Screen Recording: An Essential Classroom Tool

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Technology has opened up avenues for deaf and hard of hearing students that were previously inaccessible. No longer dependent on such equipment as chalkboards and filmstrip projectors, tools such as Smart Boards, computers, and even iPads have become part of the standard educational experience for many children. For teachers at the Washington School for the Deaf (WSD), the technology that recently has proven to be most valuable is the screen-recording tool. Screen recording has become so integrated into our work that we cannot imagine living without it.

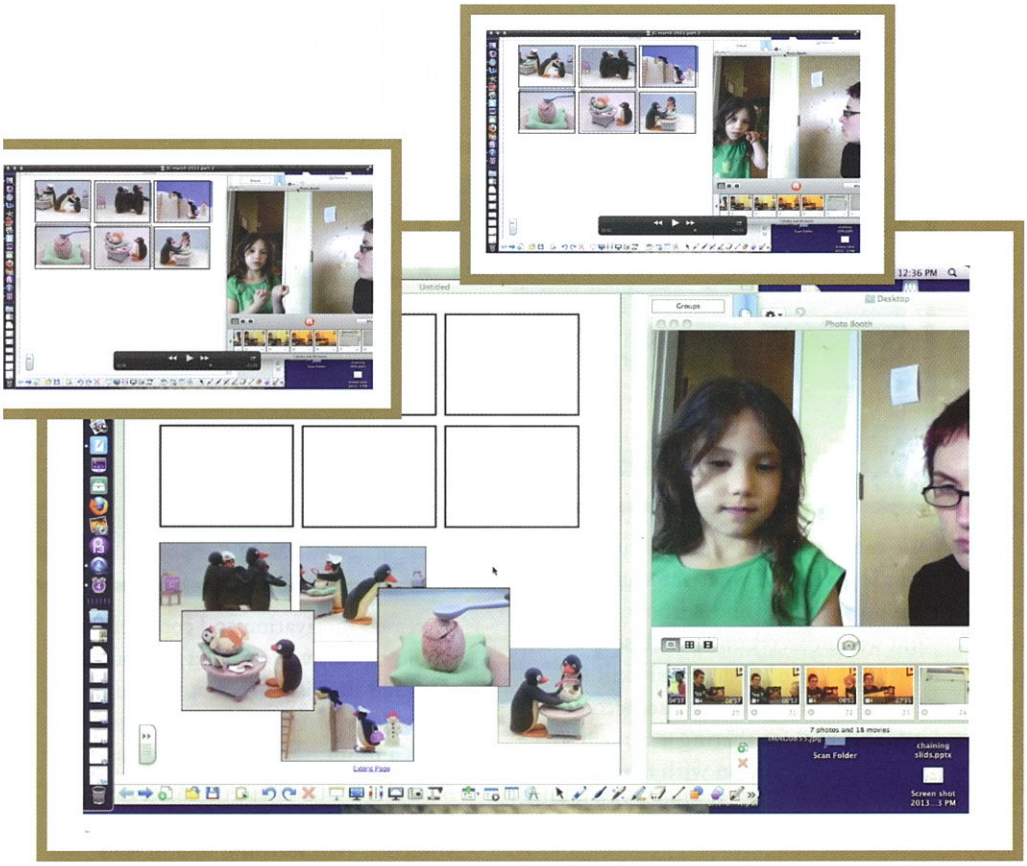
The screen-recording tool, which makes a digital video of what is displayed on the computer screen, has many applications. Not only can it be used for instruction and student engagement; it can also be used for assessment, documenting growth, classroom management, and professional development. Further, it enables teachers to support the development of American Sign Language (ASL) and English in an innovative and time-efficient way.

Writing

As every English teacher knows, writing is a process. In the classroom, this process means that students brainstorm, draft, revise, edit, and publish their work. In the past, teachers would read the students' writing and laboriously write feedback. However, this often was less effective as students would misunderstand or misinterpret the teacher's comments. Time was lost as students lined up for one-on-one conferences in which teachers explained and elaborated on what they had written.

Screen recording allows teachers to give feedback to students in ASL. Thus it often allows students to incorporate the feedback without waiting in line to talk with a teacher. Screen recording allows teachers to increase students' independence and maximize time spent on task in the classroom.

Photos courtesy of April McArthur, Jenn Christianson, Raye Schafer, and Pamela Whitney



Here is how the writing process works using the screen-recording tool:

- Students submit their first drafts electronically. At his or her convenience, the teacher opens a student's work in MS Word on one half of his or her computer screen. He or she uses the other half of the screen to videotape him- or herself as he or she provides feedback. The camera is opened through Photobooth or QuickTime, and QuickTime is used to make a video of the computer screen, which now shows both the teacher's signing and the student's written draft. The teacher goes back and forth, moving his or her cursor within the document to specific structures that need to be addressed—typing, highlighting, and signing his or her feedback. For example, if a student writes a dialogue between two characters and does not use quotation marks, the teacher uses MS Word to show the student where to include the quotation marks, and he or she signs an explanation of why quotation marks are important. All of this is recorded on the computer screen as it unfolds and saved in a QuickTime file.

- Students view the feedback independently or view and discuss it with the teacher in conference. The same procedure—creating a QuickTime file of a written document and a reader-viewer who comments on it—is used for students who read each other's work, record their reactions, and give feedback to each other.

ASL Narratives and Grammar

When students are engaged in an ASL workshop, whether it is to create stories, poetry, or presentations, the screen-recording tool is equally important. Students submit their ASL drafts by recording their presentation in QuickTime. The teacher then pulls up the QuickTime file on the computer screen, pausing the recording to discuss elements of the narrative and recording him- or herself as he or she signs feedback. For example, if the student introduces a character into the story with only a name sign, the teacher may pause the video and explain that when introducing someone in ASL narratives, it is important to fingerspell the individual's name prior to using his or her name sign.

The screen-recording tool also allows us to focus explicitly on ASL grammar. For example, in a preschool lesson on fall weather patterns, students studied classifiers—ASL grammatical features that depict aspects of pronouns, adjectives, adverbs, and verbs. Our ASL assistant made a video to illustrate how ASL depicts leaves falling by quantity, speed, and movement. First, she found a video online that showed

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images of leaves falling from trees. She eliminated unwanted portions of the video—the text and advertisements—by clicking and dragging the mouse to selectively screen record the falling leaves, and she recorded only a short excerpt of the video. Finally, she superimposed the video of herself signing onto the video of the falling leaves.

The children viewed the video in our ASL center and practiced their ASL classifiers. As a final activity, each child individually recorded signing versions of leaves falling to represent the successive stages of the fall season. All of the clips were combined into a single movie, which was displayed in the foyer, much to the delight of the students, parents, and staff, as well as visitors to the campus.

Analysis and Documentation

Screen recording is also used to gather language samples and to analyze how students view, summarize, and retell short narratives, foundational skills correlated to literacy development. For example, we record students as they view short animated stories and record them again as they retell and summarize the stories. We do this by setting up two windows on the computer screen. One window displays the original video; the other window displays the student as he or she watches the video. Using a screen-recording program, both windows are encoded into one video file.

The teacher observes students viewing the video clip and notes what the students paid attention to, how many times the students reviewed any single clip, the level of attention paid to particular events on screen, and how the students retold the story. Everything that is seen by the student is recorded, along with the interaction between staff and student. Using this technique, teachers are not testing the child's memory of a single event but rather the child's ability to comprehend and retell a series of stories to which he or she has had potentially multiple exposures. Screen recording provides detailed data.

We can identify the level of support that is given and what the student can do with help and without help, and we can ascertain how close a student is to mastery of a particular skill set.

The screen recording also becomes a valuable tool for sharing a student's language acquisition with family and other professionals. It allows teachers to record not only their interactions with a student, but also to document any modification and support provided. Screen recording allows teachers to view every aspect of the one-on-one interaction and to go back later to tally what kinds of supports were needed. In subsequent instruction, teachers can manipulate what is on the screen and modify instruction based on students' responses. Instruction is individually tailored to students' needs.

Professional Development

We've also found screen recording to be helpful for staff training and professional development. For example, as part of a WSD training series, teachers read and study articles and attend presentations. Then we break into small groups and have discussions based on responses to a video prompt or respond to written questions. Choosing their language, teachers craft their responses in either ASL or written English. Presenters then provide individualized feedback in ASL through screen recording.

Recording Success

After we began using screen recording in our classes, we immediately saw a difference in the classroom. Students became more engaged and showed increased motivation and confidence. Their expressive vocabulary—both in ASL and English—increased, and use of more descriptive language emerged.

As a result, screen recording has allowed us to further raise our already high expectations for our teachers and students. As a learning tool, screen recording allows our students to develop their skills in ASL and English and their knowledge of how these two languages work. Students are able to delve into concepts in more meaningful ways, and they have more freedom to express themselves, show what they know, and demonstrate their understanding of content.

Whether students are working in ASL or English, there is no need to rely on memory. The feedback is recorded. They can view it independently, during an ASL or writing workshop, or while doing their homework. The feedback is durable; it can be watched over and over as students revise and edit their work.

As a teaching tool, screen recording allows instructors to meet students' needs, to capitalize on students' strengths, and to use ASL as a bridge to English. At the same time, learning to use the screen-recording tool has increased students' technological awareness and skills. For WSD, screen recording has proven to be an invaluable tool for teaching and learning in ASL and English and for supporting our mission for students to become bilingual, empowered, and successful. Today and tomorrow—the very BEST!