

## Using an MP3 recorder to give feedback on student assignments

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Are lecturers looking for a way of giving students good-quality feedback on their work, whilst saving time? Of course they are!

Feedback can powerfully influence student learning. Indeed, as Ramsden (2003: 187) says, 'It is impossible to overstate the importance of effective comments on students' progress.' Feedback is best (Brown, 2001) if it:

- is timely
- is perceived as relevant
- is meaningful
- suggests ways of improvement which are within the student's grasp.

Unfortunately, feedback is one of the aspects of higher education with which students are least satisfied (HEFCE, 2005). A difficulty is that with rising student numbers and deteriorating staff: student ratios it is increasingly difficult to provide high-quality feedback to students on the work that they do. Those assessing students are under pressure to find and use techniques which are both efficient and effective. Various methods have been suggested, e.g. (Race, 2006) statement banks; whole-group feedback; assignment return sheets; model answers; posting comments of common errors and difficulties to an electronic discussion board. Another idea, advanced by Rust (2001), is to use audiotape to give feedback. Here he explains its advantages:

*'While reducing the time you spend, this may actually increase rather than reduce the amount of feedback given...Students frequently say that they get far more information from taped comments, including the tone of one's voice, than they do from written comments, and they also do not have to try to cope with some of our illegible writing.'*  
(Rust, 2001: 22)

However, lecturers seem not to have widely taken up Rust's suggestion. Why not? I speculate that there will be several reasons, amongst them:

- organising students to supply an audio cassette along with their assignments
- reluctance to deal with an even larger pile of material (e.g. 100 essays for marking, plus 100 cassettes)
- keeping track of everything
- not having a cassette recorder handy, when and where they do the marking
- learning how to use the recorder and gain the skills necessary to give fluent, worthwhile feedback
- ensuring that everything is returned to the appropriate people.

That's a pretty substantial list, enough to deter many. However, as time goes by, another reason not to follow Rust's advice is looming larger: audio-cassette technology is becoming obsolete. Cassette recorders and players – analogue devices – are disappearing. Everything and everyone is going digital. Sound (e.g. music, speech) is increasingly recorded and processed on computers, and distributed via CD, MP3 file or podcast.

Could a typical lecturer use digital technology to follow Rust's advice – give audio feedback to students? I believe so, with an MP3 recorder.

There are many formats for digital sound files, but most have drawbacks. For example, WAV files tend to be very large and AAC files may be restricted to Sony products. However, these days, a high – and rising – proportion of students have MP3 players and the MP3 format is becoming the *de facto* standard which any digital media device can

access. MP3 players – including the popular and fashionable iPod – are becoming steadily cheaper and students are increasingly to be seen wired up and listening to music on the bus or in the street. Maybe assignment markers could put their feedback into an MP3 file, so students could listen to it whenever and wherever they want, as many times as they want.

I've been experimenting with the creation of MP3 files for various purposes. First, it was to enable me to read stories to my (distant) grandchildren. But then I played around with producing four or five minutes' worth of oral commentary on some assignments from students on a Postgraduate Certificate in Higher Education (PGCHE), a programme for new lecturers. For the early attempts, I downloaded and installed on my home PC some free audio recording and editing software, 'Audacity' [<http://audacity.sourceforge.net/>]. It was a little fiddly to set up, requiring the 'LAME' encoder plug-in. Then it was a multi-step process to produce an MP3 file (record, edit, convert to MP3 format). It was also less than flexible in use; I found myself needing to wear a headset to input the sound and monitor the output as I edited it. I was able to produce five minutes or so of commentary on PGCHE assignments – which the students much appreciated – but it wasn't saving me any time, even when I had become used to the software and the novel (for me) business of recording my voice for an official purpose. Clearly, this was not a technique I could recommend to the great majority of my colleagues who were neither as technically-minded as me, nor as determined to persist till the time savings were achieved.

I realised it would be better – and more likely to be adopted by others – if I could use a hand-held device, something like a Dictaphone, to produce MP3 files, which I could then upload to a computer via USB connection and forward to students via email or their personal space in a virtual learning environment (VLE). The problem has been that until shortly before the time of writing (late 2006) most such devices could not output in MP3 format. Intermediate steps have been necessary (e.g. upload to computer and convert to MP3 via some utility). Of course any such complications deter some potential users and reduce the time savings.

However, small MP3 recorders with USB connections are now beginning to appear. I have tried two to date, differing in build quality and convenience. With the better one, it truly is a simple matter to:

- record – directly as an MP3 file – a few minutes of feedback on a student assignment
- plug the recorder into a USB port on a PC
- upload the file
- rename it (to include the student's name or ID, for easy reference)
- send it to the student.

This is technology which most lecturers could soon use. After a short period of learning, they would be saving time and providing a better service. Would they also be pleasing their students? Probably, if the following quotes from PGCHE students are anything to go by.

**Student comments:**

*'I really liked this method of feedback. It makes it much more personal ... and shows that you actually spent time looking at my work in detail. Students appreciate that.'*

*'I rather liked having you talk me through the feedback like this. It's nicer than face-to-face somehow, as I always feel I have to react and talk when I'm face-to-face, so I found I concentrated on the comments better.'*

*'I don't think I read all my feedback from the previous assignment, but I did listen to all of your audio file, twice – possibly just because it is a novelty, but I don't think so. It does not take too long at all to listen to, and I think it is nice to hear positive things said about your work and also easier to take criticism that way. There is also never the problem of illegibility!'*

*'It was very useful to be taken through [my feedback] slowly and carefully. I am sure I have taken in more this way. Also, the personal touch is always welcome and it is almost as good as a face-to-face feedback meeting. In fact, if I had received a low mark I think I would have preferred this method to a face-to-face meeting as it would 'save face' whilst still getting personalised feedback. ... I suppose even if the feedback was more complex than [it was,] it would have the advantage of being repeatable, so that I could replay it until I understood.'*

*'One problem associated with feedback is that ... not many students really seem to read and consider it as a learning opportunity. ... Your experimental delivery method may encourage students to really listen and consequently use feedback in a constructive way. ... I did like the fact that you commented page after page rather than addressing a list of summary points, thus enabling the listener to follow your comments by looking at the assignment.'*

*'A comment delivered in words may be quicker to prepare than a written comment and much more can be said. So bearing this in mind, it may become a favourite method among lots of staff.'*

*'I thought it was great! I am currently beneath a pile of marking myself and there are often times when I would like to deliver more feedback than I have time to write, particularly with final-year dissertations. It also strikes me as an ideal feedback mechanism for the impending implementation of distance learning on our ... masters programme. ... With widespread acceptance of the MP3 compressed format ... and 'podcasts', I think it could be very useful.'*

### **Saving time**

Will assessors really save time if they simply give feedback via an MP3 recorder? Almost certainly, once they have learned to use it and had a bit of practice at recording comments. How long will it take to become familiar with the recorder? Probably less than an hour, even if one is – as many profess – 'not very good with technology'. How many assignments will one need to give oral comments on before being comfortable with structuring and recording them? That's a personal thing, dependent on many variables, including self-consciousness about one's own voice, degree of perfectionism, etc. But it shouldn't take long. I improved a lot while doing the first four or five, and felt quite relaxed and confident after a dozen. We shouldn't worry about minor mistakes or imperfections – students understand that the recording isn't produced by the BBC (so are pretty forgiving) and anyway we can instantly correct 'mis-speaks' or lack of clarity, as we do in everyday conversation.

How much time will be saved? Obviously, that depends on how much feedback one gives. My usual style has been to put remarks in the margins of the assignments and to supplement these with word-processed comments. Using an MP3 recorder, I still want to give written marginal comments, but substitute a sound file for my word-processed feedback. Hence, for me, the scope for economy is almost entirely confined to the time I spend on word processing and printing. Relative fluency in both media matters too: I can speak without much hesitation, but tend to write quite slowly. It may be different for others. And then there is the quality of the assignment: I'm probably not the only marker tending to provide more feedback on a poor assignment than on a good one. So how does this all add up? At present I can give only a personal answer. My first twenty MP3 files varied in length between four and nine minutes, with the more detailed commentary being on those at the lower end of the mark range. Typically, though, I was soon able to record five minutes of detailed feedback within ten minutes. Replaying took another five

minutes or so. All this was significantly faster than word-processing the page of A4 which was the norm on the PGCHE programme.

### **Accountability**

In marking student assignments, as with much else in education these days, we have to keep good records. This is so we can provide *evidence* of student performance, *demonstrate* what has occurred and, perhaps, let students have a duplicate of our feedback if the original goes astray. A common assumption – of managers, subject reviewers and external examiners – is that these records should be in hard-copy (*i.e.* paper) form. But is this really necessary? Could some records simply be digital? In particular, might an MP3 file of assignment feedback satisfy everyone?

Here is an anecdote which gives grounds for optimism. The external examiner on the programme where I experimented with giving feedback via MP3 files was no technophile. Like many academics, she was familiar with basic ICT applications such as email, word processing and the web. On the other hand, she had no media player on her PC and had never, knowingly, heard an MP3 file (music or otherwise). However, when I explained my experiment, she equipped her PC and agreed to receive a sample of my MP3 files by email, along with the (hard-copy, sorry!) student assignments. We had an interesting correspondence about the experiment. She made some complimentary remarks about it and was satisfied with receiving my feedback on the students' work only as MP3 files and not on paper. Technology aside, an additional moral of the story is to create a dialogue with external examiners. It may pave the way for changing policy and practice.

### **Sound quality**

MP3 files are *compressed*, typically to a tenth or less of the size of a CD file. Being compressed, they are quicker and – with the pricing policies of telecoms companies – often cheaper to move around than their uncompressed equivalents. There is a trade-off between file size and quality, though. The greater the compression, the lower the quality. So I suggest some testing, to find out what will satisfy the particular lecturer and students.

That said, experience from the music and radio industries suggests that most listeners are not much bothered about sound quality as long as they can follow what is going on. 'CD quality', 128 Kbps, (about 1MB per minute) will probably be overkill for assignment feedback; 32Kbps (roughly 1MB per four minutes and usually better than phone quality) is likely to be adequate.

### **Buying an MP3 recorder**

This might be a problem, but one which lessens with time. In mid-2006 it was neither easy nor cheap to buy a hand-held MP3 recorder, especially one with a USB socket for uploading the recordings. After extensive searching, I found only three, priced at £135, £300 and £600+. The £135 device proved not to be good enough: it was too small to use comfortably, build quality was poor and it developed a fault after about three months. In contrast, the £300 device has been fine – well-built, comfortable in the hand, easy to use, and producing recordings of superb quality (even the lowest setting is very good). I won't name any of the recorders because they will, no doubt, soon be superseded by cheaper, more capable and more widely-available models. With the rise of podcasting (podcasts are in MP3 format), by the time this is published, there is likely to be greater choice, at more affordable prices. A department may be able to justify buying one or more, perhaps for shared use.

### **So is it worth using an MP3 recorder?**

Earlier, I came up with several reasons why Rust's (2001) suggestion of giving assignment feedback on an audio cassette had not been widely adopted. Some of the barriers remain even when using a good MP3 recorder, e.g. learning to use the device; becoming fluent while speaking into it; ensuring people receive their own feedback and

not someone else's. Also, as with cassette recorders, there may not always be one to hand when marking. However, other objections will have evaporated or diminished if an MP3 recorder can be obtained – there is no need for students to provide a cassette along with their assignment and there are fewer physical objects to keep track of or be intimidating in the marking pile. So whilst the process is not entirely problem-free, there are probably fewer reasons nowadays *not* to provide feedback via an audio recording.

On the positive side of the balance sheet, my students very much liked getting an MP3 file from me containing a few minutes of feedback on their assignments. They appreciated the personal touch, without it being, perhaps uncomfortably, face-to-face. Withholding the mark till near the end made them listen to my comments, rather than skimming or skipping what I was saying. They valued being able to replay my words until they understood the point I was making. They noticed that I probably said more than I would have written. There was no problem with illegible handwriting. And – perhaps the clincher – it was soon saving me time.

True, my audio-recordings didn't have to be in MP3 format to obtain these benefits. However, MP3 files are very widely accessible these days, probably more so than any other sound format. In addition, they are smaller, minute-for-minute, than most file types, making them quicker and cheaper to send and receive.

Assessors could use free software to create MP3 files with their comments on students' work, but it's currently rather fiddly and one may need to wear a headset and be wired to a computer to do things this way.

Much simpler and more convenient is to create MP3 files directly with a hand-held MP3 recorder which has a USB socket for uploading. These gadgets aren't cheap but should become more affordable. Even at 2006 prices, it would be worth most university departments buying one or two for shared, experimental, use. Lecturers could then record their feedback wherever they like, except on a crowded train, I hope!

And if the purse-holders need more persuasion, we could tell them we're planning to use the MP3 recorder to start podcasting.

## References

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