

Swivl – An Intuitive Approach to Video-Based Reflection

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Introduction/Need for Innovation or Idea

Defined as “a mechanism for the construction of knowledge from experience” (McAlpine & Weston, 2000, p. 371), reflection plays a major role in Kolb’s (1984) experiential learning theory. While research supports the importance of reflection in the provision of a holistic, experiential education (Baker, Robinson, & Kolb, 2012; Kolb, 1984; Lamm et al., 2011), it is evident that not every teacher makes a point to reflect (McAlpine & Weston, 2000). As such, the teacher-education faculty at Oklahoma State University recognized a need to provide pre-service teachers the opportunity to purposefully reflect on their instructional practices.

Oklahoma State University has chosen to answer this challenge by requiring pre-service teachers to record and reflect on their own instructional practices. However, poor audiovisual quality, camera reliability, and video storage are frequently encountered problems. To combat these problems while supplementing the program’s recent adoption of EDTHENA, an internet-based, video-sharing system that allows for the delivery of peer and instructor feedback, Oklahoma State University has turned to Swivl. This innovative technology has two primary components: (a) a web-based, cloud platform, and (b) an automated, video-capturing robot. Paired with EDTHENA, Swivl provides pre-service teachers easy, hands-free access to high quality audiovisual recordings of their teaching practices in order to facilitate self-reflection and a healthy exchange of feedback.

How it Works/Methodology/Program Phases/Steps

Pre-service teachers are able to exchange feedback and reflect on their own teaching practices through the combined use of Swivl and EDTHENA. Before recording their first lesson, a pre-service teacher must download the Swivl application onto the mobile device or tablet they intend to film with. After the application has been downloaded, the student may log on to the Swivl Cloud using the class account credentials. From this point, the student may mount their mobile device or tablet onto the Swivl robot, place the *primary marker* on their person, and begin recording. In addition to prompting the Swivl robot to follow the student’s movements, the *primary marker* also serves as a microphone and allows the student to begin and end recordings. Once a recording has ended, it is instantly available for download on the Swivl Cloud. Additional features of the Swivl platform include a legible, on-screen timer to be referenced by those teaching, as well as content slide integration and real-time synchronization for videos once uploaded to the Cloud.

After the video has been downloaded from the Swivl Cloud, the pre-service teacher may then upload the video to the EDTHENA platform and attach any supplementary materials seen fit or necessary. The recording is then made available on the pre-service teacher’s EDTHENA profile and shared with their instructors and peers. For purposes of honing a specific teaching method or instructional skill, instructors may assign their own *Explorations*. Peers and instructors may then tag videos and provide feedback, in real time, through notes, questions, strengths, and more.

Results to Date/Implications

In the fall semester of 2016, Oklahoma State University began utilizing a combination of EDTHENA and Swivl technology in the Methods of Teaching Agricultural Education laboratory course. As this laboratory is generally split into four groups of approximately five students, the department opted to purchase four C1 robots, four floor stands, and four Apple iPads. Currently, a total of 19 pre-service teachers have used Swivl technology to record four different *Explorations*. To date, 76 videos have been recorded and stored using Swivl technology. These videos have also been uploaded to EDTHENA for further reflection and feedback. In total, these 76 videos have produced over 600 instances of peer and instructor feedback, and approximately 700 instances of self-reflecting notes and observations.

Future Plans/Advice to Others

Oklahoma State University intends to continue its use of both the Swivl and EDTHENA platforms in an effort to enhance student opportunity for reflection and feedback. Within the next academic year, Oklahoma State University plans to fully integrate this combination of technology into all other, on-campus agricultural education courses. Oklahoma State University recommends the combined use of the Swivl Cloud, robot, and EDTHENA to other universities interested in providing their students an easily accessible and structured platform for feedback and reflection. Adequate time for set up of the robot should be allocated prior to the beginning of each laboratory or class period. Users should also be cognizant of battery life for both the robot and *primary marker*. The robot has an approximate battery life of six hours, while the *primary marker* will hold a charge for an estimated four hours. For those institutions interested in remotely employing this technology at student teaching centers, it is recommended that students are encouraged to purchase and utilize this system early on in their coursework to merit the expense.

Costs/Resources Needed

To successfully implement Swivl technology, a Cloud account, robot, *primary marker*, and floor stand are required. The Swivl Cloud is available free of charge and features unlimited storage. The C1 robot, equipped with *primary marker*, can be purchased from Swivl for \$599.00. With the purchase of any C-series robot, the Swivl floor stand is available for the discounted price of \$89.00. For those without access to an Apple mobile device or tablet, Swivl offers Android compatible cables for \$19.00.

At Oklahoma State University, EDTHENA has become a course requirement for pre-service teachers. Therefore, in paying their course fees, students are also purchasing an EDTHENA subscription. Rather than publishing a blanket cost, EDTHENA privately discloses prices to individual institutions based on the needs and scope of each program. As such, EDTHENA discourages any disclosure of specific quotes or costs. However, we have been permitted to share that the subscription cost for each student is generally similar to that of an ordinary, college textbook.

By pairing EDTHENA with Swivl, the need for teacher-education faculty to manually store and transfer videos to students has been eliminated. This technology has also alleviated the need for instructors to designate a person to film while the students are teaching. However, a reliable internet connection is still necessary to access both web-based systems.

References

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