

Which audio feedback is best?: Optimising audio feedback to maximise student and staff experience

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Abstract - Lecturers are using a variety of audio feedback methods but is one audio feedback method better than the others? Would high-performing students and underperforming students prefer different methods? Does the optimal method depend on the assessment type? We investigate three forms of audio feedback currently being used by lecturers around the UK to determine the optimal method for a variety of learners: audio-only (MP3 files), asynchronous audio-visual (embedded audio files within PDF documents), and synchronous audio-visual (video and audio screen capture with Jing). The poster will discuss our evaluation of these three methods. Quality and quantity of feedback will help determine which method will provide effective feedback for students without overburdening assessors. We hope to discuss with users of other methods how they chose that method and whether they found it successful.

Background

Research on audio feedback has found that not only do students benefit more from this form of feedback than traditional feedback but tutors do as well (King, McGugan, Bunyan, 2008; Ice, Curtis, Phillips, Wells, 2007; Merry and Orsmond, 2008). Student benefits include: easier to understand without illegible handwriting, contains more depth beyond simply stating the problem, and is a richer form of feedback. The tutor advantages are similar but have the added benefits of time savings long-term, flexibility in deviating off the standard marksheet order, and focussing on a few specific, concrete problems rather than a long list of edits without context or priority. However, tutors who use audio feedback have different ways of providing it. Each method has its advantages and disadvantages, but which method is optimal? Does the optimal method vary with student type? Because audio feedback can be delivered in a variety of ways, this research aims to compare the different methods of audio feedback for both staff and student experience.

Method

Audio feedback was implemented during the 2009 Michaelmas Term for Year Two and Year Three students (n=34). There were eight assessments, ranging from reports to essays to posters to Powerpoint presentations across four modules (see Table 1). Four tutors used three different methods of feedback. At the end of term, users were invited to evaluate audio feedback. Students participated in a focus group (n=5) and an online questionnaire (n=18). Tutors participated in interviews in pairs and singly (n=3).

Table 1. Audio Feedback Method by Assessment Type

Module (Year)	Assessment	Method
Brain and Behaviour (Year 2)	Essay	A-V Asynchronous
	Poster/Poster Presentation	Audio Only
Research Methods (Year 2)	Research Report 1	A-V Asynchronous
	Research Report 2	A-V Synchronous
Dissertation (Year 3)	Project Proposal	A-V Asynchronous
Cognitive Psychology (Year 3)	Presentation 1	A-V Synchronous
	Presentation	Audio Only
	Research Proposal	A-V Asynchronous

Twenty-seven students in Year Two participated in four assessments marked by three tutors. Seven students in Year Three participated in four assessments marked by four tutors.

Audio Only

Approach: The audio-only method was used to give feedback for poster presentations and formal presentations. Tutors 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 students via Blackboard ensuring secure, private transfer. Students then retrieved the audio file, listening to it using a compatible media player and speakers.

Student Perspective: Students found this method somewhat useful and on average, listened to 80% of the content (see Fig. 1). They generally preferred it more than written feedback but less than the other audio methods. This method was the least challenging to use and those who preferred it called it “quick and simple”.

Tutor Perspective: Tutors found this method very easy to use and on average, would record 6 minutes of feedback. This method was appropriate for presentational types of assessments. When giving feedback with this method, tutors found they were giving broader, less specific types of feedback. This method was the least preferred amongst the tutors despite its simplicity.

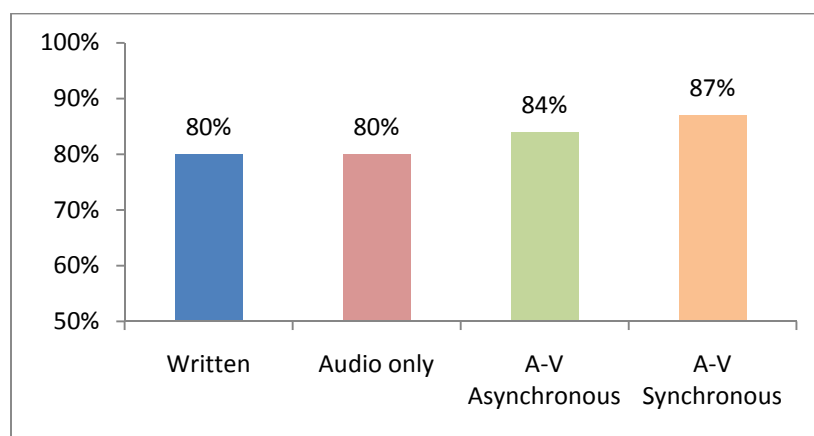


Fig. 1. Percentage of Feedback Read or Listened to Self-Reported by Students.

Audio-Visual Asynchronous

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

Student Perspective: Students found this the most useful method and on average, listened to 83% of the content. They preferred it for the specificity, detail, and the ability to self-pace whilst listening to comments. They remarked that this method was especially appropriate for reports that had a rigid structure and comments were divided into sections. This method was the favourite amongst students (see Fig. 2), and several reported that this method helped increase their mark for the next assignment by as much as 20 marks.

Tutor Perspective: Tutors found this method straightforward to use and on average, would record 12 minutes of feedback. They preferred this method for formal written coursework 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 tutor had given, very tedious downloading and uploading process, and the inflexibility of marking somewhere other than the tutor’s office. Half the tutors felt this method was best.

Audio-Visual Synchronous

Approach: This method was used to give feedback for formal presentations and research reports. Students submitted assignments electronically using the Grade Center via Blackboard and for presentations, were recorded on video. Tutors 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 tutor actively scrolled through

the document. Jing imposes a maximum recording time limit of five minutes. A link generated by Jing was sent to the students. Students clicked on the link which opens a video of the screen capture. They listened and watched the feedback using an internet connection and speakers.

Student Perspective: Students found this method very useful and listened to the content the most using Jing (average of 87%). Whilst it was the most challenging method, students found this method helpful for feedback on formulating arguments in essays. Preference for this method depended on the type of assessment but generally, they liked it less than the PDF but more than MP3. They enjoyed seeing the tutor's thought processes going through the coursework and felt "like you're sitting next to them while they talk to you".

Tutor Perspective: Tutors found this method easy to use and consistently used the maximum time limit of 5 minutes. This method was a compromise between the previous methods, where tutors 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". Sending a link was easier than uploading files of the previous methods, and half the tutors favoured this method.

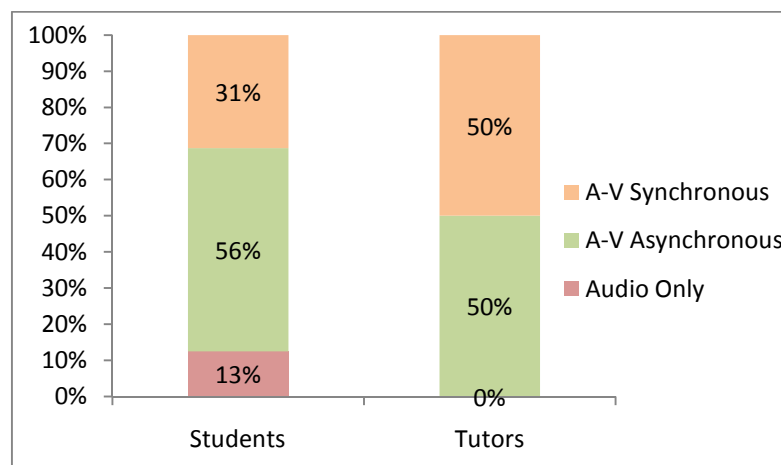


Fig. 2. Distribution of Overall Preference for Audio Feedback Method Amongst Students and Tutors.

Conclusion

The optimal type of audio feedback varies by assessment: MP3 is good for posters and assessments that cannot be submitted electronically, PDF is best for reports and proposals, and Jing is good for essays and presentations. Students preferred the PDF method the best and the MP3 the least. No obvious differences in preference were detected between high-performing and underperforming students or other types of students. Tutors felt the administrative burden of the PDF files was the greatest but also felt that method produced the highest quality feedback most useful for students. Tutors were split in their preference between PDF and Jing. In choosing the type of audio feedback to use, tutors should match the audio feedback to the assessment.

References

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