Multimedia Modules: A Scripted Approach to Hands-On Training

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Digital multimedia – audio, video, graphics, presentations, and interactive Web sites – have the potential for dramatic new techniques in teaching and learning. At the University of Minnesota, Morris (UMM), our faculty members as well as our elementary/secondary education students have been quick to recognize the potential and eager to use it. But from a technical support point of view, training an individual to use multimedia applications can be time-consuming and difficult. One-on-one help is often required for hours on end just to get an enthusiastic professor (who has many questions) up and running on the simplest multimedia applications. Proposing to faculty that they create their own interactive course Web sites, for example, containing multimedia elements such as images, animations, and video prompted them to ask how many assistants they would be able to hire.

We thought that by modularizing the process of creating an interactive course Web site – breaking the project down into separate step-by-step scripts for the various media components (a video clip, an animation, and so on) – faculty could build their multimedia projects in a less overwhelming manner. We also wanted to explore whether faculty and students could learn to create and manage various types of multimedia files by simply following a detailed instruction sheet. We believed that by following a set of hands-on instructions and coming to a satisfying result, our users might effectively gain the skills they need to develop their own multimedia materials.

We took advantage of UMM's annual "Instructional Technology Institute," an event that brings forty area K-12 teachers to campus for two days of hands-on workshops, for our first attempt with scripted instructions. We chose eleven tasks to script into "Multimedia Modules:"

- scanning photos using an HP ScanJet and Adobe Photoshop;
- creating a digital photo album – using the photos scanned at the first station – with PowerPoint;
- recording a narration for a PowerPoint presentation and saving it as a movie file;
- developing a pictorial classroom-seating chart using a digital camera and MS Word;
- compressing and/or downloading MP3 files for use in a PowerPoint presentation;
- creating a three-part animated GIF file;
- recording digital video and creating a clip for use on the Web;
- communicating with real time video using desktop cameras and NetMeeting;
- stylizing a photo image using a WACOM graphics tablet and Adobe Photoshop;
- assembling the various multimedia elements into an HTML template for the Web;
- and finally, burning all files to a CD-R.

Several weeks of detailed work were required to develop the step-by-step, modular scripts for these tasks. Our first estimate of the preparation time required was seriously inadequate. It's
important for each module's script to be precise in every step, to be customized to the hardware and software in use, to be written in an organized and clear manner, and to be tested by more than one person (someone other than the person who wrote the script). A total of nineteen scripts were written for the eleven modules, since separate instructions would be required for Macintosh and Windows users in most of the tasks. Screen shots were used in some of the instruction sheets, and each module had an explanatory introduction to orient the new user to the specific tasks to be accomplished and outcomes to be achieved.

Finally, the eleven finished multimedia modules were offered to our teacher participants in two consecutive two-hour hands-on workshops. Internally, we numbered the modules in the sequence listed in the bullets above. However, for our trainees we stressed that the modules all stood alone and could be completed in any order, only adding the suggestion that the Web page and CD-R could most logically be completed last. Each module was tied directly to a single computer, which was configured as necessary with the appropriate software and peripherals (scanners, cameras, microphones).

Four technical support staff members assisted approximately fifteen participants at a time during the two workshops. Although the exercises were designed to allow them to be completed without assistance, we recognized that many of our curious participants would wish to ask questions or discuss how these applications could be used in their own work. It was also necessary to have staff on hand to manage unanticipated technical problems.

Some of the workshop participants chose to work in pairs, but most worked alone. The multimedia module scripts were provided as printed pages at each station. Participants chose the modules that most interested them. Some tasks clearly took longer than others, and of course some trainees needed more time than others, but we roughly estimate that the modules took an average of twenty minutes apiece to complete. In the final module (CD-R burning), the entire set of scripts was provided to each participant.

Without question, response to the workshop was enthusiastic. Verbal comments made by the participants during and after the sessions included the following:

“I’ve never had an opportunity like this before! To be able to accomplish so much in this time period, and realize that I actually can do this stuff, means the world to me!”

“This is wonderful. You don’t realize that we never get training like this! Thank you so much for all you’ve done to set this up for us!”

“I was nervous and wondering if I would be able to follow the steps by myself. I found out that I could, and I did! Thank you!”

We held a “Station Day” for the Education faculty the day after the Instructional Technology Institute, 8 am to 2 pm. Eleven faculty and K-12 methods teachers participated. They enthusiastically completed the modules and went away with a working Web site burned to a CD. Since this group was allowed more time, they were able to proceed at a more relaxed pace and everyone completed the entire set of modules.

As we had hoped, we found that faculty could effectively gain the skills they needed to develop their own multimedia material by following a step-by-step script of instructions. And while the project preparation time was much more than we had anticipated, we feel the time spent
developing the multimedia workshop was definitely worthwhile. Using the finished scripts, we can easily set up the multimedia stations for other training events. This November, UMM Computing Services hosts an Instructional Technology Fair – an all-day event where faculty showcase their work through exhibits and presentations. We plan to set up four or five of the multimedia stations and attendees will be encouraged to sit down for a moment and create digital media.