

## FEEDBACK STRATEGIES FOR INFORMATION SYSTEMS FACULTY

*Edward J. Lazaros, Ball State University, ejlazaros@bsu.edu*  
*Allen D. Truell, Ball State University, atruell@bsu.edu*  
*Melody W. Alexander, Ball State University, malexander@bsu.edu*  
*Jensen J. Zhao, Ball State University, jzhao@bsu.edu*

### ABSTRACT

*This manuscript presents research findings from the literature relating to feedback strategies for the benefit of information systems faculty and their students. The specific literature findings that are examined include students and feedback, faculty and feedback, video feedback as a well-received strategy, benefits of video feedback, voice-over video feedback, and screencast video feedback. Additionally, strategies for using screencast video feedback in the information systems classroom are presented in a systematic order using graphic illustrations. The aforementioned screencast video feedback strategies can be easily implemented in any information systems classroom, regardless of the content, for the benefit of faculty and their students.*

**Keywords:** Feedback, Learning, Video Feedback, Screencast Video

### INTRODUCTION

This manuscript presents a multitude of findings from the literature relating to feedback strategies for the benefit of information systems faculty and their students. With regard to feedback, the student perspective is presented, since learners ultimately reap the rewards when it is effectively used. The faculty point of view is also presented. Research findings that indicate video feedback is well received are presented along with rationales as to why. The benefits of video feedback are identified, which include but are not limited to increased learning, positive impact on behavior, reflection on performance, and enhancements to both intrapersonal and interpersonal skills. Voice-over video feedback is described by individuals who have had success with it. One type of voice-over video feedback is screencast video. Because screencast video is a relatively new strategy for delivering feedback, a graphically illustrated systematic approach to using it is provided, which can be implemented in any information systems classroom.

### NEED FOR THE STUDY

Within their own institution, the authors have found that student achievement and student satisfaction as measured by teaching evaluations both play an important part in promotion, tenure, and merit decisions. The authors have found that using good feedback has assisted in increasing information systems student achievement and the mean scores on teaching evaluations. The localized professional experience with positive outcomes associated with good feedback set the need for this study.

### PURPOSE

The primary purpose of this manuscript was to identify a breadth of full-text professional journal articles relating to feedback and draw information to be presented for the benefit of information systems faculty. The secondary purpose of this manuscript was to illustrate how to use screencast video feedback in the information systems classroom.

## METHODOLOGY

A systematic literature review was conducted. Specifying the search terms “*video feedback*” a comprehensive search was conducted to identify full-text professional journal articles using the leading multidisciplinary research database called Academic Search Premier. Selected professional journal articles relating to the search terms “*video feedback*” were included in the review of literature if they closely aligned with feedback strategies that would be helpful for information systems faculty. Within the review of literature, a summary of findings and the broad perspectives relating to the topic of feedback were presented. Using graphic illustrations, strategies for using screencast video feedback in the information systems classroom were also presented in a systematic order.

## LITERATURE REVIEW

### **Students and Feedback**

Beaumont, O’Doherty, and Shannon (2011) indicate that students perceive quality feedback as a system of guidance that provides a summative judgment of performance and opportunities to discuss areas of improvement, which ultimately scaffold student learning. They see feedback as timely and strongly feel the desire to receive feedback and guidance before they submit an assignment (p.674). The quality of feedback is again emphasized in research by Jackson and Marks (2016) who found that some students felt feedback to be useful in improving grades, though others didn’t notice any change in grades after receiving written feedback. It was determined that these differences came down to the quality of reflections students put into feedback. There can be a disconnect in the interpretation of feedback by the learner that makes it harder to grasp. Students may not understand the feedback because sometimes educators have a difficult time communicating what exactly they want (p.544). Jackson and Marks (2016) emphasize making feedback concurrent with what is happening in the classroom. This can be done by linking feedback closely to future assignments in the class so that students can become more familiar with feedback and learn how to pragmatically utilize it to increase grades and overall academic performance (p.544-545).

Some of the former findings parallel what Alvarez, Espasa, and Guasch (2012) identified. They suggest that students expect clarity on parts that need to be corrected. When feedback is clear, students can make better use of teacher feedback and make better textual revisions. The researchers reported that feedback had a significant impact on student responses when they modified their writings after receiving feedback. The researchers reported that students value having support from their teachers. The information should hone-in on issues that need to be addressed in an assignment (p.394). Alvarez et al. (2012) go on to say students don’t benefit as much when feedback is corrective or just a simple expression of a teacher’s opinion. This causes students to lose interest in the feedback. It was found that adding a collaborative component to writing assignments allowed students to improve their schemas of the content and reinforce the ideas they were learning. This came through discourse between group members in the study (p.397-398). This seems to parallel McManus (2001) who points out that negative feedback is not useful because it elicits a response in the brain that prompts one to shut down the feedback being receive (p.19). Alvarez et al. (2012) also emphasize the need for more than just correction in the classroom when they state “*Feedback meets the two conditions necessary to facilitate the learning process, namely correction and elaboration, which in our study is represented by the suggestions which allowed the students to progress in the assignment and improve the text they were revising*” (p. 398).

Much like the aforementioned research findings, Panasuk and LeBaron (1999) purposed that feedback should improve the instruction, promote teacher and learner growth and reflection, and assess future learning needs for students. Feedback and effective teaching go hand-in-hand as feedback should be comprehensive, fair, improve subject knowledge and help motivate students (p.359). The researchers go on to say that getting students involved in feedback is essential because it promotes mutual respect in the classroom climate, providing educators feedback on how their pedagogy is reaching students. This also gives educators a chance to look into students’ own learning experiences first-hand by analyzing what they’re saying about the learning climate, stressors, and academic engagement (p.359).

### **Faculty and Feedback**

Beaumont, O’Doherty, and Shannon (2011) found that faculty saw the purpose of feedback as a vehicle to improve performance and juxtapose achievement to a standard. They stress the importance of having consistent feedback and communication with their students for it to truly be effective (p.680). Unfortunately in their study, Beaumont et al.

(2011), found little consistency with regard to feedback in higher education. They reported “A striking feature of the practice reported at universities was the inconsistency of feedback methods and formative assessment practices; there was little consistency within the departments we surveyed regarding the availability of preparatory guidance, the use of peer or self-assessment, drafts or verbal and written feedback practices, and no identifiable process could be determined” (p.682).

Interestingly, Hattie (2012) echoes what the former researchers presented with regard to the importance of consistent feedback and communication. While Hattie (2012) insists that feedback has a monumental impact on student learning, there is a caveat to this. The quality and form of feedback are variables that will influence how students engage with the feedback, as well as how it is interpreted (p.18-19). Hattie emphasizes “there is as much ineffective as effective feedback” (p.19). Hattie (2012) indicates that quality feedback should address the questions: where is the student going, how is the student going, and where to next. These three questions all address separate facets of the learning process that can make or break quality feedback. Where is the student going questions what success looks like to student, what are the objectives he/she needs to get from the current level to where he/she should be. How is the student going requires the identification of strengths, weakness, and current achievement; it is a more holistic view of the student on an individual basis that aims to identify how one can provide effective feedback to the learner. Where to next implies that teachers need to reinforce ideas presented in the feedback; this is about giving constructive feedback that is informative and provides elaborate constructive criticisms and solutions (p.19).

### **Video Feedback as a Well-Received Strategy**

According to West and Turner (2016), students indicated video feedback was a great way to receive feedback because it gave them clarity on what needed to be worked on. They felt the use of audio and visual reference that video feedback provides allowed the process to be much more specific, informative, and constructive (p.406). These researchers indicate that video feedback was found to be the preferred method of feedback when compared to written feedback. Video feedback was valued more by the learner, but it does rely on specific feedback to increase learner’s understanding of what needs to be worked on, and how they engage in behaviors that builds from the feedback. Additionally, students are much more likely to engage and act upon video feedback because it helps them better understand the feedback that they received (p.407-408). According to West and Turner (2016), “Students suggested that video feedback was effective in increasing their level of understanding and engagement with their assessment feedback and stated a strong preference for video feedback over other methods” (p.408).

### **Benefits of Video Feedback**

Dicks (2005) asserts that the using video recording of students to provide feedback has improved their learning exponentially. Students are gaining a more comprehensive understanding of the content being taught in his course, and discussions have become more lively and productive (p.78-79). Dicks (2005) goes on to say that integrating video feedback into the classroom provides faculty and students with new learning opportunities. Furthermore, it can be used as a powerful tool for managing poor classroom conduct by recording and showing the students undesirable classroom behaviors they may be demonstrating. It is imperative that faculty frequently use video feedback and provide students with positive feedback to support it because this will broaden how students are learning (p.80). A quote from Dicks (2005) that does a good job summarizing his view on video feedback indicates “By turning the camera on ourselves, we receive immediate feedback on teaching and learning behaviors in the classroom” (p.78).

On the topic of turning the camera on ourselves, consider research by Dawson, Dawson, and Forness (2001) who turn the tables and show how video feedback impacts a different type of learner, the teacher! They discovered that teachers who received video feedback on their teaching styles had changes in their teaching behaviors. After seeing the video of their teaching, participants began to change their unanimated non-verbal language, such as lack of facial expression and standing over students, to more comfortable behaviors for the students that included kneeling down to be at eye level with the student and using more expressive body language (p.198). Dawson et al. (2001) argue that video feedback has a positive impact on teacher behavior, which consequently has an effect on student performance (p.199-200). Video feedback apparently also has an effect on medical student performance. Roter et al. (2004) proposed that providing participants with video feedback was found to be a very helpful, productive format in improving their clinical skills. By the end of their study with postgraduate medical students, it was found that video feedback training intervention enhanced participants communication skills, open-ended question usage, sensitivity to patients’ emotions, and helped build stronger relationships between the students and their patients (p.153-154).

The following researchers do not just allow learners to review themselves on video. Instead, supplemental verbal feedback is used as reinforcement. Ozcahar et al. (2009) claim video-recorded feedback provided students a terrific chance to reflect on their performance, which was reinforced by verbal feedback from the assessor. Learning outcomes in the video and verbal feedback group were much higher than the verbal feedback group, indicating an increase in student understanding when compared to the verbal feedback only group. The problem with this form of feedback is that students may feel anxious or hesitant to be recorded (p.477).

Mills and Pace (1988) are even more specific regarding the video feedback process because they discuss four facets of conducting a video feedback session, which include preparing the trainee for feedback, viewing the tape, conducting the evaluation, and post-viewing comments. According to Mills and Pace (1988), video feedback allows individuals to have their performance evaluated by themselves and peers, which is useful for enhancing both intrapersonal and interpersonal skills. It is important to evaluate their errors and provide constructive feedback that aims to improve effectiveness rather than criticize. It is important to encourage questions and provide specific verbal feedback that compares progress to performance standards (p.38).

### **Voice-Over Video Feedback and Screencast Video Feedback**

Contreras, Joyce, Van Handel, and Farley (2015), indicated the surgical skill training that medical students receive is often limited in terms of time and instruction due to many factors such as work-hour restrictions for residents. This results in feedback and instruction being limited, which can create a rift for students who want to further enhance their surgical skills. The researchers discuss how a video recording and a voice-over feedback panel was utilized after a 2-hour knot-tying session. It measured to see how effective video-feedback could be at improving participants' knot-tying skills and to determine if this technology could be implemented in medical training. They found that voice-over video feedback was a quick process, and students perceived video voice-over feedback to be an extremely useful resource to augment self-efficacy in surgical skills. They liked how voice-over video feedback optimizes the feedback process to efficiently provide one-to-one interaction and guidance to students, which may prove to be useful in large classrooms where it's more challenging to provide individual guidance (p.1146). According to Contreras et al. (2015), *"Through consistent feedback, students may be able to correct bad habits before they develop and continue to advance their skills with minimal time investment by surgical staff"* (p.1146).

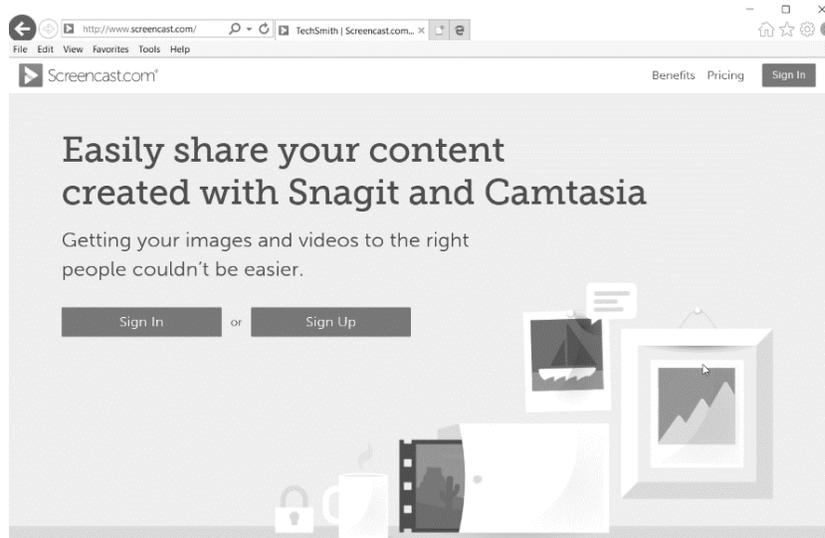
Lamey (2015) wrote that video as a form of feedback improves the feedback process for both faculty and students. Students believe that video feedback has a large impact on their learning over written feedback because they have visual focus, and they can hear the faculty member's tone and voice with greater clarity and resonance. Students see the process as more informative, personal, more beneficial at providing long-term improvements, and easier to understand than written feedback. It also must be noted that video feedback inherently works better in some courses than others. Lamey (2015) goes on to say that feedback provides ease of use for faculty. Rapid progressions in technology have made it easy to set-up, record, and deliver feedback in a timely manner to students; videos can be shared to students through e-mail, Google Drive, Blackboard, and any website that supports video hosting or cloud storage (p.692). Lamey (2015) also discusses the time benefit to faculty *"Beyond the shift to a new technology, video feedback changes the grading experience for the instructor. In terms of content, it lends itself most naturally to giving feedback that is focused on substantive content rather than assessing grammar and writing, and that indicates to the student ways to improve future work. It has the further benefit of reducing the amount of time an instructor spends on grading"* (p.693).

Jones, Georghiades, and Gunson (2012) discuss screencast video as a type of voice-over video feedback. They report that many students found text feedback to be lacking in detail and effectiveness. Screen capture provided a way to enrich student learning and feed-forward their potential through a digital medium that students easily became accustomed. Students were able to listen and read assignments, as well as have their work commented on so that they could continually augment their own work. This had a monumental impact on overall student performance (603-604). Jones et al. (2012) indicate that the use of screen capture digital video is a pragmatic method for enforcing learning and enriching students' schema of content. It was found that one of the largest discontentment's students have with forms of written feedback is that it is sometimes minimal or includes jargon that doesn't fully encompass what needs to be rectified. Through digital video, students were able to connect with tutors and immediately have someone to go through their work and provide feedback, only limited by the tutors' performance (p.605).

### Using Screencast Video Feedback in the Information Systems Classroom

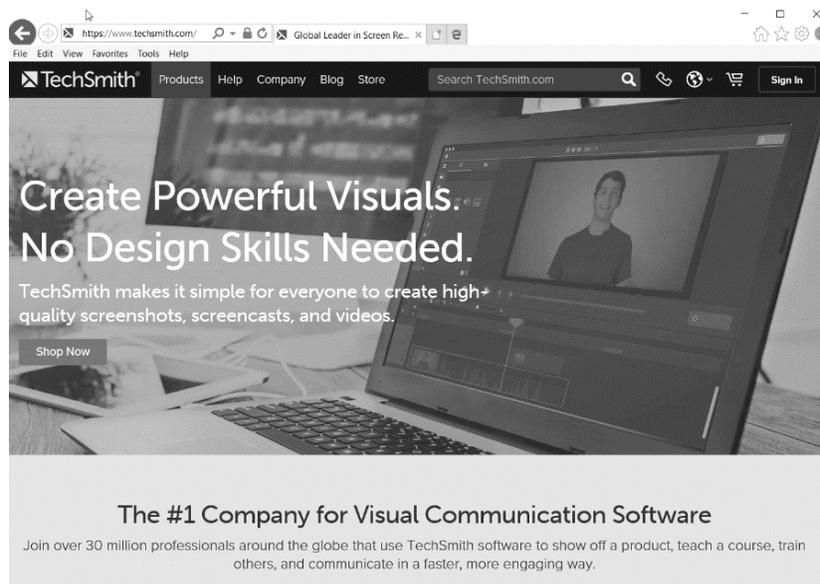
Because screencast video is a relatively new strategy for delivering feedback, this section will graphically illustrate in a systematic order how it can be used in any information systems classroom. There are many different types of screencast video software available on the market, which can be used to provide video feedback in the information systems classroom. For the sole purpose of illustrating the process, a product called Snagit from TechSmith has been selected due to the positive outcomes it has yielded in courses taught by some of the authors. This should not be construed as an endorsement for this product. Snagit works seamlessly with a free online video storage server called Screencast.com, which provides free storage for up to 2 Gigabytes of video. This screencast software allows an instructor to assess student assignments with the use of audio and video, upload the video to the Screencast.com server, and then instantly create a hyperlink to the video. The hyperlink to the video can be e-mailed to the student or posted in a discussion forum or gradebook. This process is described in the following procedure in detail:

1. Open a web browser and go to: <http://www.screencast.com> and sign up for a free Screencast.com account. See **Figure 1**.



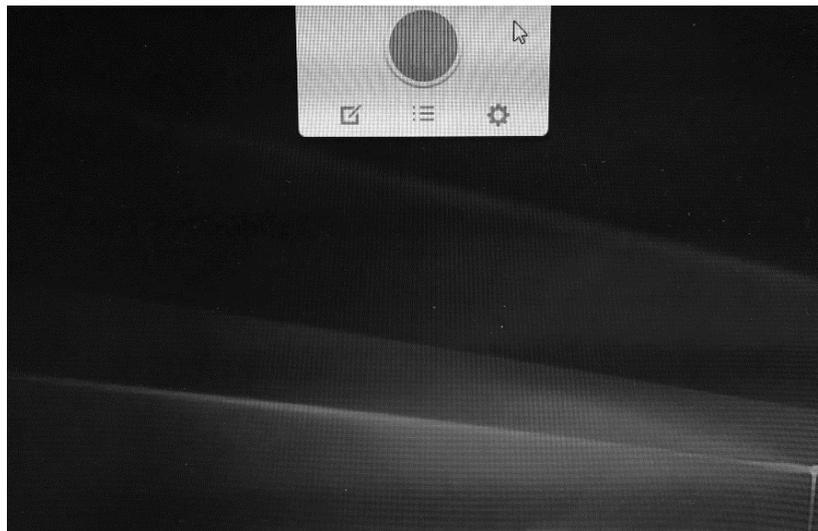
**Figure 1.**

2. Open a web browser and go to: <https://www.techsmith.com> to purchase and download Snagit. After it has been downloaded, go through the installation process. See **Figure 2**.



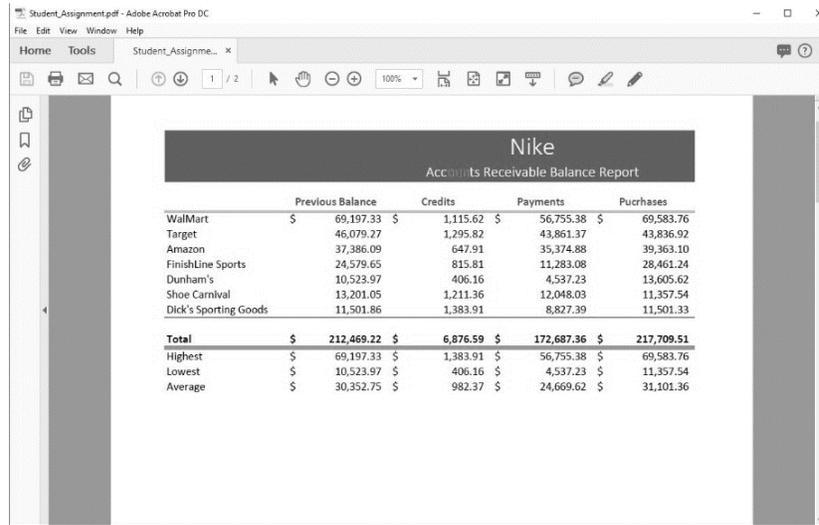
**Figure 2.**

3. Once the Snagit software has been installed, select the option for OneClick, which will allow the capture menu to float on the top of the computer screen. **See Figure 3.**



**Figure 3.**

4. Have students submit their assignments as Adobe PDF files.
5. Open the assignment to assess it in Adobe Acrobat and then select the red pencil tool, which will be used in conjunction with the Snagit screencast software. **See Figure 4.**



The screenshot shows a PDF document titled "Student\_Assignme..." in Adobe Acrobat Pro DC. The document content is a "Nike Accounts Receivable Balance Report". The report is a table with five columns: Previous Balance, Credits, Payments, and Purchases. The rows list various retailers and their respective financial figures. A total row is also present, along with summary rows for Highest, Lowest, and Average values.

	Previous Balance	Credits	Payments	Purchases
WalMart	\$ 69,197.33	\$ 1,115.62	\$ 56,755.38	\$ 69,583.76
Target	46,079.27	1,295.82	43,861.37	43,836.92
Amazon	37,386.09	647.91	35,374.88	39,363.10
FinishLine Sports	24,579.65	815.81	11,283.08	28,461.24
Dunham's	10,523.97	406.16	4,537.23	13,605.62
Shoe Carnival	13,201.05	1,211.36	12,048.03	11,357.54
Dick's Sporting Goods	11,501.86	1,383.91	8,827.39	11,501.33
<b>Total</b>	<b>\$ 212,469.22</b>	<b>\$ 6,876.59</b>	<b>\$ 172,687.36</b>	<b>\$ 217,709.51</b>
Highest	\$ 69,197.33	\$ 1,383.91	\$ 56,755.38	\$ 69,583.76
Lowest	\$ 10,523.97	\$ 406.16	\$ 4,537.23	\$ 11,357.54
Average	\$ 30,352.75	\$ 982.37	\$ 24,669.62	\$ 31,101.36

Figure 4.

6. Select the red capture button in the Snagit software. Then, click and drag a yellow frame around the assignment. See Figure 5.

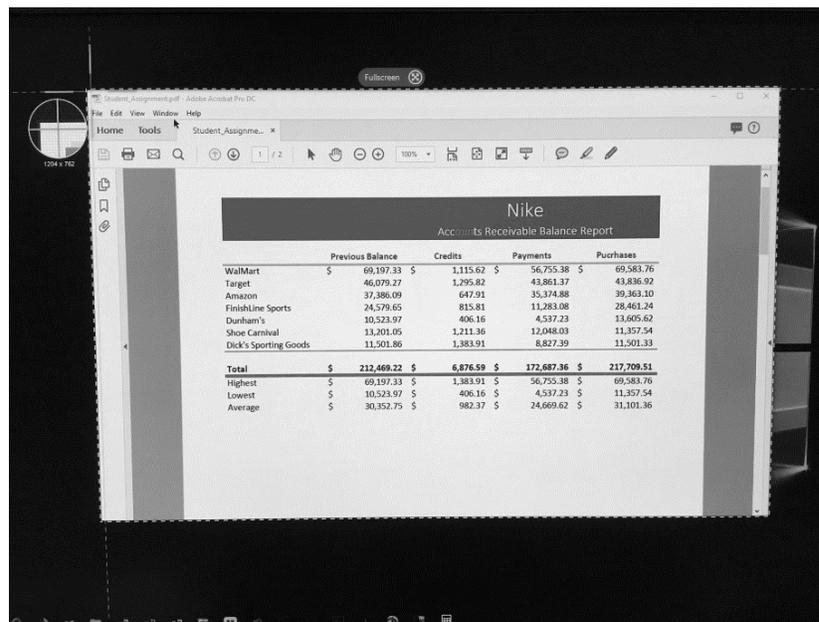
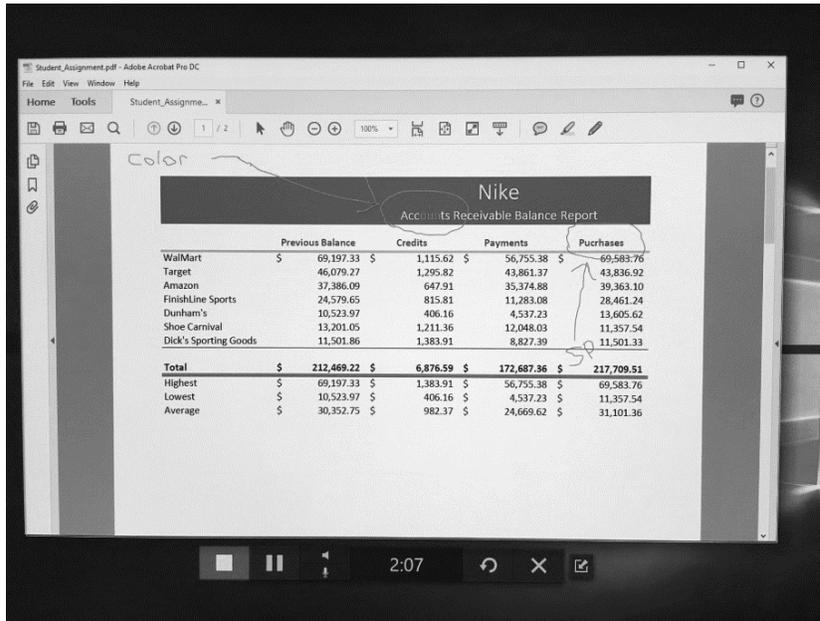


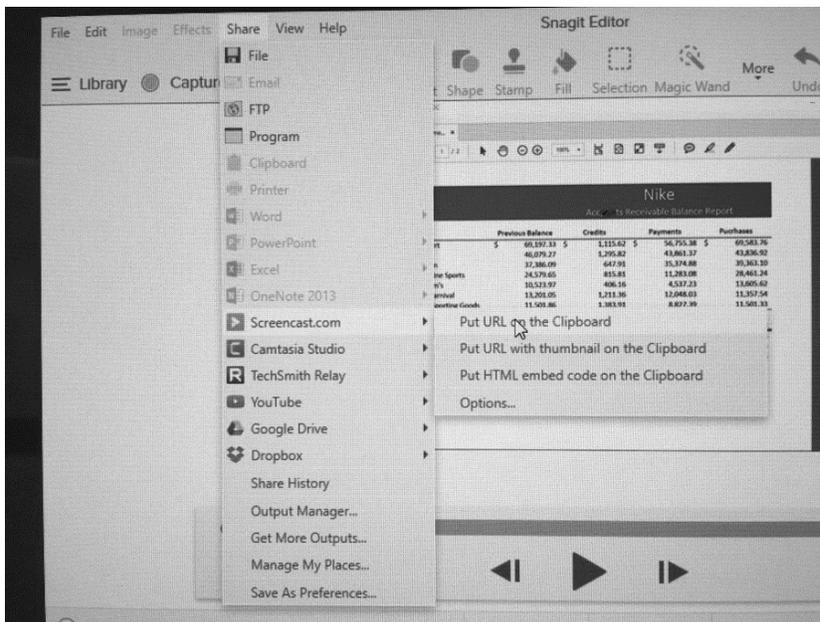
Figure 5.

7. A three second countdown will display on the screen. After the three seconds, the video and audio is live and ready to narrate audio assessment details while providing mark-up comments on the screen with the red pencil in Adobe Acrobat. See Figure 6.



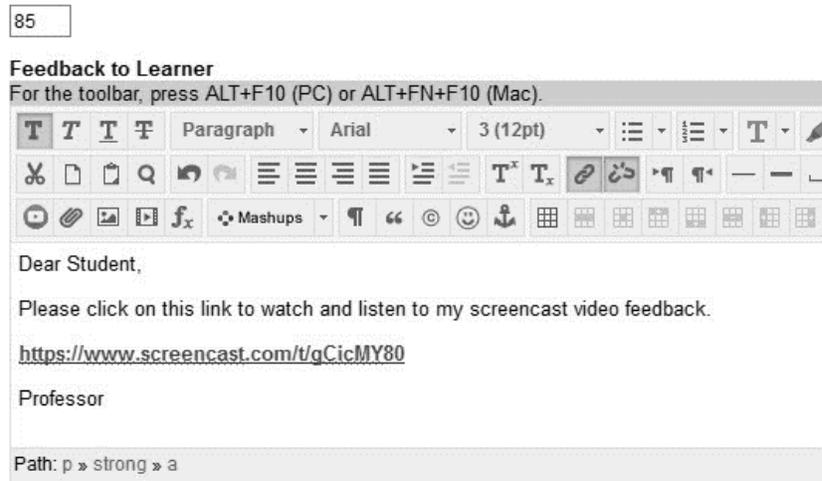
**Figure 6.**

8. Once the assessment of the assignment is complete, select the stop button and then Share, Screencast.com, Put URL on the Clipboard. See Figure 7.



**Figure 7.**

9. Paste the hyperlink to an e-mail message, online discussion thread, or grade book along with a message that instructs the student to click on the video link to watch and listen to the instructor's assessment of the assignment. See Figure 8.



**Figure 8.**

### SUMMARY

This manuscript presented the findings from a systematic literature review of full-text professional journal articles relating to the terms “video feedback”. A summary of findings and broad perspectives relating to feedback strategies were presented. Strategies for using screencast video feedback in the information systems classroom were presented in a systematic order using graphic illustrations.

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