

Producing Laboratory Procedure Demonstration Videos for Mobile Devices

Your Role

Laboratory procedure demonstration videos for mobile display devices must be carefully planned and executed, and it is highly recommended that you work with someone who is skilled in video production. Your role is to establish the behavioral objectives, and ensure that they are met. At times, you may find yourself at odds with an enthusiastic video producer who wants to add a lengthy introduction, or dazzling special effects. (Students seem particularly keen on this) Your job is to relate every decision to the objectives, and resist any element that does not directly support them. In order to do this efficiently, you must plan thoroughly and communicate with the production team early and often.

Needs Assessment

You may find it helpful to phrase the purpose of the video as a need in a specific group: "Chem 345 students need to be able to correctly load a gel plate".

Audience

Consider the viewer's level of experience with the topic. This will tell you what you can skip and what you may need to go over in more detail.

Objectives

Set VERY SPECIFIC behavioral objectives for the video. This is often expressed as an action verb, a content reference, and a standard of competency.

Once you know exactly what the audience is to be able to do, know, or believe in a measurable way, subsequent planning and editing decisions will be much easier.

Treatment

Generally, it is most efficient to begin by taping the lab in short (6-20 seconds) segments that contain both the real-time narration and the video. The narration tends to be a bit more informal [on the fly], but it's easy to keep the voice and images matched. Another choice is to record the entire narration beforehand, and shoot the video to match. This requires more skill in matching the voice and images, but results in a more polished final product. Our feeling has been that this method is less efficient for lab videos.

Preparation

The lab is a great place to plan your video. Get out all the equipment and do a "dry run", making notes about what you want to say, and creating a list of what to prepare ahead of time. Think about where you will want to stop recording to get a better angle. Consider where the camera should be positioned to get the proper viewing angle. Will your hands be in the way?

Brief notes or an outline can be helpful, but it is generally not practical to read from a script.

The Day of the Shoot

Be prepared to explain your goals in terms that make sense to a camera operator; how close does the close up need to be? What do you want to end up seeing? During the shoot, explain what you will be doing at each step, and do a “dry” run through to practice camera moves and focus. Be prepared to do multiple takes of some shots, and advise the camera operator when this is not practical (due to expensive lab materials, for example) For more shooting tips, see the document “Chem Lab Videotaping Tips” on this site.

The Rough Cut

Ask that the editor offer you an opportunity to critique the “rough cut” (all the shots in order, but without close trimming or effects) Offer input at this time regarding on-screen arrows, titles, or other effects that would help the message. Discuss what you would like to see in the look and feel of the final video. This is a good time to offer input on any transitions (such as a “clock wipe” to show the passage of time) and freeze frames that will help to clarify the message.

The Final Video

Be sure that you are happy with the final video; you may have to live with it for a long time. When you are satisfied ask that the video be compressed for iPod (H.264 and MPEG-4 codecs) Apple also offers some great online tutorials for both Mac and PC users. <http://www.apple.com/quicktime/tutorials/>

Updating the iPods

iTunes is a great tool for updating the content on the iPods. However, when you use the convenient “auto update” feature, it replaces all of the content with whatever is in the library, even if that includes your latest music downloads. In order to include only the lab videos, you should create a separate iTunes Library for lab videos only. To do this, hold down the shift key (Windows) or option key (Mac) when launching iTunes <http://support.apple.com/kb/HT1589>

In order to charge the iPods without updating the content, you may wish to purchase an iPod USB charger <http://store.apple.com/us/product/MB051LL/A> and USB hub.