

Teachers Learning To “Do” Video: Aim, Shoot, Ready!

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This paper describes an intensive two-hour workshop designed to introduce preservice teachers to digital video, in the context of an instructional technology course or as a stand-alone activity. Acknowledging time constraints in most real-life instructional situations, this format takes novices with no or very limited knowledge of video making to the point where they have experienced most of the steps involved in crafting a finished (though almost certainly unpolished) digital video. Conversations at the beginning introduce project-based collaborative learning as the pedagogical context for digital video production, and the value of supporting a sense of creativity in students to promote deeper engagement with subject matter through hands-on activities involving a variety of learning modalities as opposed to predominantly passive reading and listening.

Wang and Hartley's (2003) identified “three potential uses of video technology: (a) representing situations of teaching and learning in a more comprehensive manner, (b) linking various data of a particular teaching event and issue, and (c) connecting preservice teachers to different contexts of teaching and learning to teach” (p.128). Goldfarb (2002) makes a broader case when he writes:

Experience with production can offer a different perspective from which to

understand how meaning is produced, what functions media texts serve. It also offers a new approach to fostering dialogue among students. Authorship of media texts cannot be equated with agency, but the techniques of production can be applied to forms of critical analysis that open up alternative positions from which students can think, debate, and act. (Pp. 73-74)

The approach described in this paper has a somewhat different purpose: to introduce preservice teachers to digital video making as an instantiation of constructivist thinking (Jonassen, Howland, Moore, & Marra, 2003 and as a strategy to encourage project-based learning (Moursund, 1999; Moursund, 2003).

The advent of computer-based tools for the production of digital video means that the cumbersome and expensive tools and settings needed for analog video are no longer needed. Relatively inexpensive digital video cameras and personal computers equipped with video editing software have drastically changed the requirements for amateur video production—as well as for more professional-level efforts. This means, however, that attempts to introduce teachers and students to digital video production now must also encompass the introduction of computer and video tools that are also unfamiliar to many of them, and often a source of anxiety and fear. We agree with Ross, Hogaboam-Gray, & Hannay (1999) that “Teachers who interpret their interactions with computers as indicative of high ability grow in confidence, regardless of the frequency of their experience” (p.93). The challenge of how to help preservice teachers get to a feeling of comfort with technology, with little or no fear and anxiety about integrating it into their practice, was tackled by Doering, Hughes, and Huffman (2003), who cited research and their own observations to address the fact that preservice teachers “are often reluctant to consider the worth of acquiring technology knowledge, much less integrating the technology within their

curriculum” (p. 343). When it comes to video specifically, Shewbridge and Berge (2004) note that, “As a technology, video production has been recognized for its knowledge building capabilities and potential for application in constructivist learning (Jonassen, Peck, & Wilson, 1999). It is only natural that a constructivist approach be considered when designing instruction for production itself” (p. 36).

The underlying philosophy for the approach advocated in this paper is constructivist theory, which has been aptly summarized in relation to technology by Jonassen (2000), Roblyer (2003), Teets & Starnes (1996), Sandholtz, Ringstaff, & Dwyer (1997), among many others. In brief, a constructivist teacher is one who designs the learning environment and most learning activities to be as student-centered as possible, aiming for the creation of meaningful learning in each of the students through work that is active, constructive, cooperative, authentic, and intentional (Jonassen, Peck, & Wilson, 1999). Constructivism and its related pedagogical practices that integrate technology are difficult to inculcate in preservice teachers “given the few hours that preservice teachers are allotted to learn about technology and to think about integrating it within a discipline” (Doering, Hughes, & Huffman, 2003, p. 343). For example, the experience reported here takes one two-hour session in the only two-unit course on instructional technology (a total of 20 hours in a ten-week quarter) in a teacher preparation program determined by teaching credential requirements in the state of California (California Commission on Teaching Credentialing, 2003).

Thus one goal for the model described here is derived from our interest in planting the seeds of a fearless attitude toward technology as opposed to focusing solely on getting students to “master” specific applications, along with exposure to constructivist theory and pedagogy through an experience that aimed to embody many of the principles outlined above. A

complementary goal was to broaden the implicit definition of “technology” to mean more than computers used for personal productivity (and entertainment), and the Internet used for research (and entertainment), to specifically include digital video as a tool for creativity (Loveless, 2002), collaborative learning (Facer & Williamson, 2004), and meaning making. (See also Hernández-Ramos & Giancarlo, 2004).

Learning About Digital Video

When the first experiences with this workshop model approach to digital video were first conducted in 2002, several preservice teachers expressed reservations about the value or relevance of digital video making to teacher’s daily practices in the classroom. Most preservice teachers then did not own a digital video camera or had any knowledge of how to operate one. Also, many of them acknowledge a fairly uncritical attitude toward visual media, particularly television, and either had little curiosity about how it is produced or had never had a chance to explore how videos are made.

The evolution of computer-based tools to digitize, edit, and distribute video have come a long way to fulfill Reilly’s (1994) prediction that “tools for composition of videos or more elaborate multimedia texts including print, video, graphics, and animation will be available for the construction of texts” (p. 481). For this experience, we routinely rely on Apple iBook G3 (600 MHz) laptop computers, dating from 2002, which along with Apple’s iMovie software have performed admirably well in support of the limited type of digital video projects required of participants. Faster, more powerful computers do make a difference in the speed at which certain titles and effects, for example, can be executed within iMovie, but the flexibility and convenience of the laptops more than makes up for their relative lower power.

For the “typical” two-hour workshop the time is divided into five distinct steps:

Conversation (10 minutes), Guidelines (5 minutes), Shooting (30 minutes), Post-Production (60 minutes), and Film Festival (15 minutes).

Conversation. In the context of a course, students are required to prepare by reading either a chapter (e.g., chapter 5, “Learning by Visualizing With Technology: Recording Realities With Video” from Jonassen, Howland, Moore, & Marra, 2003) or an alternative such as issues of the *TAP Into Learning* newsletter produced by the Southwest Educational Development Laboratory (SEDL, 1998; SEDL, 2000). The readings provide some background on constructivist theory, project-based, collaborative learning, and integration of technology for meaningful learning through specific learning activities. The conversation builds on teaching challenges that the preservice students may have already observed in their school placements such as (lack of) student engagement, (low) quality of student work, (poor) collaboration and communication skills, and (perceived lack of) authenticity and meaning for student work. No attempt is made to reach any conclusions, but rather raise the issues and invite students to reflect on them as they participate in this experience.

Guidelines. Digital (mini-DV) cameras are distributed to each group of three students. Normally we allow students to form their own groups, though a good practice is also to form groups based on pre-defined criteria such as grade level or content area. (It’s worth pointing out that we have successfully completed workshops with as many as 30 participants, with two instructors or one instructor and an assistant). Basic instructions on how to operate the cameras are given, along with simple pointers for better video (e.g., slow pan and zoom camera movements, short 5-to-10 second “takes”). The only requirement is that each member of the group has to operate the camera as well as be on camera as the subject.

Shooting. Contrary to what “best practice” in video production suggests (e.g., Mitchell,

2003), we deliberately give the students no time to prepare a script outline or storyboard. With limited time, we knew that students would spend too much time and effort up front trying to agree on script ideas and get frustrated when they then had too little time left for editing and “post-production.” The assignment was for groups to go out and shoot film for about 20 minutes, keeping in mind that the group product would be a video no more than two minutes long, including titles. The “playfulness” of the learning situation is not an accident, but designed to reduce anxiety and encourage experimentation. Strawbridge and Barge (2004) state that play “can serve as a strong motivator for students. It is undertaken for its own sake, not for a basic need or social demand, and it requires active participation of the player. The importance of play is reinforced by student's [sic] perception that while they realize they are involved in play activity, they are also aware that they are learning from the experience” (p. 37).

Post-Production. Each group is assigned a computer, given copies of short handouts on basic iMovie functions (available free from Apple’s web site; see references), and start digitizing their video using the iMovie application. The expectations are quite simple. The video must include an opening and a closing title, at least two transitions, and at least two sound effects (or added voice-over). From experience we have learned that groups that come back with more than 10 minutes of raw video will not be able to digitize and edit to their satisfaction even a short two-minute video, so at times groups are asked to stop digitizing once they have about 10 minutes worth of clips and move on. It is at this stage that having more than one instructor/assistant in the classroom or lab where the workshop is taking place is most helpful, as there are always questions or problems to help solve. Students are encouraged to explore for solutions on their own, and to request help only when feeling “stuck” and not able to make progress. At this stage it is easy to observe the benefits and challenges derived from collaborative learning and shared

decision-making. On the benefits, Facer and Williamson (2004) remarked that, “Increasingly, collaboration is seen as important in creative learning and to children’s abilities to evaluate and justify their opinions; to gather knowledge from others; to share their expertise with others; and to transform their existing understandings as learners in a constant process of personal and social development” (p. 7).

Film Festival. With no time to plan, students were quite creative and playful—another objective for the assignment. As is to be expected, all movies are obviously still “works in progress” when it is time to call and end to post-production and export the project as a QuickTime movie for the film festival. Each group is asked to introduce themselves and their topic. Presentation to the audience of their peers (and the instructor) is an important step in creating the sense of authenticity that comes from knowing that the instructor won’t be the sole audience for their work (Jonassen, 2000).

Students like the iMovie application, in part because it gives them a great sense of accomplishment by allowing them to come up, from start to finish, with a final product that they can be proud of despite the limitations of the lack of time and inexperience. Students have selected a wide variety of topics and formats, including digital story telling, school site overviews, public service announcements, advocacy, and humor.

Course evaluations and subsequent conversations indicate that this experience helps all students understand the value of collaborative work in the context of a project-based assignment, and how video could be meaningfully incorporated into learning opportunities across all grade levels and subject matter.

Extensions

Once students are somewhat comfortable with the basics of digital video, possible extensions include using time-lapse video and stop-motion animation (e.g., Rosenberg, 2004; Baugh, 2004) as alternative or complementary activities that rely on the core set of skills acquired in this workshop. This format has also been used with faculty members from one department of Education, and it was equally successful as a learning experience and as a team-building exercise.

The variety of projects that can be undertaken across a wide range of subjects is limited only by our imaginations. Video is also a natural “bridge” to teachers interested in exploring interdisciplinary collaborations. For example, Burrell (2004) reports on how high school students used video to produce oral book reports, supported by their English and Video Production teachers. The finished reports are streamed from the school’s server to anyone within the school’s network. And English is not the only subject open to exploration through video, as Connelly & Connelly (2004) report on the outcomes of the International Student Media Festival. For teachers themselves, video can be an ideal tool to document student learning throughout the year, and engage parents and other stakeholders in richer learning conversations (e.g., Dianis, 2004).

Conclusions

Shewbridge and Berge (2004) say that, “Perhaps one of video's greatest strengths is its ability to motivate students to explore their topics and themselves. Production is hard work, but it's fun, and students find the experience exhilarating and inspiring. Educators can harness this power and create imaginative learning opportunities for their students” (p.39).

Students and faculty in education are facing increasing expectations for familiarity with video. For example, the National Council for Accreditation of Teacher Education includes the following scenario in a publication titled *Technology and the New Professional Teacher—Preparing for the 21st Century Classroom* (NCATE, n.d.):

The teacher education students eagerly look to the front of the classroom as Amanda takes her position near the electronic podium. One of the other students begins videotaping her microteaching lesson for Amanda to review and critique later. She dims the lights slightly and the presentation begins with a computer graphic displayed on a 5' x 7' screen that clearly outlines the goals and objectives of her presentation. Amanda then switches to a brief video clip of a recent satellite teleconference on learning disorders. The video clip features an interview with a student struggling with a learning disability. The students are mesmerized, and are drawn into the topic as they identify with the student being interviewed (p. 17).

Workshops are also a great way to model for future teachers a variety of alternative teaching practices that should be seen as desirable, including co-teaching and serving as a coach or guide rather than as “instruction giver” all the time. Teets & Starnes (1996) are among many who refer to the “teacher as collaborator,” in their case as one of the core practices in the Foxfire model for staff development. The quote from NCATE also alludes to the expectation that future teachers should be familiar and comfortable using videoconferencing, and know how to capture and process videos from such events for re-use in a different context. The need to develop a critical ability when looking at video, and to use this ability as a reflection and learning tool about one’s own practice, can only be developed with explicit practice. Also, the National Board for Professional Teaching Standards (NBPTS, 2003) now requires that teachers in the United

States wishing to obtain National Board Certification should be able to videotape themselves in their classrooms, and to edit the video to demonstrate specific skills required in the certification process, as a component in a detailed teaching portfolio:

The portfolio consists of several different entries, each of which asks for direct evidence of some aspect of the teacher's work and an analytical reflective commentary on that evidence. The portfolio is completed in the classroom and includes student work, videotapes and other teaching artifacts. The videos and student work are supported by commentaries on the goals and purposes of instruction, reflections on what occurred, the effectiveness of the practice, and the rationale for the teacher's professional judgment.

As a tool in everyday teaching, the use of video and videoconferencing has great potential to create rich and memorable learning experiences for both teachers and students. The Global Schoolhouse (www.globalschoolhouse.net), for example, has been running its “Classroom Conferencing” project for several years, and interested teachers can link up with other classrooms from over 40 countries. Desktop videoconferencing is now a real possibility thanks to services such as iChat from Apple Computer and others that rely on the Internet for free connections of surprisingly good quality.

Use of “casual video” captured with PDAs, cell phones, and digital photo cameras is also on the rise and will continue to change people’s perceptions about the value of video in a wide range of situations. Increasing use may lead to a greater desire to learn more about other uses of video in professional and personal learning situations, and drive a new wave of demand for easy-to-use, creative tools for video manipulation by teachers and students.

Finally, it must be acknowledged that these kind of short, intensive experiences by

themselves are unlikely to turn future teachers into either constructivists or users of technology in their classrooms. However, by reducing the fear and anxiety that many future teachers still have about technology integration, and by helping them see the relevance of constructivist theory and pedagogies such as project-based learning using video, the seeds can be planted for future self-driven learning and development, supported through the wealth of rich resources on project-based learning and technology integration available free on the Internet, like those from the George Lucas Educational Foundation (www.glef.org).

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