The medium is not the message: an action research project on the use of recorded audio feedback.

David Dennison

School of Film, Media & Performance University of Central Lancashire

Abstract

Feedback to students remains a contentious issue for both staff and learners: "the UK-wide National Student Survey has shown consistently that feedback is an area in which students are often least satisfied, irrespective of institution or discipline" (Rodway-Dyer et al, 2011)

"Feedback on students' work is, probably, one of the most important aspects of learning, yet students' report, according to the National Union of Students (NUS) Survey of 2008, unhappiness with the feedback process" (Lunt & Curran, 2010)

"... teaching staff complain about lack of student engagement with feedback and a loss of connection with students" (Cann, 2014)

This paper presents a case study carried out with first year undergraduate students to compare and contrast the use of audio feedback and text-based feedback. ("Audio feedback may be defined as a digital sound file containing formative or summative verbal feedback given by the tutor". Hennessy & Forrester, 2014).

Shriver (1992) has suggested that recordings of spoken feedback can be used as "think-aloud reading" and help students to focus on the impressions their writing gives to the reader. This research was directed towards writing skills but other research e.g. Lunt & Curran (2010) indicated that audio feedback had been favourably tested by students in business and tourism. Rodway-Dyer et al (2011) tested similar ideas with geography students and met with a largely positive response.

Other research has suggested that the issue is not so clear-cut: "some [students] found the richness of the audio feedback a precursor to even greater effort, some students pointing out forcefully that its pro-social nature created an affective relationship, whilst others found it at best, redundant in terms of its cognitive effects, and at worst, an intrusive and unwelcome intimate obstruction to understanding." (Gleaves & Walker, 2013)

The study carried out in BA(Hons) Photography suggests that not all students see a benefit in audio feedback but that it may have a role within the curriculum as part of a broader feedback strategy.

Keywords: assessment, feedback, mp3, audio,

LEARNING THROUGH FEEDBACK

Research into learning and assessment has, for many years, highlighted the importance of feedback – "one of the most powerful influences on student learning and attainment" (Hattie, 1987; Black & Wiliam, 1998; Gibb & Simpson, 2004, referenced in Rodway-Dyer 2011). The functions of effective feedback have been discussed extensively, with many attempts made to identify key aspects such as "correction, reinforcement, forensic diagnosis, benchmarking and longitudinal development (feed-forward)" (Price 2010 p278). Feedback needs to have utility for the student - "Feedback is only effective if it helps students improve their work" (Brookhart 2011). This point is echoed by Weaver – "Alerting students to their strengths and weaknesses can provide the means by which they can assess their performance and make improvements to future work. (Weaver 2006 p379)

It seems that staff and students are in agreement on some key issues: "Students want to see applicability in the content and timing of the feedback provided; staff want to see the feedback applied in subsequent work." (Price 2010 p285). "This feedback needed to be positive, clear and constructive

with a focus on acknowledging their successes and guiding them towards future improvement." (Ferguson 2009, p60). Students, understandably, want the feedback as quickly as possible.

National Student Surveys in the UK, however, have "confirmed that students' experience of the assessment process is the aspect about which they are least satisfied" (Price 2011, p479). Interestingly, Price goes on to say that "A staff survey could well yield a similar level of dissatisfaction. (Price 2011, p479).

Staff dissatisfaction is supported by research which found that less than half of the students in one investigation even collected their formative feedback - "clearly a signal that they found it to be of minimal use". (Sinclair and Cleland (2007) referenced by Ferguson 2009, p52) Lunt & Curran's experience also suggests that very few students collect their written feedback after summative assessment – "the collection response by students from tutors' offices is less than 5% while downloading of audio files was never less than 50%". (Lunt & Curran 2010 p765)

THE MEDIUM OF FEEDBACK

Traditionally, assessment feedback has been provided in written form though a wide range of approaches are used, from hand written annotations on a script to word processed documents that are emailed to students or sent via some form of virtual learning environment.

Providing feedback in an audio format is a more recent development and has been taken up with enthusiasm by some educators. There are many claims relating to the benefits of this format: often these benefits fall into specific categories, for example being able to hear the tone of voice of the tutor which may lead to "a perception that the teacher cares about the student" (Bourgault 2013 p43). Other positive claims for audio feedback focus on "the fluidity and immediacy of speech is able to confirm meaning through slightly different phrases and explanations that might look repetitive in textual feedback" (Gleaves 2013 p251). Gleaves reports on other potential benefits: "the richness of knowledge and vocal cues, timeliness of feedback return, ease of access, culturally-appropriateness, discretion, and social presence" and claims that these factors can go some way towards equalizing diverse backgrounds and previous experiences within the student cohort.

Student reactions to feedback in an audio format evidence other potential benefits, for example "it was easier to understand because handwriting is often illegible" (Merry and Orsmond 2007 p101), but of course this is more a critique of poor feedback. Comments from students such as "it seemed 'more genuine" and "The spoken word meant more than words on a piece of paper" from the same group of students (Merry and Orsmond 2007 p101) reinforce the interpersonal benefits outlined previously. The authors also speculated that daily experience of mobile technologies might help students to appreciate audio feedback since many students are "more used to information being conveyed as sound than as written words possibly reflecting their increasing use of multimedia technology in their lifestyles and, perhaps mobile phones in particular." (Merry and Orsmond 2007 p102)

Hennessy & Forrester cite other potential benefits of audio feedback, for example it may be "more nuanced than a written piece, with meaning being derived from not only the spoken words but also the tone of voice, which could be used to convey an overall impression of the piece." (Hennessy & Forrester 2014 p781). Nortcliffe follows this view of audio feedback, claiming that it can be "more engaging due to its capacity to convey more meaning through the tone of the speaker's voice, and other nuances. (Nortcliffe 2011 p280). Other writes have similar views and point to how audio feedback may help to develop a better tutor-student relationship by decreasing social distance and "in subsequent face-to-face supervision sessions, and in response to audio feedback, students felt more comfortable to challenge, ignore and argue as applicable." (Hennessy 2014 p784)

Student reactions to feedback

A number of studies have reported on student dissatisfactions with written feedback, for example the perception of standard comments and a lack of sufficient detail. Hennessy & Forrester addressed this points and reported that "students regarded audio feedback as a personalised method of addressing issues in their individual piece of work." (Hennessy & Forrester 2014 p782). Even so, opinions varied within the student cohort under investigation, for example comments such as "I think it [audio feedback] is more helpful than written feedback and easier to understand ... I would like to see other tutors using this method of feedback" need to be balanced against "I wouldn't want to receive audio feedback again; ... If it's written I can take it in better and if it is written down I would see it as a list to improve on." (Hennessy & Forrester 2014 p785)

In another study, students felt that audio feedback was more detailed than written comments. Their tutors agreed, citing "time or space constraints" and a barrier to providing more feedback in written form. (Merry 2007). Students in other studies have commented that it is "impossible to read the scribbles on the coursework/pink sheet" and that the feedback sheet is "a standardised collection of 40 words". (Lunt & Curran 2010 p764)

One issue that this paper will return to is students' understanding of the purposes of feedback that go beyond simply providing a grade: certainly students are in a perfect position to make accurate judgments about speed of turnaround and level of detail, but if aspects of feedback are designed to challenge them or their approach to work they may be "not always in the best position to judge what is educationally preferable" (Huxham 2007, pp609–10). Reporting on Huxham's findings, Ferguson concludes that this may '... present something of a conflict between student preferences and educational outcomes' (Ferguson 2010 p59).

Students need to view feedback as a way of improving their abilities and understanding, rather than providing or justifying a simple percentage grade. Tutors also have a role in ensuring that feedback does not simply "justify the grade". (Price 2010 p285) Indeed Price suggests that "aspects of feedback that support development of the learner are not easily measured and must rely on less objective measures". (Price 2010 p287)

Relational issues in giving and receiving feedback

Tutors should be wary of viewing audio feedback as some sort of magical solution to students' dissatisfactions with feedback. Some of the evidence discussed above would suggest that many student complaints about feedback – lack of detail, the use of standardized phrases, time delays etc. simply define poor feedback and do not differentiate between written feedback and audio feedback, or any other form of feedback for that matter. A study by Price emphasised the need for positive and supportive relationships between tutors and students that enable a process of dialogue around feedback and assessment – "Students and staff were clear that the relationship between student and assessor is at the heart of a successful feedback process" (Price 2010 p285). In fact a lack of discussion around issues of assessment and feedback often led to feelings of "frustration and disengagement." (Price 2010 p284). In Price's paper we are reminded that the "relational dimension" between students and tutors who mark their work plays a large part in encouraging student engagement with the learning process.

Other issues impacting on the effectiveness of feedback

If we accept that no two students will receive or perceive identical experiences in any educational system, we need to examine the impact of feedback on students from a variety of backgrounds and students with varying levels of previous achievements. We might also consider the effects of many other factors - culture, disability, race, ethnicity, etc., as well as the position of the student within a longitudinal programme of study i.e. first year undergraduates as opposed to third year students. Many of these factors have an impact on a student's education that go beyond the remit of this paper, but two factors may have a universal impact on all students – previous levels of achievement and educational experience.

Some evidence suggests that students who have experienced a high level of success in studying ("high achieving students") "tried to understand the essence of feedback; did not accept all feedback; believed that they could get by without tutor feedback; related feedback to their own learning and career goals." Whereas their non-high achieving colleagues "accepted judgment; believed judgment was crucial to success; focussed on that specific learning episode; used feedback in order to produce work the tutor is looking for". (Wakefield et al 2014 p254)

This is reinforced by Weaver – "High and medium self-esteem students tended to see feedback as something they were able to act on and make use of; students with low self-esteem were more likely to feel defeated and consider leaving the course. ... Those with low self-esteem tend to view all feedback as a judgment of ability, whilst those with high self-esteem do not (Weaver 2006 p381)

The literature also points to differences in perceptions of feedback between first year and final year degree students – "Evidence ... suggests that final-year undergraduates had greater resilience to being given constructive, but critical, remarks, and are more proficient in utilising tutors' comments to improve their work. This contrasts with the first-year students, who typically yearn for positive comments on their work and do not accept constructive criticism so readily." (Hennessy & Forrester 2014 p783). First year students often experience difficulties in adjusting to university life and living

away from home, such that "Any criticism they receive in the early stages of their academic studies makes the transition from home to university all the more difficult". (Hennessy & Forrester 2014 p784). The early stages of university life can be difficult for most new students and coping with negative feedback makes life even more difficult (see Rodway-Dyer 2011 p222). By the time students are in their third year, they seem more able to cope with negative aspects of feedback and can see it as part of "an academic dialogue between tutors and students." (Hennessy & Forrester 2014 p788)

Potential impact on Staff time

Some research results claim that providing audio feedback is quicker for the tutor – Lunt, for example, reports that "the tutors took, on average, three minutes to type the sample [111 words of feedback], four minutes to write it by hand and 40 seconds to record it." (Lunt 2010 p762). Clearly this does not include the time taken to read or view the submission, form an opinion, relate the work to the assessment criteria, identify positive and negative points, decide upon appropriate words of feedback etc.

Other research makes no such claim to save tutor time – in one study there was "no difference in instructor time" between providing written & audio feedback (Bourgault 2013 p43). In a similar vein, Rodway-Dyer suggests that "from the tutor's point of view, it was certainly not time saving" and also found that "students also reported finding audio feedback time consuming to listen to" (Rodway-Dyer 2011 p229), something that the research for this paper has confirmed.

STUDENT REACTIONS TO AUDIO AND TEXT-BASED FEEDBACK

A group of first year BA(Hons) Photography students (n = 29, male = 6, female = 23) were given feedback via audio MP3s emailed to their University account in November 2014. They had previously experienced written feedback from another assignment in the same module. They were asked to reflect on the audio feedback and compare it to written feedback by writing up to three comments to outline what they liked and up to three comments to outline what they did not like.

The table below summarises the positive and negative comments. Duplicated comments are marked (x2) or (x3).

Positive Perceptions of Audio Feedback	Negative Perceptions of Audio Feedback
 Enabled me to engage with it Personal and informal but at the same time had the formal feeling of written feedback A lot more personal (x2) 	 Wanted a paper copy to read over improvements It was weird hearing your tutor but not seeing Sometimes not taken as seriously
 Easy to access – emailed Easy to understand (x3) 	 Slightly uncomfortable to listen to If you wanted to listed to a certain point
Hearing points verbalized makes for easier comprehension	 you would listen to it all to find it Tone of voice (more relaxed if possible)
 Easier to keep hold of than a piece of paper 	 Going back to points can be annoying but not a major problem
More personal than written	Could be longer
Tone of voice helps with understanding critical work	LengthyShort – could be longer
 Understanding and more depth of the feedback 	 Not as many points covered than written feedback
 Seems much more personal; like a 1:1 tutorial almost 	No reference to go back to

- Friendly
- More detailed than written
- Not as formal
- Easier to understand (x2)
- Easy to listen to
- Easy to understand, spoke slowly
- It was amusing
- Was good to actually hear the feedback not just have it on paper
- It was interesting and a bit different from the normal written feedback
- I could tell how you were saying it, as if you liked it or not
- Always there to refer back to when amending work
- Took a long time to turn around
- Felt more personal i.e. a direct response to the work
- Showed more effort going into marking/assessing. Response was easy to understand and was equivalent of one to one session
- It was more informal than written feedback so was easier to understand
- You couldn't lose it
- Clear, concise, easy to understand
- More like a one to one feedback session
- I could hear the tones of your voice, so it was clear whether you were being positive
- It was more personal and easy to engage with
- Easier to come across and felt more personal whereas written you feel like everyone has the same

- Not a physical thing to read over and over
- Too friendly
- No written record
- Cannot underline
- It was odd ...
- I find it easier to absorb if it's written so I can go back to it later
- Couldn't understand some things which were said
- Didn't understand some terms which were used
- Some things are harder to understand
- Just preferred to have the written version with me
- I couldn't sit read and reflect
- Difficult to listen to on the move need a quiet environment, written more portable
- It was harder to pick points out of it because you had to listen to the whole file
- I found it too friendly i.e. not sure that criticism carried much emphasis
- No record that I can go back to in the future
- Some noises such as breathing can be distracting
- It was unusual and somewhat 'comical'
- Must be quiet around to listen to feedback, others could listen too, maybe embarrassing?
- Sometimes a little difficult to understand
- No paper copy
- How difficult it is to retain information
- I didn't have a copy written down to take notes on

The students in this small and informal survey were much more equivocal about the benefits of audio feedback than the student respondents in other research discussed in this paper. This may be because they had already received good quality feedback on a previous assignment, unlike many students in a number of other studies. In terms of the positive perceptions, many students mentioned the more 'personal' aspect of hearing a voice and nuanced tone-of-voice advantages discussed earlier. On the negative aspects, some students wanted a paper copy to underline or pick out specific points. Interestingly, some thought that the feedback was more detailed even though the number of words used was very similar to their previous written feedback – this perception might be accounted for by the fact that it would take longer to listen to the audio than scan-read a printed A4 feedback sheet.

One student though the audio feedback showed 'more effort going in to marking/feedback' - in fact the author's experience is that it takes the same amount of time to record audio feedback as it does to dictate feedback into a speech-to-text application.

It would be quite difficult and time consuming for a student to compare her audio feedback with the feedback received by another student, which might account for the perception that the feedback was more personalised 'whereas with written you feel like everyone has the same'.

DISCUSSION – THE MEDIUM IS NOT THE MESSAGE

It is the author's view that a widespread adoption of audio feedback would not, on its own, address the many issues surrounding the provision of feedback and student perceptions of feedback. When Lunt and Curran found that 65% of students in one survey agreed or strongly agreed that audio feedback was preferred, they speculated that 'This majority view could be due to the poor standard of feedback they receive in general' (Lunt & Curran 2010 p764).

Much of the evidence cited in the paper suggests that student enthusiasm for audio feedback may be driven by the poor quality of written feedback they received previously.

Rather than consider only the medium of feedback, tutors might be better to focus on a more holistic view of feedback in the context of learning, for example by establishing a dialogue with students to ensure that they know how to benefit from feedback they have received, irrespective of format. Of course it goes without saying that tutors must first of all provide feedback that is timely and 'positive, clear and constructive with a focus on acknowledging their successes and guiding them towards future improvement.' (Ferguson 2009, p60),

Boud & Molloy identified a number of 'characteristics of sustainable feedback' which included 'involving students in dialogues about learning which raise their awareness of quality performance' and encouraging them 'to develop capacities in monitoring and evaluating their own learning' (Boud & Molloy 2013 p704). Reflecting on this, Orsmond & Merry concluded that 'The lack of feedback dialogue means that students never become fully aware of the potential contribution of feedback to their learning and tutors never fully appreciate how their feedback is being used. (Orsmond & Merry 2011 p134). They went on to outline a number of ways to enhance feedback and engage students in a dialogue which included a number of very practical and effective suggestions which included

- Asking students to collect their feedback together for discussion of overall trends with their personal tutors.
- Encouraging students to set a 'what is required and why' agenda with the tutor when they undertake an assignment.
- Discussed with students their intentions as to the purpose of their feedback so endeavouring to reach common understandings. This could be a component of a personal tutorial system.

These points are reinforced by Price who encourages tutors to 'harmonise views on purpose and process' of assessment, and to attend to the 'relational dimension of feedback will lead to increased engagement, provide staff with opportunities for monitoring feedback effectiveness and enable students to make informed judgments about the feedback process.' (Price *et al* 2010 p288)

CONCLUSIONS

'... good feedback practice should encourage academic and peer dialogue and facilitate self-reflection so that the student can measure his or her current performance and appreciate how to build upon it. (Nortcliffe & Middleton 2011 p283)

As stated previously, the use of audio feedback is not a panacea for all the perceived and oftenreported ills of assessment and feedback. Much of the research outlined in this paper suggests that focussing on the medium of feedback, i.e. written versus audio media, is not the best way, or only way, of developing assessment and feedback practice so that it is more beneficial to the student. It may well be that using audio feedback is quicker for some tutors, though this is not the author's experience – the most time consuming aspects of feedback are reading or viewing student submissions, deciding upon how they address the assessment criteria, identifying positive aspects and issues that needs improvement, then deciding how to 'wrap this up' in a form that is understandable and will both support and challenge the student, and can be followed up in some sort of dialogue. Generating the feedback itself is a more mechanical process that may be completed more quickly by the use of audio recordings or by speech-to-text software which is freely available on most platforms.

Tutors need to decide upon a format (audio recording, written feedback sheets, annotated scripts, etc.) that suits their educational objectives and student preferences, but more importantly we need to create a space for dialogue between staff and students that will encourage students to engage with and build upon the feedback they have received.

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