SCREEN CAPTURE SOFTWARE FOR FEEDBACK IN LANGUAGE EDUCATION

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ABSTRACT

This paper looks at an innovative way of providing feedback for students on written assignments. Screen capture software allows students to record all screen activity on their computer screen as if they had a video camera pointed at it. If a microphone is attached to computers it can also record students' voices. The result is that students' work can be opened onto a computer screen, the screen capture software can be turned on and the teacher can begin to correct the work on the screen, highlighting mistakes, underlining problems and writing comments. The resulting video can then be sent back to the students, resulting in a 'live' recording of the tutor correcting the students work. The student can play back the video and listen and watch as the tutor goes through their written assignments.

INTRODUCTION

Screen capture software is nothing new. It is usually used for teaching computer software. Since the screen recorder software simply records the screen of a computer it can be used to do demonstrations very simply. Imagine for example a user wanted to know how to reduce the size of an image using Adobe Photoshop. Instead of reading through notes or the help page, the tutor could simply make a video where s/he records the demonstration using Photoshop and then send the student the resulting video. The attraction is obvious. Students can both hear and see what their tutor is doing resulting in a form of tuition which appeals to a variety of learning styles and is media rich. In addition, students can play, pause and repeat the video as often as they like. One well known site that offers many of these types of training videos for ELT teachers is <www.teachertrainingvideos.com>.

However using the technology for feedback is a very recent development. In this study a small group of students was used on a "feasibility test" to see how technically simple the idea might be as well as gauging the student's reaction through questionnaires and interviews. Feedback from students has been very positive but probably more interesting are the insights that have been revealed through the research and possible directions in which the idea could be developed further.

A REVIEW OF THE LITERATURE

In the field of second and foreign languages there is a wealth of studies focusing on student's reactions to written comments (a good example being Hyland and Hyland 2006). Alternatives to written feedback are

less common. Gardner (2004) investigated student reactions to taped oral feed and Ware and Warschauer have focused on a range of technology mediated tools. Both studies have highlighted the potential of these approaches to motivate and engage students in the feedback process. Stannard (2006, 2007), however, 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.

Research in the area of ELT has shown that students make use of only a small number of the corrections that they receive on written work (Cohen, 1987; Ferris, 1997). This may be due to the fact that students often don't understand the corrections. The information is too vague, not clearly expressed or in some cases unreadable (Zamel, 1985; Fregeau, 1999). Research by Corder (1981) has also shown that teachers often misinterpret the intentions of their students when correcting their students' work and this leads to confusion on the part of the student. Video feedback offers a chance for greater clarity of the corrections since information can be expressed verbally as well as visually (Stannard 2007). Early tests have shown that feedback is much more extensive too. A 2 minute video feedback recording could provide the equivalent of about 400 written words or a whole sheet of A4 feedback (depending of course on the size of the writing of the tutor).

Nearly all correction in ELT is still in written form (Sugita 2006), which appeals to only a limited number of learning styles. Video feedback offers a feedback mechanism that caters to a greater variety of learning styles as feedback is both visual and oral. Moreover, work by Mayer (2001) has demonstrated that a combination of animation and commentary is the most memorable way for information to be conveyed to students. Video feedback replicates this 'input'

method. Students can watch and listen as the tutor corrects their work, underling, circling, highlighting errors while at the same time talking expanding on the corrections.

EARLY RESEARCH

At the University of Westminster, the first test of the software was with 9 Chinese students on a English for Academic purposes course. This was followed by a second group of 15 students on a completely different type of course in multimedia, the contrast was very interesting as in the first group surface errors were corrected in the students written work i.e. grammar, spelling. In the second experiment the focus was on the student's ideas.

Study one

The students were shown in class an example of video feedback. It was explained to students that they would not be receiving traditional forms of feedback but would be sent a video where they could hear and watch the teacher actually correcting their paper. They were asked to re-draft their essays based on the videos.

Students emailed their essay to the tutor, who opened them up onto the screen and began correcting them. Each video then had to be compressed and then emailed back to the student.

Technically this is quite easy. However though correcting the work is quite quick (especially since you can talk instead of write or type), the compression stage takes up a lot of time. All students except one had no problems with the videos (one student didn't have a computer at home)

The tutor found the actual marking quite easy. However unpublished work at Edinburgh University has recently found that this depended a lot on how confident the tutor was with the technology. The tutor in this example was very proficient.

It is important to prepare otherwise there was a tendency to have large gaps of silence and inactivity while the tutor searches for mistakes to correct. It is vital to go through the paper first and highlight the points and errors that are be elaborated on.

It is possible to make the correction very visually rich as well as offering oral input. Remember that the software only records the screen of the computer, so if the tutor uses the bold, highlight or underline tools from the word processor, these all come out in the video too.

Compressing the videos after correcting is time consuming. However this can be overcome by batch compressing all the videos at the end. So the tutor can correct all the written work and then compress all the videos in one go. Technically this does require some additional knowledge.

Feedback from students

Students were given the following questionnaire and then an informal group discussion took place.

1. What advantages to video feedback do you think there are?

2. What disadvantage to video feedback do you think there are?

3. Can you rate how good you think video feedback is:

- Not useful at all
- Acceptable but no better than using traditional approaches
- A very good way of providing feedback
- An excellent way of providing feedback

4. Did you find the video feedback easy to follow? Would you say it is easier to follow the video feedback than follow the corrections when they are written on your essays?

5. If you had to choose. Would you prefer video feedback or traditional forms of feedback?

6. Can you explain how you used the feedback? What did you do with the videos?

7. Are there any other comments you would like to make?

Overall students like the video feedback more than traditional approaches. This particular group were more positive than those in the second test. All the students thought it was either very good or excellent.

Asked why they liked it and more than half said they liked the fact it was both visual and oral.

7 of the students thought it was easier to follow than traditional approaches. Students did express concerns about longer written pieces.

Nearly all the students commented that they felt they had received more information. In fact they had. Work on the commentary has shown that about 200 words can be covered in one minute, so 2 minutes of video feedback would probably be about a whole page of A4 written feedback based on the tutors writing size and words per line.

Students thought it would be more memorable. This was a comment made in the interviews and there is no evidence to suggest this is actually true

Some said they would listen to it before writing their next essay (a comment that has been very frequently made in subsequent studies).

Some of the students said they had listened to the video four or five times before re-drafting their essays.

All students said they had made use of the play and pause controls.

Students requested that as well as sending the video, the actual essay paper with all the markings and highlights should also be sent back to the student. Some students actually felt there was too much information. This only came out in the interviews but had not been pointed out in the questionnaires.

Study two

The second research looked at a different way of using the technology. Instead of providing individual feedback to each student only one video was given to the students. This was a general classroom feedback video which covered the key points that had come up after marking student presentations. The tutor marked the work in the traditional way, then opened up a word processor and wrote down all the key general class problems, then turned on the screen recorder software and began to go over the key points and elaborating on them. Students were then sent the video feedback. They received the general class feedback a few days before they were given back in their individual marks in the next lesson.

One point that emerged is that correcting ideas rather than grammar points in a language class seemed much more suited to the video feedback method. Correcting surface errors like punctuation and grammar take little more than a few comments. Typically in the recordings it might say 'You have made a spelling mistake here' or 'Don't forget this should be a capital'. However, when you correct ideas there is often a lot more to say. So the corrections in the second experiment, where ideas and thoughts were being developed made much greater use of the use of sound.

Students were given slightly different questions. The focus was on a number of areas:

1. How many times did you listen to the video?
2. What did you learn from the video?
3. Did you find the videos easy or hard to follow?
4. Did you think it was a good idea to get your classroom feedback video before you got your actual result? Can you explain why?
5. Have you any other comments to make?

Feedback from students covered a number of areas. Firstly, the students think it is great reference material. For example after giving presentations a

video was produced covering some of the student's errors when presenting. Students commented that next time they go to do a presentation they will use the video. They also liked the idea they could listen and review the videos at their own pace and in their own time, rather than have the teacher rush through overall comments at the start of a lecture. Second, many of the students had listened to the video several times.

Students commented that receiving the video before they got back their individual marks had lowered their expectations of their marks as when listening to the video they realized they had missed things out etc. Students again pointed out the benefits of being able to listen to the feedback.

Several other points from the tutor's perspectives also developed. There are no time problems. The tutor only has to produce 1 video and compress it but a lot of class time usually used reviewing student's work can be saved.

The tutor also has very useful reference material. So for example the next time a similar question is set by the tutor, s/he can play the feedback video from previous years and quickly remind himself/herself of some of the problems that had come up.

Not a single student questioned their marks. The effect of sending the students the class video feedback was that it lowered their expectations of their actual marks.

CONCLUSION

The initial work (Stannard, 2007) is being built on in several institutions, particularly in the UK. Edinburgh University is testing the idea for large scale feedback in biology classes and Coventry University is now looking at the ways to train tutors to use the technology.

This paper has outlined several approaches to the idea. One way is to give individual feedback to

students on their written papers. Though this was positively received by students but the numbers are too small to make compelling claims.

The more recent work where students only receive one video for the whole class (or one for each group) could overcomes many of the time problems created by the individual feedback. Feedback from students is positive and the benefits in time-saving are clear. More work on the following areas needs to be done. A few pointers for further study include:

1. Are there particular students with particular learning styles that prefer the video feedback?

2. Do students actually learn more/remember more of the errors pointed out to them using video feedback.

3. Is video feedback more suited to correcting ideas rather than the errors we normally correct in language teaching? Perhaps (Stannard 2007) original idea of using it to correct grammar and spelling mistakes is actually the least relevant scenario since many of the mistakes require little more than pointing out a spelling mistake or a grammar rule. It might actually be that video feedback works best when correcting ideas and concepts which require elaboration.

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