Sheffield Hallam University

A workshop on using audio devices to improve student learning

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A workshop on using audio devices to improve student learning

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Abstract – **This workshop will give attendees the opportunity to experience how audio devices can be used to enhance learning. Some role play exercises will replicate scenarios that students will encounter and demonstrate how effective use of the audio device is a significant supplement to their learning resources and therefore ability to learn. The session will also include a brief presentation highlighting the many potential benefits of the devices and how to encourage students to take advantage of these.**

Index Terms – Audio devices, MP3, note-taking, independent learning.

INTRODUCTION TO AUDIO IN LEARNING

In recent years there has been a growing interest in producing audio resources to supplement students' notes. Typically this audio is generated by the academic and most commonly is either a recording of a whole lecture or snippets of lectures [1-5]. Often these resources are referred to as podcasts. However, there is a growing recognition that while lecturer generated audio is useful there are two major criticisms of this approach:

- A key learning objective for undergraduates is the development of independent learning skills. Students need to take responsibility for directing their own learning and finding/creating their own learning resources.
- Audio is most useful when it is focused, such as individual feedback to a student, though often the workload for staff of generating and distributing such audio files is not manageable.

The aim of this workshop is to help attendees to experience and evaluate an alternative model for audio feedback, that is one where students themselves have responsibility for generating their own audio resources. The intent is that attendees will then have enough information to make initial judgements on the potential benefits for their own students.

The remainder of this paper gives a brief summary of the work, that has recently been submitted for publication elsewhere, demonstrating the efficacy of student generated audio files. This is useful supplementary material to the attendee experiences on the day.

USAGE OF AUDIO DEVICES IN SHEFFIELD AND SHEFFIELD HALLAM

In the authors' institutions there was a conviction that student generated audio would enhance the learning and learning experience of students and hence a pilot project, partially supported by the engineering subject centre, was proposed to test this hypothesis.

Rather unusually for projects in learning and teaching, the main workload of the project fell on the students with the role of staff being largely administrative and, as this was a project, evaluation. This focus fits with the underlying aim of encouraging students to take responsibility for their own learning and creating their own learning resources; within this is the desire to help students to learn how to learn.

Thus the project was simply defined: the universities purchased some portable audio devices capable of recording conversations with a simple button press and then distributed these to students with some guidance on when to use them and when not to use them in the form of a protocol agreement.

Students were encouraged to record interactions with staff and peers and listen back to these recordings later. Very quickly students were able to discern which scenarios were worth recording and how to make effective use of these for learning.

Sheffield focused its efforts on 1st year engineers and the development of new learning skills during transition, whereas Sheffield Hallam focused on the potential benefits for international students and those with disabilities.

SUMMARY OF SCENARIOS AND BENEFITS

This section gives a brief summary of the many uses that students have found for the audio devices and some evaluation.

I. Audio device uses

Guest lectures –students reported recording guest lectures as very useful as there is little or no opportunity to speak to the lecturer after the lecture for clarification.

Personal audio notes – many students use the devices as a memory device, recording their personal reflections and observations. These might also be supplementary notes.

Group work –students have used the equipment to record group discussions and even used these as formal minutes.

Laboratory sessions – some students have recorded the academic feedback from laboratory sessions.

Lectures, seminars and tutorials – most students have recorded some formal learning sessions and/or small group or individual meetings with staff.

Work placements – students recorded conversations during placements.

Sharing - students reported that an additional learning benefit is in sharing recordings with their peers.

Other Usage: The devices were also used for presentation preparation, recording role-play meetings; interviewing; supporting one-to-one project supervision; helping to clarify group assignments by sharing the recordings with peers; recording academic assessment briefings, etc.

II. Student comments and evaluation

Within both institutions focus groups were held; the following are a brief selection of comments which indicate the benefit students are finding from using the audio devices. *"There was a time when I thought I had lost it and I felt like some part of myself was missing because I was so used to using it. When I found it I was really happy."*
"I am hopeless at taking notes [hand-written and typed]…recording and doing it in my own time, …I can reflect more on what has been said."
"Being an International student you are sometimes last in the class… it is important to record [lecture]... then go home to listen again to make something clear."
"[After the lecture] I look at the notes. I understand in theory but it would be really helpful... to listen to their [academic] interpretation of the slides [again]."
"There was this oral presentation. So I could practice by listening to my speech. I recorded my speech and listened to myself."
"I tend to remember things... more easily when I am listening to them."
"When you hear it over and over again you know exactly what they are saying. If you miss some words because of the language barrier, then you can hear it again."

Some students recommended having recorders with them at all times and the majority reported listening to the recordings every few days, typically as they reflect on a lecture or prepare for a task. Students describe the recordings as an opportunity to reflect upon, re-connect to and clarify their understanding of the material in the recordings. Many students expressed that audio recording helped them gain a deeper understanding of their studies and had a positive impact on their learning.

CONCLUSIONS

This paper has given a brief summary of a project encouraging students to generate their own audio learning resources. It is clear that students are finding benefits from recording many different scenarios and developing new learning approaches. The intention of the workshop is to help attendees evaluate this through experience.

ACKNOWLEDGEMENTS

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