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In Memoriam Alex Moon (1970 - 2010), the founding editor of the journal.

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# Using an Old Technology in a New Way or Using a New Technology in an Old Way? Exploring the Use of Audio Feedback Post-Teaching Observation

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## Abstract

The aim of this project is to investigate the student experience and to explore the characteristics of audio feedback given to students. Our objectives were to gain a greater understanding of the issues surrounding the use of audio feedback in higher education and whether new technology might provide additional benefits and offer exemplars of best practice in audio feedback. Data were obtained via short questionnaires and individual interviews which allowed for more in-depth exploration on the issues involved.

**Keywords:** audio feedback, peer teaching observation, professional development, Postgraduate Certificate in Higher Education

## Introduction

This research focused on a unique and interesting population which was academic staff undertaking a postgraduate certificate in higher education. These individuals walk a parallel path in that they have the experience of being students and lecturers simultaneously. The aim was to explore their experience of receiving audio feedback following teaching observation and whether these experiences influenced their willingness to consider giving audio feedback to their own students.

The Postgraduate Certificate in Higher Education (PG Cert HE) at Middlesex University is intended to help academic staff and those supporting learning to develop the necessary skills and knowledge to provide an effective and appropriate learning environment for their undergraduate and postgraduate students. The PG Cert HE is a year in duration and a contractual obligation for all academic staff. It is committed to promoting best pedagogical practice, tailored to the personal and professional needs of participants, and relevant to their subject area.

A significant component of the assessment strategy for the PG Cert (HE) is teaching observations and the programme team make it a priority to facilitate the development of competent, confident and reflective practitioners. This is done by placing a great deal of emphasis on the supportive and constructive nature of the observer's feedback and the self-assessment skills of the observed.

PG Cert students are required to invite the programme leader to observe their choice of teaching session and the session is preceded by a pre-observation discussion. Gosling & Mason O'Conner (2009) offer a collection of case studies which look at the introduction of peer observation of teaching in six UK universities. What is particularly progressive about these case studies is that they capture a broader view of what is meant by teaching not allowing it to be limited to traditional approaches such as lectures or seminar setting but to a wider range of activities. This choice is reflected in what our PG Cert HE programme participants ask to have observed which might include workshops, laboratory sessions, studio sessions, clinical teaching and online teaching.

## **The study**

The aim of this research was to investigate the student experience and to explore the characteristics of audio feedback given to students. Our objectives were to gain a greater understanding of the issues surrounding the use of audio feedback in higher education assessment and offer exemplars of best practice in for teaching observation feedback.

Between 2009 and 2011 the programme team explored the potential of audio feedback. The research explored the principles of effective feedback together with the experience of receiving audio feedback post teaching observation. It also explored audio feedback as a vehicle for enhancing the reflective process in a way that the written word does not. We are defining audio feedback as providing an electronically recorded verbal feedback that is sent by email to students.

## **Relevant literature**

UK National Student Survey results (NSS) reveal that students, both nationally and locally, were dissatisfied with the quality, quantity and timeliness of their feedback. McCann and Saunders (2005) argue that effective teaching embraces technology in a way that enhances the learning environment. This claim is supported by the authors of this study, who also acknowledge the need for continual review and evaluation of any technologies used. It was with this in mind that we sought to discover what might inform our approach to audio feedback.

Rotherham (2008) led a successful project at one UK university where groups of students were provided with audio feedback on their assessment. The results suggested that individualized audio feedback was both more efficient and effective than written feedback, opening up a debate about the power of the spoken word and its potential for greater student engagement. During a second phase of the study three other institutions joined in contributing results involving 1,200 students ranging from first year undergraduates to doctoral students across a range of subject disciplines. Audio feedback proved popular amongst the majority of students who commented on the richness of audio feedback, how it provided more detail and a more direct, personal address. Lecturers reported on how it allowed for the expansion of vocabulary, quantity of feedback and saved them time.

Rotherham (2008) was quick to point out that audio feedback is not a panacea for all problems and needs to be carefully planned, implemented and given a sufficient period of time after which it is reviewed from the perspectives of all stakeholders.

Lunt and Curran (2010) compared the benefits of using audio feedback with written feedback for 26 students using an online survey. One overwhelming benefit appeared to be the ease by which audio feedback might be accessed with students able to receive it by email or via the virtual learning environment (VLE). Students were ten times more likely to download audio files than to come to collect written feedback from campus. Other practical advantages included the students not having to decipher poor handwriting and audio feedback not being lost. As noted in Rotherham (2008) lecturers found that audio feedback was faster than written or typed feedback which offered a welcome solution for those struggling with increasing student numbers.

King et al (2008) investigated the potential of audio feedback for undergraduate social sciences students. Although the majority of students preferred this approach, the authors agreed that there was as yet limited evidence to suggest that audio feedback led to better understanding and led to improved performance in future assessments. This last point is an important one, as much of the literature tended to focus on feelings and attitudes as well as practical aspects of delivering the feedback, rather than providing convincing evidence of it improving future grades. Importantly, and at odds with previous studies, their findings did not reveal that there was a significant saving of time for lecturers and in fact the reverse was true. They also revealed a self-consciousness felt by some lecturers when recording feedback, a sense of discomfort when hearing their own voice along with a heightened sense of vulnerability.

An American study by Ice et al (2007) found that a perception existed that lecturers who gave audio feedback cared more thus implying that the affective domain is important in learning and if addressed will increase motivation and confidence. Nuances of meaning could be conveyed better by the spoken than written word, content likely to be remembered while perception of instructor 'caring' and involvement were key to the positivity of the overall experience. The study looked at the experiences of students on online courses and how audio feedback might help develop a cohort identity and sense of a learning community. Unlike other studies Ice et al (2007) did manage to show through quantitative data and the use of a control group that the platform by which feedback was given was likely to have more impact on student assessment outcomes.

King et al (2008) describe staff finding the process of recording and editing difficult with no quiet place to record, hating hearing their own voice. They found Mp3 files not necessarily easier to edit, rewind, record over etc, so not necessarily less time-consuming leading to questions about training for staff.

The goal of the literature review had been to review case studies where audio feedback had been introduced and discover what the outcomes had been. Our particular interest lay in instances where audio feedback had been given to academic staff on their professional practice.

It appeared that a consensus did not always exist and that the majority of the literature referred to written assessment. We could discover nothing on the use of audio feedback for teaching observation of academic staff within a higher education context. The majority of the existing literature compared the use of audio feedback with that of written feedback while also considering how new technologies might support better feedback practices. We could discover nothing on the use of audio

feedback for teaching observation of academic staff within a higher education context.

## Methodology

Our project explored the experience of students who received audio feedback and the characteristics of audio feedback given to students.

Observations last between one to two hours and then post observation the session is discussed with the observer providing immediate oral feedback on their session. This discussion is followed by a lengthy written report which regularly takes several hours to produce.

The catalyst for this change of practice came from a desire to save time while also seeking to explore alternative approaches to giving feedback through the use of technology.

Following the teaching observation and ensuing discussion the audio feedback was recorded and made available to the participant within an average of 2-4 days. This 15-20 minutes of audio feedback sought to capture both the observer's feedback and the discussion that took place between observer and observee. A brief written report was given to the observee immediately after the observation which was referred to in the audio feedback.

The feedback was initially recorded using Garageband on a laptop. This is a software available for Macs that allows for the recording and editing of audio files. An alternative free software called Audacity (available for PCs too) was also tried, but ultimately Garageband was adopted as it had a more user friendly interface. As the project progressed a different approach to recording feedback was adopted. A different software called AudioHijack Pro was used to record audio via Skype. This method meant that the authors did not have to share the same physical space or struggle to find a quiet room on for the recording and could record the feedback from home or at a distance.

The feedback was made available to participants via the Virtual Learning Environment (VLE). It was initially thought that the size of resulting audio files would be too large to email to students and therefore uploading to the VLE seemed a practical solution. Confidentiality and anonymity was maintained by ensuring that feedback could only be accessed by that particular individual.

The feedback was provided in a standard mp3 file format and could be either streamed or downloaded to the participants computer. Two participants had problems downloading them, but could listen to feedback streamed over the internet. These participants were emailed the files separately as well.

The authors focused on five salient questions which relate to the aim of the research.

- What do you think were the advantages of receiving your feedback this way?
- What do you think were the challenges of receiving your feedback this way?
- How do you think audio feedback compares with written feedback?
- Have your opinions about receiving audio feedback changed during the module? If so, how?
- Would you consider giving audio feedback to your students? (introduced in stage 2)

As the study aims to explore perceptions and views, an exploratory approach has been employed using multiple data sources and mixed methods of data analysis. (Cohen et al 2000) Participants' views were collected via an online questionnaire and semi-structured interviews were conducted to enable a more in-depth understanding of their views. Participation was voluntary and all contributions have been rendered anonymous to protect the identity of the individual.

The interviews were transcribed and were analysed using 'open coding'. Each participant was asked a similar set of questions based on the research questions to help define the major categories of the analysis, which were further refined into subcategories. As a result of this analysis several themes emerged that provide a basis for the discussion in the following sections.

## **The results of stage one**

The first stage took place between September 2008 and September 2009 with thirteen participants provided with audio feedback. All stage one participants were academic staff from a range of schools and subject disciplines undertaking the PG Cert HE.

The researchers sought to capture the views of those involved. The analysis of data gained from questionnaire and interviews leading to an identification of the main themes which is summarized below.

**Meaning:** All the staff agreed that audio feedback allows for nuances of meaning to be conveyed (for example, highlighting the important issues through tone of voice) thus giving it an advantage over written feedback.

**Flexibility:** Audio offers the possibility of listening to it anytime (for example, at home, in the evening)

**Longevity:** Audio files are regarded as having better storage potential than paper and offering opportunities to listen to over and over again.

**More in-depth feedback experience:** Participants could and often did listen to it again, pause and think about what was said and take notes.

**Engagement:** Good quality of the audio recording which made it easy to listen to as this rendered the voice clear and audible. Individual and personalized feedback resulted in more intimate person to person communication. The dynamic of human voice brought an extra layer to the communication and many participants responded to this very strongly.

**Details:** More detailed feedback than would be given in written format. Participants were more able to remember the details of the feedback and reported thinking about the guidance and ensuing discussion as they carried on with their professional practice.

**Ensuring deeper reflection:** a succinct and precise chronological narration re-created the experience which made participants evaluate and re-think how they give feedback to their own students

**Continuing professional development:** Some participants would have liked feedback in a printable format to be able to insert in their paper portfolios. This highlighted the dual purpose participants perceived: feedback to improve their

current practice and evidence for their professional development folders, teaching fellow applications and for promotion which still ask for hard copies of feedback.

**Timeliness:** some participants would have liked quicker access to the audio feedback after the observation as in a few situations a delay of over a week occurred between the teaching observation and receiving the feedback. For some of the participants finding a quiet time and space to listen without interruption was challenging leading to a further delay in listening to the feedback.

## **The results of stage two**

The project entered a second stage in September 2009 and January 2011 with data obtained from a further 17 participants via online questionnaires and individual interviews which allowed for more in-depth exploration of students' perceptions on receiving audio feedback.

The second stage sought to offer a more in-depth understanding of the issues by asking more questions which were of a more detailed nature. Importantly, it sought to discover whether the experience of receiving audio feedback themselves might lead participants to consider giving audio feedback to their students.

The responses allowed us to collate data which then led to a series of emergent themes which are then supported with evidence from the participants. Short and edited comments exemplify and refer where necessary to existing literature. We accept the interpretative nature of the research but have also sought to include participants who stand out in contrast to other participants. These are summarized below and reflect recurring themes.

Many of the themes from stage one were repeated and frequently expanded on and there were also nuances of difference.

## **The Advantages of Receiving Audio Feedback**

*“Hearing a clear, audible voice with an engaging tone made the difference ....”*

This academic offers testimony which supports the claim made by Fitzgerald (2011) that the affective domain is as critical as the cognitive domain when it comes to receiving feedback. This is illustrated movingly by the following individual who talks about the confidence it has given her :

*“...was able to listen to it when I feel discouraged about aspects of my teaching ...”*

Conveying this powerful sense of it being something 'for me and about me' which is vital when working within an environment where positive, affirming feedback for academics may be in short supply.

The importance of tone and audibility was seen as being of particular significance for international students or for those whom English was not their first language as illustrated by this next quote.

*“Hearing someone say what they think conveys much greater depth and nuances which written feedback –especially when confined by a pro-forma does not provide”.*

Rotherham (2008) discovered from the first person accounts given by students that audio feedback provides improved quality and quantity of feedback which was replicated in this research:

*“...the feedback seemed more detailed than what I received for other teaching observations”.*

This claim is made more plausible when King et al (2008) informs us an average of five minutes of audio feedback provides approximately 500 words of text. Audio feedback for these academics on their teaching practice averaged between 15-20 minutes so between 1500-2000 words.

A concern existing amongst those Ice et al (2007) and King et al (2008) interviewed. They had researched the benefits of audio feedback that as with written feedback more evidence needed to be found which linked audio feedback to improved performance and understanding. It was gratifying therefore to be told :

*“ It was more personal than written feedback .... I was able to utilize this feedback in my teaching soon after the event”.*

*“ .....it made it also much clearer and easier to follow and understand”.*

*“ ..chance to listen several times and different information to sink in each time- also sometimes easier to take information given verbally- something to do with human connection ..”*

## **The Disadvantages of Receiving Audio Feedback**

Participants in the study were encouraged to be honest and it is important to hear this participant offer an alternative view:

*“I felt the feedback was, if anything, a little too in depth at times. By that I mean it was longer than I expected, not that it was confusing or impenetrable .....it just seemed to take a long time to get to the salient bit! ....”*

Record keeping and how audio feedback might be incorporated within the summative assessment which was a portfolio of evidence exercised several participants who felt this had not been made clear:

*“ ..I was also a little confused about how to incorporate the audio feedback into my portfolio of evidence”.*

While there were those who wanted to take notes with others clearly missing having the feedback in a written form seeing that more traditional medium as possibly more authentic and acceptable:

*“Occasionally it was difficult to make notes. However, it is always possible to replay ...”*

*“I think I have to make notes on the audio feedback I received ...”*

*“ Having to type it up if you want a permanent record or to associate it with a portfolio, for example”.*

Participants described the challenge of adjusting to a new approach to receiving feedback and initial reservations they had:

*“Would I be engaged ? Would my learning be stimulated by this new experience ? “*

*“Getting used to receiving feedback via voice takes a while to get used to ...”*

These reservations were not discussed to the same extent in the literature which may suggest a greater reluctance on the behalf of some of these academics to embrace new assessment and feedback approaches.

### **How Does Audio Feedback Compare with Written Feedback?**

Continuing with some of the previous themes it was interesting that some participants still wanted written feedback, not necessarily instead of audio feedback but as well which somewhat defeated our original intention to save time :

*“I would also like to receive written feedback. I think this uses a different part of the brain and so I probably retain different information...”*

*“It feels like personal verbal feedback without the opportunity to ask questions, I value written feedback just as much though”.*

*“Ideally I like to have it in conjunction with written feedback. I would not want to dispense with written feedback, personally”.*

Merry and Ormond (2007) identify the need to consider carefully the choice of technology used to make audio feedback available to students. The majority of institutions noted in the literature have integrated feedback with institutional virtual learning environments with a few using email. Participants in this study reported that their institution’s VLE was occasionally slow and cumbersome making the audio feedback sometimes difficult and time consuming to access and refer to. Many said they preferred the initial point of access to be email as it was quicker and involved less ‘clicks’ of the mouse.

The authors picked up on the perception by some participants that the feedback could only be accessed by a computer and was necessarily a complicated process and noted the need for further training and instruction in the future. We acknowledge that when working with academics who are simultaneously students we need to acknowledge a range of abilities and experiences often relating to age and preference.

There was a telling comment from a participant who stated the need for:

*“...the speaker to ‘organize’ the spoken word without it sounding like a piece of writing being read out (which may defeat the purpose). Sounding friendly and professional at the same time ....”.*

This begs the question as to whether all academics can become effective at delivering audio feedback, how much training and preparation needs to be made available and who will carry out that task.

### **To What Extent Has the Experience of Receiving Audio Feedback Changed Opinion?**

Personal accounts reveal how experiencing something as a student can influence individual academic practice :

*"I hadn't received audio feedback before but am very open to it now and have started using it on my module (albeit it in a different process)"*

*"I was not really familiar with audio feedback until I received this one ...and I now value audio feedback as much as I do any other feedback ..."*

*"Yes , before the module my knowledge of audio feedback was minimal and because of that there was some anxiety on my behalf about its use, however having been exposed to it during this module I feel it is an excellent way of giving feedback".*

## **Would You Consider Giving Audio Feedback to Your Students?**

Fifteen participants stated that they would and two stated they would not due to having large cohorts. Reasons for not doing so included:

*" There are just too many students and I can't find the time to invest in setting the system up and run it on my 2 days a week...."*

Those who were happy to give it a go indicated that the context would need to be right:

*" I would consider using audio feedback for presentations or group work. I do not think it would be useful for the majority of formative assignments...."*

A continuing theme perhaps not so prevalent in the literature but which reoccurred in this research was the need for training and technical support, should academics wish to try it themselves :

*" .. needs some practicing – very rarely get it all right on first take ...."*

*" I think I would need to get confident with the technology ... it might appeal to different students".*

Finally, this concept of audio feedback being more appropriate for some students as compared to others is not a new one. Students with visual impairment and with dyslexia would clearly benefit while others with hearing impairments would not.

## **Conclusion**

We would like to propose a way forward that is progressive, continues to embrace developing technologies, stays true to best feedback practices and looks to improve the experience for all concerned. Initially focusing on traditional teaching settings such as lectures and seminar, the scope of teaching observations has now expanded to reflect modern delivery systems of teaching, which include online teaching, tutorials, student presentations, laboratories, studio and workshops. We also intend to move away from the concept of a single observable event with our dialogue focusing on entire modules and programmes and how they link with chosen content, assessment strategies and content.

The crucial thing about this research was that it allowed the teaching observation experience to provide the catalyst for us as practitioner researchers and the study participants to enter into a dialogue about the role of feedback and support within the context of the professional development of academics in higher education. The findings contributed to not only a review of the way teaching observations are

conducted within our organization but also provide recommendations and suggestions for new directions for educational development within the sector.

A moment of clarity came for the researchers when reviewing the findings; the realization came that for true equality to occur the interaction needed to become less of a monologue and more of a dialogue. This has led to a view that our next logical step is to record the discussion between observer and observee so both voices are heard as partners.

In the time since embarking upon this project technologies supporting learning have evolved further with platforms which at one time seemed cutting edge, now less so. Skype, smart phones and iPads now offer us other and more advanced technological platforms for recording feedback and accompanying dialogues post observation in real time and following the observations. Software packages offer the possibility of videoing teaching events simply and with minimal equipment as they occur with both parties then able to sit down after and review practice together. Our future plans include several of these more sophisticated and collegial approaches.

Rarely do educational developers write about how they as individuals through their personality and individual characteristics influence their peers and bring changes in institutions which were initially resistant. That is why we were delighted to read an account by Rotherham (2008) which briefly addresses the question 'What is it about me that has made this project successful?'. We recommend that this question is explored in much greater detail in forthcoming research investigating audio or video feedback.

Academic colleagues within higher education institutions face particular challenges which include increasing student numbers, a more diverse student population, variable assessment regimes and numbers of postgraduate students soon to outnumber undergraduate students. What we teach cannot be divorced from how we teach and yet in our experience academics report that they rarely receive constructive and meaningful feedback on their teaching practices. Although this research focuses on the potential of audio feedback it is also about the place of teaching observation within higher education and the need for a more empowering approach.

As educational developers discussing professional practice and giving feedback to others remains the most enjoyable part of our working day, reminding us why we still believe in the transformational, life-affirming nature of meaningful and constructive feedback.

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