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# USING SCREEN CAPTURE SOFTWARE FOR STUDENT FEEDBACK: TOWARDS A METHODOLOGY

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## ABSTRACT

In the wake of negative responses by students regarding the quality and helpfulness of feedback tutors have begun to explore ways in which new technologies can improve feedback. This paper reviews the literature in the area of student feedback and provides some initial results into trials conducted using screen capture software for student feedback. The final part of the paper discusses some of the procedural and practical issues which need to be addressed in developing a clear methodology for this type of feedback.

## KEYWORDS

Screen capture software; feedback; methodology; ICT; learners; multimodal

## 1. INTRODUCTION

Since UK National Student Surveys were initiated in 2005 there has been a consistently negative response regarding the quality and helpfulness of feedback. Responding to large numbers of assignments individually and at length is a time-consuming and sometimes apparently thankless task which few university teachers claim to enjoy. Nevertheless many are keen to improve the student experience, and reportedly the Higher Education Academy's assessment team "gets more requests for help to improve the system of feedback in universities than on any other issue" (Tahir 2008). Nicol (2008) states that for feedback to be successful "students must be able to decode it, internalise it and use it to make judgments about their work" and argues that too often traditional feedback techniques fail in at least one of these respects.

Student feedback at Coventry and Universities in general has traditionally been in written form although recently some work has been undertaken to move towards electronic feedback as students are now always required to submit their work in this way, often through relevant VLEs. In response to this, tutors have begun to explore ways in which new technologies can enhance feedback. There is evidence that technology-enhanced and multimodal feedback can be both more effective and more acceptable to students.

Screen capture software enables tutors to record their on-screen actions and their spoken comments while creating feedback. The resulting files can be distributed to individual learners, for example through a VLE such as Blackboard, and can be played back by the students as video with a running commentary as various sections of their writing are highlighted, amended and discussed. Small scale trials at Coventry and at Westminster (Stannard 2007) suggest that many students welcome this kind of multimodal feedback. However, trials have not yet been sufficiently extensive to ascertain whether all learners respond equally well, irrespective of individual learning style or other factors. Other questions concern the acceptability of the approach to tutors, and the amount of training and additional time expenditure it might entail. Though feedback recordings are easy to make, some investment in tutor training would be necessary before the approach could be implemented as a regular course feature, and the success of the approach would also rely on a high level of adoption among tutors.

## 2. MULTIMODAL FEEDBACK

### 2.1 Background

Research into feedback delivery in the field of second and foreign language writing development suggests that students only make use of a small number of the corrections they receive (Cohen 1987, Ferris 1997), and often do not understand their tutors' advice, because it is too vague, poorly expressed, and even, sometimes, illegible (Sommers 1982, Zamel 1985, Fregeau 1999). Corder (1981) has also found that teachers often misinterpret their students' intentions when correcting work, leading to further confusion on the part of the students.

At present, nearly all corrections of British university students' written work are provided in written form (Sugita 2006), and most research has focused on students' reactions to tutors' written comments (see, for example, articles in the collection edited by Hyland and Hyland, 2006a). Recently, however, some alternatives to this form of feedback have been proposed. Gardner (2004), for example, has investigated students' and tutors' reactions to taped oral feedback, and Ware and Warschauer (2006) have studied the effects of feedback in a range of technology-mediated contexts. Both these approaches were found to have considerable potential in terms of their power to motivate and engage student writers, but Stannard (2006, 2007) suggests the use of screen capture technologies as an even more promising approach, combining the benefits of oral and online delivery whilst offering additional visual elements to enhance communication, in accordance with the dual-processing instructional methods advocated by Paivio (1986) and Clark & Mayer (2003).

Although there has not been a great deal of empirical research to demonstrate the value of video feedback, early indications suggest that it has the capability to provide more extensive information in a more palatable way, without greater expenditure of time. Questions that have been addressed include the acceptability of the approach to students (see below), the quality of video and multimodal feedback and the attitude of staff to video and multimodal approaches.

In studies addressing acceptability, students have been found to rate video feedback more highly than written feedback (Stannard, 2006, 2007; McLaughlin et al, 2007).

Stannard (2007) found that multimodal feedback tended to be more extensive than standard written feedback supplied by the same tutor. A two minute recording contained about 400 words, the equivalent of a whole A4 sheet of writing. Multimodal feedback is also denser because it contains both verbal and non-verbal information. Mayer (2001) argues that a combination of animation and verbal commentary is the instructional format which students find most memorable. The use of speech, graphics and the written word seems to cater to the widest variety of learning styles, reaching those with a preference for auditory and visual learning who are less likely to benefit from standard single mode written feedback.

McLaughlin et al (2007) also addressed the question of staff attitude, and found that responses were divided: only half of markers "were fluent and found the method natural and satisfying." However, their findings were relevant mainly to an automatic mechanism for integrating the marking and feedback processes.

### 2.2 Findings

A small-scale pilot study was undertaken with two groups of learners who were provided with a short video file of feedback comments about their coursework in addition to traditional written comments on their scripts. Students were then asked for their views on the feedback which were extremely positive (see examples below).

- Really good! It is a perfect tool to give students a personal feedback of their work. Only yesterday we talked about the comments written on coversheets of courseworks and we came to the agreement that in many cases these comments are really short and often impossible to read. A teacher working with this software however shows that he really has spent some time while looking at the students work.

- It's very useful because usually you might look not as close at your mistakes as when someone goes through the text with you giving comments about what you've written and how it could be better. Moreover sometimes you see corrections in your text but might not know what is really meant.
- Although it is something completely new to me and I have to get used to it, I think that it is a good supplement to the actual paper coursework we get back, because you can listen to explanations like "It is uncommon to use the word X in British English, we would rather use Y." which help you to understand the corrections on the paper version of the coursework better.
- I found it helpful to have audio and visual feedback on my assessment. It means I can understand better which parts of the translation were inaccurate and where I could have improved on it. I would not mind waiting a little longer for this type of feedback as it gives me more confidence going into future assessments when I have extra feedback.
- I prefer it to the traditional one, as I feel more comfortable and gives you more confidence while at the same time the lecturer shows you what you should do in a different way to improve the essay. Sometimes in the traditional-written feedback you can mistake some comments and some of the corrections might not be clear. Otherwise in this system everything is explained and showed while the professor is speaking. Overall, I think it is a very useful way of improving the way we write, through explanations.
- I find this a neat idea. And it is very personal. Rather than talking to everybody individually it is time-saving. Also, nobody else gets to hear the feedback. It is nicer to hear feedback than to read feedback and easier to follow because I don't always have to turn pages back and forth.

Discussions between tutors have revealed that there are various methods that tutors can adopt to produce the video feedback and to deliver it to the students and this may vary from institution to institution depending on staff ICT awareness and confidence, and how prepared tutors are to read and mark essays on-screen rather than in the traditional way.

The first production method is entirely automated. The tutor receives a digital copy of the student's coursework and then corrects the script using the "track changes" feature within Microsoft Word, recording their voice and annotating the script as they work their way through, and either writing original text or copying and pasting in pre-prepared standard error correction sentences or paragraphs.

The second production method involves a little more work by the tutor and requires the student to submit a hard-copy of the coursework, to be marked in the traditional way. The tutor then opens the digital version of the script and highlights the parts of the text that the tutor wishes to talk about, this time using the highlighting feature in Microsoft Word and in doing so creates a loose script to follow.

The delivery of the finished files also revealed differing approaches partly depending on file size and tutor preferences. One method is that the tutor simply e-mails the file back to the student but if the file sizes are too large and institutional attachment size restrictions exist, this could affect the performance of a University computer infrastructure, particularly if large numbers are involved. To avoid this problem, and bypass the e-mail system, the file can also be delivered via a VLE such as Blackboard or Moodle, uploading the files into a folder and selectively releasing each student's file. This may not be possible on other less sophisticated VLEs. Other options include burning the files to DVD or copying them to memory sticks.

Other practical factors to consider include the potential extra time it takes to mark scripts in this way although the finished product is richer and denser in information than traditional forms. For staff to produce video files it is imperative that they have a quiet environment free from interruptions and background noise which could prove to be problematic, especially for hourly-paid staff, who may not have their own office. Due to time constraints it is also important that tutors do not strive to produce perfect videos free of hesitation and excessive pondering. The tool can also be used in a distance learning context or to provide general feedback to a class of students.

### 3. CONCLUSION

Screen capture software has emerged as a product which tutors can utilize to provide video feedback to learners in all disciplines. Initial studies have shown that this form of feedback is well received by students and there is some evidence to suggest that learners value this type of feedback and that they find it clearer

than traditional forms. Further research needs to be carried out to establish a clear methodology to overcome some of the procedural and practical problems that have so far arisen.

We will be carrying out a wider survey of student and staff attitudes to this type of feedback and work towards establishing a methodology.

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