauge their response to the audio feedback in general and to each method specifically. The assessors participated in interviews in pairs and singly. Initial responses gathered from these evaluations were very positive with both learners and assessors enthusiastic to continue for the next semester. These initial findings were disseminated through a poster presentation at an audio feedback conference called "A Word in Your Ear" at Sheffield Hallam University on 18 December 2009.

The next term progressed similarly to the first semester although two members of staff withdrew from the project for personal reasons. The remaining three continued with audio feedback for the

assessments for the rest of the term and participated in interviews at the end of the academic year to evaluate the overall experience. The participating learners were again asked to give their reactions to the audio feedback methods by questionnaires and interviews. Overall results were analysed and disseminated through a presentation at the World Conference on Educational Multimedia, Hypermedia & Telecommunications in Toronto, Canada.

Further dissemination opportunities are forthcoming in the next few months. The Project Director will be leading three workshops on these results and the audio feedback methods evaluated at

- Pittsburgh Science of Learning on 15 October 2010
- Aberystwyth University on 22 October 2010
- University of Leeds on 13 December 2010

### **3.2 What did you learn?**

The overall impression of audio feedback confirmed what has been previously found. Assessors and learners found many benefits to audio feedback over the traditional written method. For example, with traditional feedback, learners would pick up their feedback on average 88% of the time, read most of it, and described it as “illegible”, “undetailed”, “short”, “impersonal” but still “helpful” whereas they described audio feedback as “detailed”, “helpful” and “personal”. Several learners also commented that they listened to the audio feedback repeatedly when preparing for their next piece of coursework until each point had been addressed in the coursework currently being worked on thus changing their view of feedback from summative to formative. Assessors also felt that the quality of the coursework was higher but were not able to specifically attribute this to the audio feedback due to many other variables affecting the quality. However, they did feel that through audio feedback, they were giving higher quality feedback than traditional written feedback. Although it may not have saved the assessors time in the short-term, audio feedback did become an enjoyable process. The results of the comparison between the three methods are summarised below.

#### **Audio Only**

**Learner Perspective:** Learners found this method very useful and on average, listened to 83% of the content. There is a slight preference for this method over written feedback. This method was the least challenging to use and those who preferred it called it “quick and simple”. Learners listened to feedback delivered by audio only in a variety of settings. A benefit that they particularly liked is that “It is all in one go rather than having to click on sound bites individually”.

**Assessor Perspective:** Assessors found this method very easy to use and portable, and on average, would record 6 minutes of feedback. This method was appropriate for posters and other non-electronic assessments. When giving feedback with this method, assessors found they were giving broader, less specific types of feedback. This method was the least preferred amongst the assessors despite its simplicity. One assessor mentions that “it was very straightforward”.

#### **Audio-Visual Asynchronous**

**Learner Perspective:** Learners found this the most useful method and on average, listened to 76% of the content. They preferred it for the specificity, detail, and the ability to self-pace whilst listening to comments. However, learners did find it challenging to be unable to stop the audio mid-comment, that there were “many clicks” and sometimes the feedback given was inconsistent. They remarked that this method was especially appropriate for reports that had a rigid structure and comments were divided into sections. This method was preferred most by Low Performing Learners and second most by High Performing Learners, and several reported that this method helped increase their mark for the next assignment significantly, some by as much as 20 points. One learner commented “It pinpoints exactly where they’re speaking about and it also offers the marker an opportunity to be more elaborate, express themselves better”.

**Assessor Perspective:** Assessors found this method straightforward to use and on average, would record 12 minutes of feedback. They preferred this method for formal written coursework (reports and proposals) and felt this method gave them the flexibility to elaborate with high-quality, detailed comments. However, there were several drawbacks to this method including the inability to estimate how many minutes of total feedback the assessor had given, very tedious downloading and uploading process, and the inflexibility of marking somewhere other than the assessor’s office. The assessors

felt they were spending more time giving feedback through this method because they could be more expansive. Half the assessors preferred this method most, and one noted “I liked it, but I took way too long.”

## Audio-Visual Synchronous

**Learner Perspective:** Learners found this method very useful and listened to 73% of content on average. Learners found this method helpful for feedback on formulating arguments in essays. This method was found to be best for essays and formal speeches/presentations. Preference for this method depended on the type of assessment but generally, they liked it about the same as the A-V Asynchronous method. However, learners complained that this type of feedback could only be retrieved with a good internet connection and the inability to save the file locally. High Performing Learners preferred this method most whereas Low Performing Learners preferred it the least of the three methods. In focus groups, the Learners (both High Performing and Low Performing) mentioned that they enjoyed seeing the assessor’s thought processes going through the coursework and felt “like you’re sitting next to them while they talk to you”.

**Assessor Perspective:** Assessors found this method easy to use and consistently used the maximum time limit of 5 minutes, although on occasion two files were created per assignment if more feedback was needed. This method was a compromise between the previous methods, where assessors can pinpoint specific aspects of the assignment but the imposed time limit forces focussed feedback so that “you can’t waffle in what you say”. Assessors said this format forced them to focus on important points whilst maintaining the ability to pinpoint specifics. There were some technical challenges with the amount of uploading time needed for each screen capture created or needing to re-record several times because of the time constraints. However, sending a link was easier than uploading files of the previous methods, and half the assessors favoured this method. One assessor noted that “It is more like a (one-sided) conversation.”

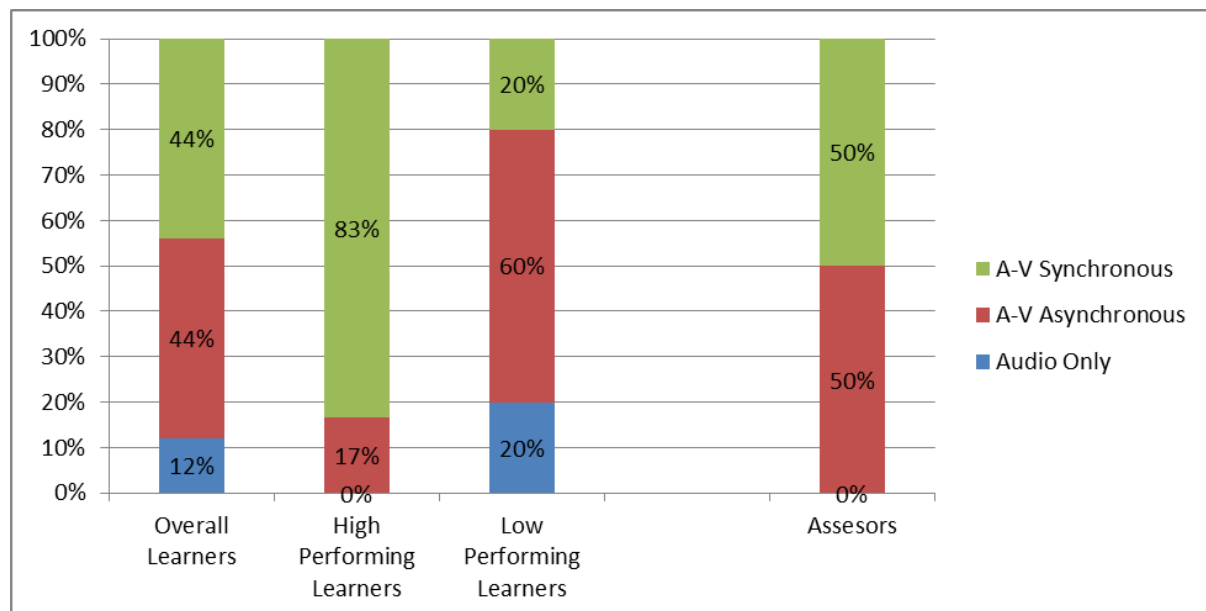


Figure 1. Distribution of Overall Preference for Audio Feedback Method Amongst Learners and Assessors.

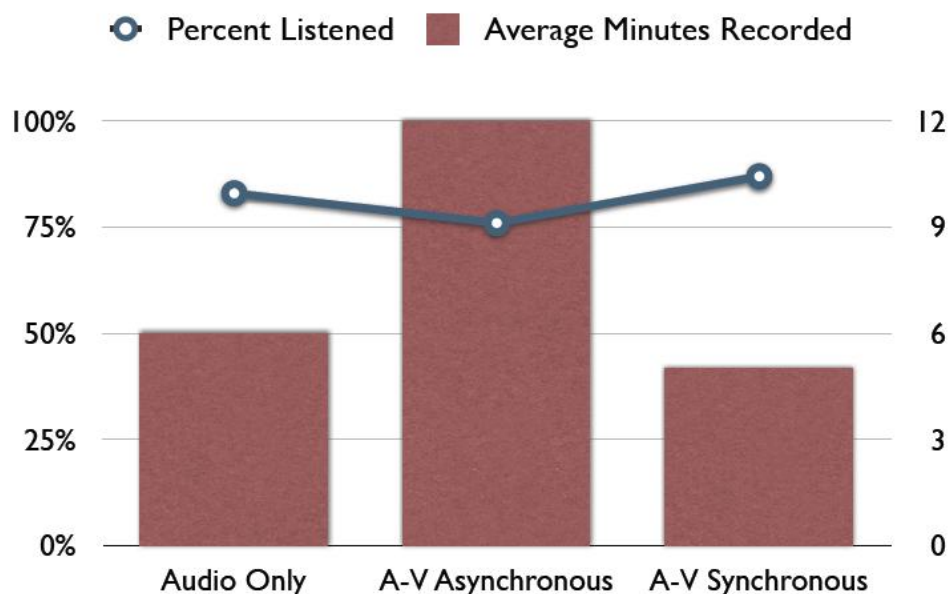


Figure 2. Percent of Feedback Listened to Superimposed on Average Length of Feedback.

### Differences by Learner Type

A motivating question for this project was how do different learners respond to audio feedback? Previous research has found that Low Performing Learners do not take feedback on board like High Performing Learners (Van Der Zee, 2009) and that listening and reading skills develop differently when learning in a non-native language (Herron, Morris, Secules, & Curtis, 1995). For this project, we looked at non-native English speakers compared with native English speakers as well as Low Performing Learners compared with High Performing Learners. Surprisingly, we did not find any differences amongst learners based on native language. Non-native English speakers showed the same patterns of preferences and responsiveness to the audio feedback methods as the native English speakers. Some international students commented that perhaps it was only because they had been here for at least a year and were used to the staff's accents that this was the case. Several of them expressed doubt that they would have been receptive to audio feedback as a new first-year student. Our sample excluded first-year students because of the inability to track past performance in the current study, but this notion may be one to investigate further. Evidence from other HEIs using audio feedback corroborates this idea that audio feedback in the first year does not work well (Rodway-Dyer and Dunne, 2009).

In comparing the High Performing and Low Performing Learners, certain differences in using the feedback became apparent. The Low Performing Learners consistently listened to the feedback much less than the High Performing Learners (Fig. 3). They had an overall aversion to audio feedback, regardless of the method, whereas the High Performing Learners thrived on all methods. Perhaps this aversion should not be a surprise because one of the characteristics (and benefit to some) is the personal nature of the feedback. When a Low Performing Learner has submitted a poor piece of coursework, it much easier to cope with impersonal written feedback rather than personal audio feedback where one might hear disappointment from the assessor.

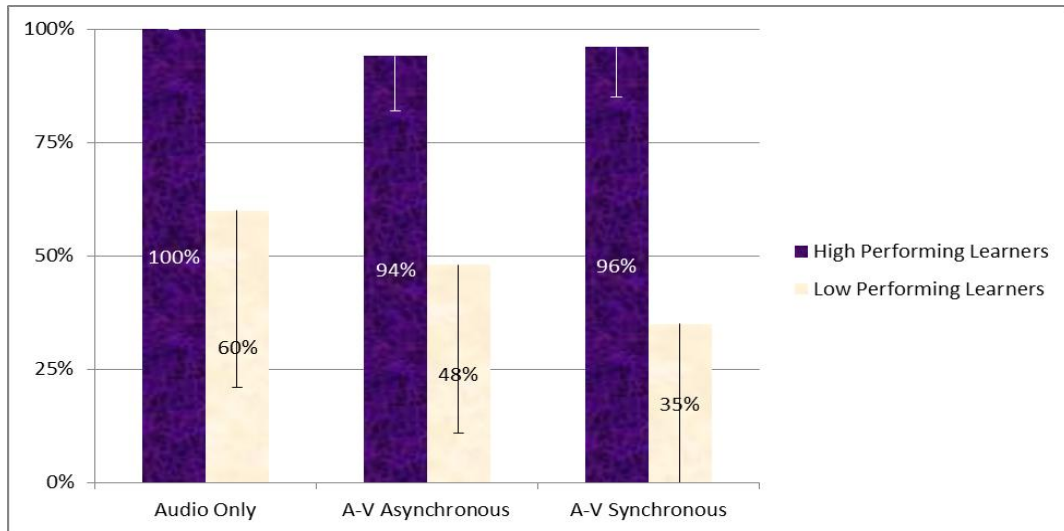


Figure 3. Percent of Feedback Listened to by Method and by Learner Type.

As for preference, the Low Performing Learners did not prefer any method better than traditional written feedback (Fig. 4), but amongst the three, preferred the Audio-Visual Asynchronous method and the Audio Only method about the same as traditional written feedback and the Audio-Visual Synchronous method less. The High Performing Learners showed a different pattern of preferences, preferring the Audio-Visual Synchronous method the most, the Audio Only method second, and the Audio-Visual Asynchronous method third. However, High Performing Learners preferred all methods over traditional written feedback. When asked simply to rank the three methods in terms of preference (Fig. 1), High Performing Learners overwhelmingly preferred the Audio-Visual Synchronous method whereas the Low Performing Learners preferred the Audio-Visual Asynchronous method. A similar pattern emerged in evaluating the usefulness of each method (Fig. 5). High Performing Learners found all audio feedback methods at least somewhat useful, with the Audio-Visual Synchronous method being the most useful. Low Performing Learners found all methods much less useful than their counterparts. The Low Performing Learners found the Audio-Visual Asynchronous method the most useful of the three methods but still only about somewhat useful. These differences are in line with previous research supporting the idea that High Performing Learners and Low Performing Learners respond to feedback quite differently.

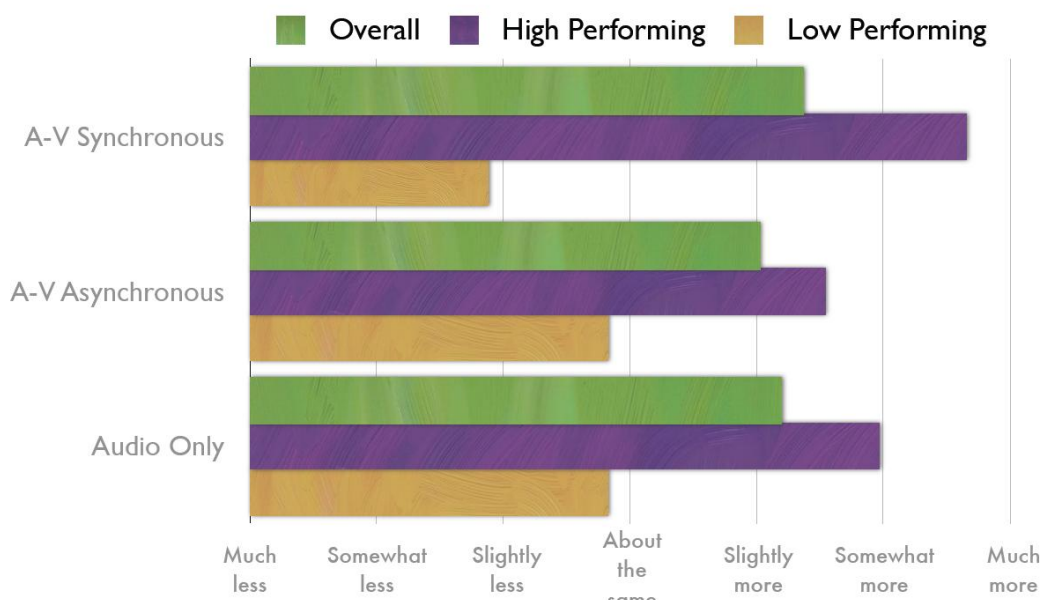


Figure 4. Preference of Audio Feedback Methods Compared to Written Feedback by Learner Performance.

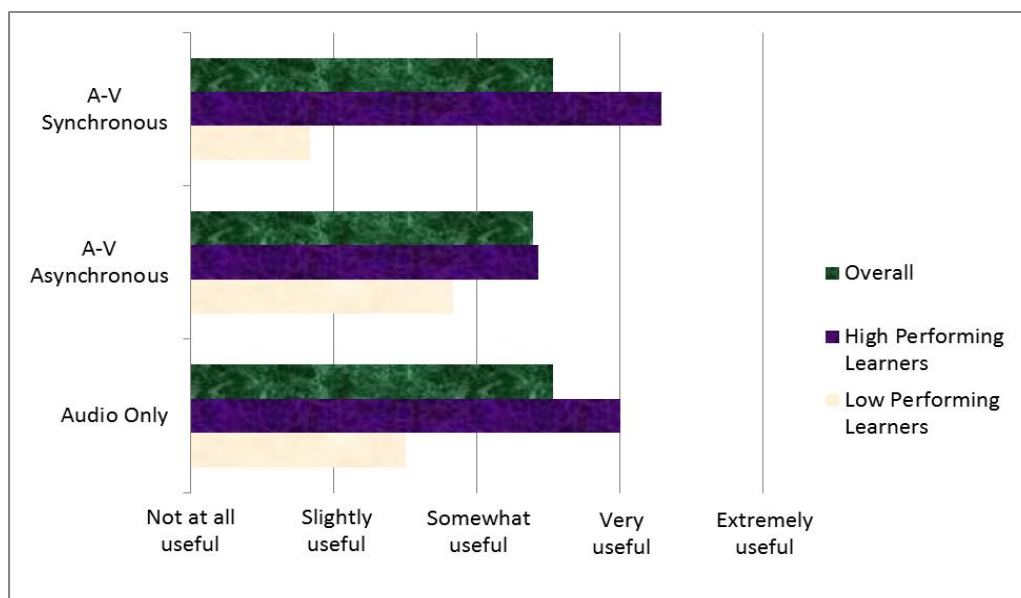


Figure 5. Usefulness of Each Method.

### 3.3 Impact

Integrating audio feedback into the assessments was positive overall for all involved. Most learners were pleased with the introduction of the audio feedback methods and with a few exceptions, hoped that the assessors would continue using it. Their attitude toward feedback has changed from a summative view to a formative view. The assessors also enjoyed the process of giving the audio feedback more than in tradition writing, but the main drawback was the technical burden for all methods. Regardless of the audio feedback method, assessors were impeded by the tedious downloading and uploading of anonymous assignments resulting in resistance to adopting any of the methods on a permanent basis. Despite the positive benefits of audio feedback to both learners and assessors, audio feedback will not work without staff support. JISC can take the results from this study to better understand how audio feedback works for a variety of users and possibly support future projects on finding an audio feedback method that staff will adopt. Results have been disseminated to a limited number of HE and FE institutions in UK and abroad through our dissemination process. Wider dissemination will continue which will positively impact more institutions who adopt the approach.

The project has provided an easy toolkit for educators to tailor their audio feedback delivery. Through dissemination of the results, feedback from several workshop attendees was positive and seemed to indicate adoption of the methods according to our recommendations. At Aberystwyth University alone, educators are beginning to adopt these methods in other departments. We hope further distribution of the results to the wider teaching community will translate into adoption of good audio feedback practices.

#### d) Conclusions & Recommendations

The optimal type of audio feedback varies by assessment: Audio Only is good for posters and assessments that cannot be submitted electronically, Audio-Visual Asynchronous is best for reports and proposals, and Audio Visual Synchronous is good for essays and presentations. These recommendations are based on a combination of pragmatics in matching the method to the assessment and the strengths of each method that emerged through assessor and learner comments.

Learners preferred the Audio Visual Asynchronous or Audio Visual Synchronous methods and the Audio Only method the least. High Performing Learners generally were more enthusiastic about audio feedback whereas Low Performing Learners generally preferred written feedback. They also differed in their preference for methods with High Performing Learners preferring Audio Visual Synchronous and Low Performing Learners preferring Audio-Visual Asynchronous. Assessors felt the administrative burden of the Audio Visual Asynchronous and Audio Visual Synchronous were both great but also felt that these methods produced high quality feedback useful for learners. Assessors were split in their preference between Audio Visual Asynchronous and Audio-Visual Synchronous. In choosing the type of audio feedback to use, assessors should match the audio feedback to the assessment and learner type.

We recommend that more educators use audio feedback with reference to our suggestions. We also recommend investigation into or development of a tool that would make audio feedback feasible and flexible for staff members who are currently resistant to using it because of the technological burden.

### e) Implications for the future

The methods we investigated in this project can be used broadly by educators as appropriate for their needs. Because we found that staff perceived all the audio feedback methods as tedious, the obvious next step would be to develop or find a solution that would work across platforms. Since our university and departmental policies stipulate that marking must be done anonymously, we need a way to access the coursework submitted, give the audio feedback, and return it without any identifying information from the student. Two possibilities have been given cursory inspections and more in-depth research needs to be made into them. [VoiceThread](#) has academic clients who use it for audio feedback purposes but does not integrate well into our course management system (Blackboard) nor has an easy way to maintain anonymity for students. [Wimba Voice](#) does integrate with Blackboard but reduces audio feedback to Audio Only done without anonymity as well. If there was an easy way to streamline the audio feedback project, uptake of it by staff members would increase greatly. Now that the project is over, the project outputs will be maintained on the project website for the foreseeable future. The project team has evaluated the usefulness of audio feedback and decided that each staff member would decide for him/herself on whether or not to use it with only 2 staff members out of 5 expressing interest in using audio feedback in the future. We will continually assess the landscape of audio feedback to see if new methods have been introduced that would encourage staff uptake and remain in contact with the network of audio feedback users in HE established from the various conferences and workshops attended.

### f) References

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## g) Appendixes (optional)

### Appendix A. Learner Audio Feedback Questionnaire

Please complete the following questionnaire about your audio feedback experience by ticking your answers.

#### Tradition written feedback

1. In thinking about traditional written feedback on your coursework (not exams), what percentage of the time would you collect your feedback? \_\_\_\_\_%
2. If you picked up your feedback, how much of the feedback would you read?

All of it	Most of it	Some of it	Only looked at the mark	None of it
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3. What 3 words would you use to describe traditional written feedback?

\_\_\_\_\_

**General questions about your audio feedback**

4. Did you feel the guidelines of assignment submission were clearly explained? Yes  
 No

If you said 'No', please comment on what could be improved.

5. Where did you listen to your audio feedback? Please tick all that applies.

- University computer
- Home computer
- Work computer
- Your MP3 player (such as iPod)
- Other (specify):

6. What 3 words would you use to describe audio feedback?

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**Receiving feedback by PDF**

For the next few questions, please think about the feedback for coursework that you have received by PDF, that is where you got your report or essay back with sound bytes inserted throughout it.

7. How useful did you find this particular method in receiving your feedback?

Not at all useful	Slightly useful	Somewhat useful	Very useful	Extremely useful
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8. What percentage of the whole feedback do you think you listened to? \_\_\_\_\_%

9. Compared to traditional written feedback, did you prefer this method more or less?

Much more	Somewhat more	Slightly more	About the same	Slightly less	Somewhat less	Much less
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10. How challenging did you find this method to use?

Not at all challenging	Slightly challenging	Somewhat challenging	Very challenging	Extremely challenging
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If you found it challenging, what were your difficulties?

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11. What are your suggestions for improving this method?

**Receiving feedback by Jing**

For the next few questions, please think about the feedback for coursework that you have received by Jing, that is where you got a link to a screen capture and watched a video of the feedback.

12. How useful did you find this particular method in receiving your feedback?

Not at all useful	Slightly useful	Somewhat useful	Very useful	Extremely useful
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13. What percentage of the whole feedback do you think you listened to? \_\_\_\_\_%

14. Compared to traditional written feedback, did you prefer this method more or less?

Much more	Somewhat more	Slightly more	About the same	Slightly less	Somewhat less	Much less
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15. How challenging did you find this method to use?

Not at all challenging	Slightly challenging	Somewhat challenging	Very challenging	Extremely challenging
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If you found it challenging, what were your difficulties?

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16. What are your suggestions for improving this method?

**Receiving feedback by MP3 files**

For the next few questions, please think about the feedback for coursework that you have received by MP3, that is you received a stand-alone audio file.

17. How useful did you find this particular method in receiving your feedback?

Not at all useful	Slightly useful	Somewhat useful	Very useful	Extremely useful
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18. What percentage of the whole feedback do you think you listened to? \_\_\_\_\_%

19. Compared to traditional written feedback, did you prefer this method more or less?

Much more	Somewhat more	Slightly more	About the same	Slightly less	Somewhat less	Much less
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20. How challenging did you find this method to use?

Not at all challenging	Slightly challenging	Somewhat challenging	Very challenging	Extremely challenging
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If you found it challenging, what were your difficulties?

21. What are your suggestions for improving this method?

**Comparing all types of audio feedback**

22. In thinking about the different types of audio feedback that you received, please rank them in order of your preference for them.

- MP3
- Jing
- PDF

23. Please rank the methods in terms of quality of feedback with the first being the highest quality feedback and the last being the lowest quality feedback.

- MP3
- Jing
- PDF

24. What is the main reason for your preference?

25. Would you like to see audio feedback implemented in the future?      Yes                      No
26. Would you like to see audio feedback implemented for exams?      Yes                      No
27. If you have additional comments about audio feedback, please write them here.

## Appendix B. Interview/Focus group schedule for Learners

Thank you everyone for participating in this interview/the focus groups about audio feedback. We are very interested in getting your impressions on how receiving your feedback by audio has been. Because I can't write everything down that you say as completely as I would like, I will be recording this session to transcribe later. Please be assured that none of your comments will be identified to you although we may use them as quotes in the future. To begin, I would like to know your general thoughts about feedback, audio, written, face-to-face, or any kind. What is the purpose of it? What do you get out of it? How do you use it to help you?

I would like to talk about your experience with feedback OTHER THAN audio feedback. Please tell me what your experiences are.

- About how often did you pick up the feedback?
- How often did you read it?
- How helpful did you find it?
- What did you like and dislike about it. What did you like and dislike *most*?
- Were there any patterns that you could detect in the feedback? (if clarification needed, say in terms of types of comments, quantity of feedback)

Now let's turn to audio feedback. Specifically, let's talk about the method where you received feedback on the PDF, that is where you got your report or essay back with little sound bytes inserted into it. What did you think of that method specifically?

- What did you find particularly useful about that method?
- What did you find particularly difficult about that method?
- What changes would you make to this method?
- How well did you think this method fit the type of assessment?

Another method that you received was through Jing, that is where you got a link to a screen capture and watched a video of the feedback. What did you think of that method specifically?

- What did you find particularly useful about that method?
- What did you find particularly difficult about that method?
- What changes would you make to this method?
- How well did you think this method fit the type of assessment?
- Some students have commented that they wish they could save the video file, which would be very large, would that be an option you would be interested in?

Another method that you received was through MP3 files, that is you received a stand-alone audio file. What did you think of that method specifically?

- What did you find particularly useful about that method?
- What did you find particularly difficult about that method?
- What changes would you make to this method?
- How well did you think this method fit the type of assessment?

Of all the methods, which method did you prefer? Why?

Thinking generally of audio feedback, what are your impressions?

- What are the advantages over written feedback for you?
- What are the disadvantages?

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- Should we implement it for all assessments or just some?
- For which assessments would it be most useful for you?
- What would you like to tell the lecturers to do regarding your feedback?
- Any other suggestions?

Great, thank you for your comments. Are there any general comments you would like to make about audio feedback?

### Appendix C. Interview/Focus group schedule for Assessors

Thank you for participating in this interview/the focus groups about audio feedback. We are very interested in getting your impressions on how giving feedback by audio has been. Because I can't write everything down that you say as completely as I would like, I will be recording this session to transcribe later. Please be assured that none of your comments will be identified to you although we may use them as quotes in the future. To begin, I would like to know your general thoughts about feedback, audio, written, face-to-face, or any kind. What is the purpose of it? What do you hope the students get out of it? What are your strategies in giving it?

I would like to talk about your experience with feedback OTHER THAN audio feedback. Please tell me what your experiences are.

- How do you usually tackle written feedback?
- What is the procedure you usually take when giving feedback? Walk me through the steps.
- What kinds of comments do you tend to give?
- What do you like and dislike about it? What did you like and dislike *most*?
- What are some things you would like to change about written feedback?
- How do you think students perceive written feedback?

Now let's turn to audio feedback. Specifically, let's talk about the method where you give feedback on the PDF, that is where you inserted sound bytes into the PDF file. What did you think of that method specifically?

- What was your technique in using tackling this method?
- What did you find particularly good about that method?
- What did you find particularly difficult about that method?
- What changes would you make to this method?
- How well did you think this method fit the type of assessment?

Another method that you used was through Jing, that is where you recorded a screen capture and sent the link of the video to the student. What did you think of that method specifically?

- What was your technique in using tackling this method?
- What did you find particularly useful about that method?
- What did you find particularly difficult about that method?
- What changes would you make to this method?
- How well did you think this method fit the type of assessment?

Another method that you used was recording MP3 files, that is you spoke into the digi recorder and sent back the audio file. What did you think of that method specifically?

- What was your technique in using tackling this method?
- What did you find particularly useful about that method?
- What did you find particularly difficult about that method?
- What changes would you make to this method?
- How well did you think this method fit the type of assessment?

Of all the methods, which method did you prefer? Why?

Thinking generally of audio feedback, what are your impressions?

- What are the advantages over written feedback for you?
- What are the disadvantages?
- Should we implement it for all assessments or just some?
- For which assessments would it be best?
- What do you think about the administrative responsibilities associated with the audio feedback?
- Any other suggestions?

Great, thank you for your comments. Are there any general comments you would like to make about audio feedback?