

Teaching and Learning via Technology: Digital Feedback

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Written formative feedback within most university courses has been proven to be insufficient in its scope and content, with time being a limited resource, resulting in written feedback often being unclear, vague, and confusing. However, feedback using screen capture videos can be more effective than written feedback, particularly for formative evaluations, creating beneficial synergy between learning activities and learning outcomes. Notwithstanding evidence, the consensus of many teachers is that written feedback is faster than video-feedback, so screen capture video is seldom used.

This paper makes two points: screen capture video enhances feedback quality and using feedback via screen capture video instead of written feedback is a superior method of formative evaluation, saving time and helping students reach learning outcomes; additionally, filming lectures with embedded PowerPoints and making them available to students can be important for formative feedback. These time-saving methods have been applied to two courses at *Malmö University*, i.e. “Basic English Grammar Skills for University” and “Basic English Writing and Presenting Skills for University.”

Key words: *context-based evaluation, digital formative feedback, problem based learning, screen capture video.*

Svenska:

Skriftlig formativ feedback inom de flesta universitetskurser har visat sig vara begränsad i dess omfattning och innehåll, med tiden en begränsad resurs, vilket resulterar i att skriftlig feedback ofta är oklar, vag och förvirrande. Återkoppling med hjälp av skärminspelningsvideor kan dock vara mer effektiv än skriftlig feedback, särskilt för formativa utvärderingar, vilket skapar fördelaktig synergier mellan inlärningsaktiviteter och inlärningsresultat. Trots bevis är samförståndet hos många lärare att skriftlig feedback är snabbare än video-feedback, så skärminspelningsvideor används sällan.

Denna uppsats gör två punkter: skärminspelningsvideor förbättrar återkopplingskvaliteten och att använda feedback via skärminspelningsvideor istället för skriftlig feedback är en överlägsen metod för formativ utvärdering, vilket sparar tid och hjälper eleverna att nå lärandemål; Dessutom kan filmföreläsningar med inbäddade powerpoints, som gör dem tillgängliga för studenter, vara viktigt för formativ feedback. Dessa tidsbesparande metoder har tillämpats på två kurser vid Malmö universitet, dvs. ”Basic English Grammar Skills for University” och ”Basic English Writing and Presenting Skills for University”.

Nyckelord: sammanhangsbaserad utvärdering, digital formativ feedback, problembaserat lärande, skärminspelningsvideor.

Introduction:

The following argument claims that the use of video screen capture enhances feedback and is a preferred form of formative evaluation in helping students reach the learning outcomes. Within most university courses, giving adequate written formative feedback has been proven to be limited in its scope and content, with time being the most limited resource (Crawford, 1992; Goldstein & Kohls, 2002; Zamel, 1985; Mathiesen, 2012), resulting in written feedback often being unclear, vague, and confusing (Chanock, 2000). However, literature and experience show that feedback using screen capture videos is more effective than written feedback (Ekinsmyth, 2010; Macgregor, Spiers & Taylor, 2011), particularly for formative-evaluations, creating beneficial synergy between learning activities and learning outcomes throughout the course. Notwithstanding the evidence, the consensus of many teachers is that written feedback is faster than video feedback, so screen capture video is seldom used. The use of screen capture video, as well as filming lectures, enhances feedback and is a superior method of formative evaluation in helping students reach the learning outcomes. Thus, this paper claims that time spent by teachers on learning screen capture video to give digital formative feedback on context-based writing and evaluation can be an important investment towards saving resources and helping students gain proficient skills in academic writing.

How to Give Feedback Effectively:

Firstly, it is abundantly clear that feedback in written form, whether formative or summative, is inadequate for students. “Too much description; not enough analysis” (Chanock, 2000, p. 97) is the most common comment given as feedback on student essay and is the comment that is most confusing for students, as they simply do not know what it means. The written comments of a tutor are too brief. However, as Chanock states, “It is difficult to write a comment that will convey anything to a student who does not already know what it means” (ibid., p. 96). While Chanock’s argument goes on to prove why this comment causes confusion, one thing becomes clear: no matter how the comment is meant or defined, it cannot be explained to the students in the limited time and space given for written feedback. Therefore, the deficiency of written feedback can either be overcome by taking a very long time to write a very long analysis of the students work, or it can be overcome by using screen capture video for feedback. This form of feedback allows the teacher to comment with more detail in a shorter amount of time, using a freer form of communicating than the strict formality of the written word. Oral feedback offers the flow of conversation without the restriction of academic writing.

Consequently, students experience screen capture video as more thorough and more personal formative feedback and summative assessment of their writing. The students feel seen and heard and feel that they do not disappear in the mass, primarily because of the detailed, specific comments on their individual writing that screen capture video feedback gives them. For example, “Students ... respond positively to audio feedback principally because it [is] easier to interpret than written feedback, [and is] more personal and more detailed” (Macgregor, Spiers, & Taylor, 2011, p. 41). According to Wolsey, “One important aspect of feedback is that it establishes a relationship between teacher and student, a factor which in and of itself promotes learning” (qtd. in Mathiesen, 2012, p. 99). Thus, students feel their teacher has reflected on their work more seriously and thus given richer, clearer feedback. Moreover, the students prefer screen capture video because they find the feedback much more thorough than written feedback: “The great advantage that screen capture has over written feedback is that screen capture gives a much clearer impression of what is being commented upon and assessed” (Mathiesen, 2012, p. 105). Another study claims that “Students in particular felt that audio feedback provided a much more detailed and richer account of the strengths and weaknesses of their work, and they felt that hearing feedback was

more effective and memorable than reading it” (Ekinsmyth, 2010, p. 77). This in turn motivates students to work harder and take the feedback seriously, and to reflect more on their work as a result: “audio feedback [invokes] perceptions that tutors ‘care’, a quality attributable to the personalized nature of feedback and the way in which this [invokes] improved student engagement with their learning” (ibid.). Thus, it is not only the audio and/or visual presence of the teacher in the feedback, but also the quality of the feedback itself that has the effect of the feedback feeling more personal. Moreover, teachers also feel closer to their students and are able to motivate them better.

Teachers Use of and Reactions to Screen Capture Video:

More importantly, teachers experience that the feedback is more time efficient and that they can give a lot more feedback in a shorter time: “Using audio approaches to capture greater feedback detail and to turn feedback around more quickly has been identified by many as a potential advantage of the approach” (Macgregor, Spiers, & Taylor, 2011, p. 41). Mathiesen (2012) claims that “Video feedback simplifies and increases the efficiency of responding to students’ work, as it allows the opportunity to achieve increased levels of precision and quality in the feedback process” (p. 97). Additionally, “a conservative estimate reveals that [screen capture video gives] *at least four times more* feedback than students would usually receive from written feedback” (emphasis added, Mathiesen, 2012, p. 107). Moreover, “the quality of feedback increases due to the fact that there is a high level of interaction between the commented text and the picture itself” (Mathiesen, 2012, p. 104). Therefore, if teachers tend to find that video and/or audio feedback saves time and increases quality, one has to wonder why many teachers who have never tried it claim that it takes more time. Clearly, research has proven that screen capture video saves time and resources for teachers.

Nonetheless, critique of screen capture video claims that the major challenge is that teachers are resistant to learning the new technology and taking the time required to learn the new skill:

Despite the possibilities [screen capture video] offers, a key problem might be persuading academic staff to use the method as this involves breaking through teachers’ established economies of practice. ... Not surprisingly, staff involved in this research were more cautious than students about the cost-benefits of audio feedback. (Ekinsmyth, 2010, p. 77)

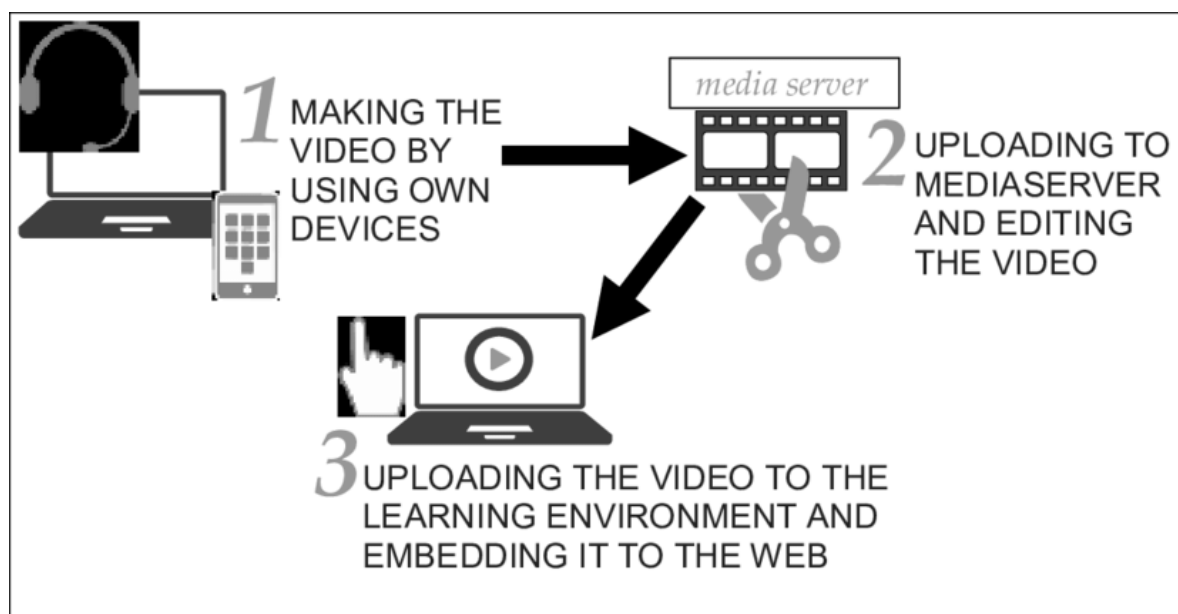
However, this critique is not grounded in experience and reality. Teachers who take the time to learn the new technology report greater benefits and that over the long run, it takes less time and fewer resources from the teaching staff:

The potential for time efficiencies in feedback delivery is often cited as a possible benefit and a potential solution to the lack of formative assessment at higher education, particularly as most exploratory research appears to indicate that students tend to be favorably disposed to receiving audio feedback. (Macgregor, Spiers, & Taylor, 2011, p. 40)

Also, “Teachers confirm that the extent of [video] feedback is increasing at the same time the level of work being done is decreasing” (Mathiesen, 2012, p. 107). In fact, screen capture video helps teachers to be clearer and more concise in their feedback: “Teachers have experienced that while on the one hand they save time, on the other hand the time frame of having only 5 minutes to make a recording poses a challenge to their being clear and ‘to the point’” (Mathiesen, 2012, p. 105). Thus, the benefits of using screen capture video vastly outweigh the time needed to learn the skill, as well as other benefits for improved feedback.

Personal Experience with Screen Capture Video

In the courses “Basic English Skills for University”¹, I have implemented a plan that uses screen capture video to give students both formative and summative evaluation. Each of the assignments is graded with *Microsoft Word*’s “Track Changes” function under the “review” tab. As I mark (formative feedback) or grade (summative feedback) the paper, I make changes to the student’s text and comment orally on what the student has written. The student both hears and sees what I am doing, as if it were a private tutorial. The screen capture videos of the papers that have passed are posted on the LMS (Learning Management System), Canvas, and students are assigned a learning activity to watch each other’s videos before writing their next essay. The diagram by Sointu et al. illustrates this process:



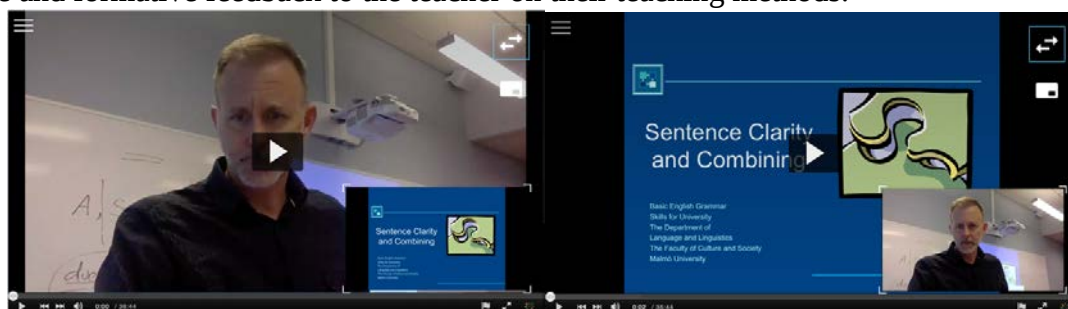
(Sointu et al., 2019, p. 6)

This process is not only important for the formative feedback for the students, but also for me as a teacher to make changes in my teaching. As Mathiesen (2012, p. 105) says, the formative feedback becomes clearer, focused, expressed neatly and without wasting words or time, as the teacher is forced only to give pertinent and relevant comments. Thus, if the teacher’s feedback is too long and vague, the process of refining their oral feedback has a positive effect on the teacher’s methods, i.e. feedback for the teacher. Additionally, because the formative feedback happens every two weeks, I am able to make changes to the following lessons directly, based on what I see the students’ needs are: then I can see what is relevant and pertinent to the students on a week by week basis. The formative feedback become a formative course evaluation at the same time, forming my teaching practice.

Moreover, while marking the first essays is time consuming, my experience is that the students learn much faster and with more clarity and focus than if I were using written evaluation, a fact that is confirmed in the literature quoted above (Macgregor, Spiers, & Taylor, 2011; Mathiesen, 2012). As the students learn faster, their work improves more quickly, and each new essay becomes better and better. A quantitative evaluation of the length of each video showed that while the first couple of essays take an average of 30 to 40 minutes to grade, the last couple of essays take 5 to 15 minutes to grade because the students make fewer errors. Time is saved in the grading process because students are really learning to improve their writing due to the superior method of feedback, i.e. screen capture videos, and they apply what they have learned more successfully.

¹ Basic English Grammar Skills for University, and Basic English Writing & Presenting Skills for University

Secondly, another important method used in these courses to improve formative feedback has been filming lectures, including screen capture video with embedded PowerPoints and making them available to students, by posting them on an LMS (Learning Management System, such as CANVAS). This provides students with continuous opportunities to review lectures at their own pace and to refer back to other topics and lectures. For example, if a student is not able to understand a threshold concept completely, they have the opportunity to revisit it when their learning has progressed in other issues and the basis for understanding has become broader. In addition, filming the lectures provides concrete and formative feedback to the teacher on their teaching methods.



Screenshots here of one of these lessons, film using screen capture video.

Conclusion

In summary, this paper makes two points: 1) the use of screen capture video enhances feedback and is a superior method of formative evaluation, saving time and helping students reach learning outcomes; and 2) filming lectures with embedded PowerPoints and making them available to students can be important for formative feedback. In order to create a higher quality of feedback and improved student success at reaching learning outcomes, these time-saving methods have been applied to courses at *Malmö University*: to use feedback via screen capture video instead of written feedback and to film and post lectures. After implementing these methods, present statistics of student course completion rates have been observed to have nearly doubled compared with previous results, which seems to indicate quality feedback and successful learning outcomes. One possible interpretation is that time spent on formative and summative feedback was time well invested.

Word Count: 1,947

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