

Tech Training Videos Made Easy

Lacking the production facilities of a major network needn't keep you from producing quality videotapes, even for the special needs of a technical audience.

By JOYCE A. KOZUCH

One consequence of the video boom is that employers and clients are clamoring for customized training tapes, assuming that the mere existence of home video equipment makes in-house production a snap. As trainers, we know this isn't true, but we still have to try to come up with a winning training package. I'd like to share what I've done when asked to videotape technical demonstrations for organizations without established production facilities, equipment, and staff.

Media selection

Your first step is to determine if a videotape is an appropriate instructional medium for the topic. In the March 1985 issue of *Performance & Instruction*, Renee Von Raamsdonk offers a useful checklist for making this determination. One of the things she asks is whether or not the subject lends itself to visual expression. For each videotaped demonstration a client requests, I ask the following questions:

- Will a written set of procedures suffice?
- Will illustrations, still photos, or slides demonstrate the procedure adequately, or must the learner see movement of people, materials, or equipment?
- Will this be the best or the only way to capture "good technique," whatever that turns out to be?
- Where will this taped demonstration fit in the total program we are designing?

Only when I answer these questions to both my and my client's satisfaction do I proceed. And, if your client hasn't geared up for using video before now, there's one

more question to ask: How hard will it be for an employee to view this tape on an as-needed basis? If the facilities and equipment aren't readily available for individual or group viewing, employees might not use the tape, regardless of its quality.

Quality and cost considerations

Now you must find out exactly what quality videotape your client wants. Will your client be satisfied with less-than-perfect quality? Be certain your client is fully informed about what less-than-perfect means before you accept his or her decision.

In his article in the October 1985 issue of the *Training & Development Journal* Peter Schleger suggests that the client's desired video image determines quality and expense. Begin by talking about who will use the tape and under what circumstances. For example, a taped demonstration for the immediate work unit's use seems to be an ideal candidate for in-house production with limited resources. But will other units want to use the tape when they hear about it? Might your client use the tape elsewhere in the corporation or show it to customers or suppliers? These are questions you have to ask before deciding if the client can afford less-than-perfect quality.

Next you need to estimate the costs of producing tapes in-house. Include the hidden costs of using employees as script developers, talent, and crew. While there will be some costs in these areas if you go outside the organization for production, explain to your client the amount of time and effort an inexperienced production team will require and the potential impact on the unit's regular activities. Compare these costs to reasonable cost estimates of using outside services in whole or in part.

Finally, show the client an example of the quality he or she will get with an in-house production. If necessary, shoot a few minutes of tape with the proposed equipment, site, and personnel to demonstrate the quality of audio, video, and talent you are likely to get. Show how in-camera editing essentially means "what you see is what you get."

Once you've broken down all the quality and cost considerations to your client's satisfaction, your client will be prepared to decide whether or not videotape is the best medium for his or her program.

Where to go for help

If your client gives you the go-ahead for the video project, get some advice both before you begin and after your first attempt. Find an experienced producer of training videos for advice. Unless your advisor is familiar with training issues, you may get inappropriate or even incorrect advice.

After asking around for advice on one project, I found someone who had written a how-to book on home video production, offered a workshop, and was willing to consult for only a few hours. By addressing the potential and limits of my available crew, talent, and equipment, this person gave me advice on how to produce a technical training video inexpensively but well. He was an authority I could cite when I had to educate anyone on site about things like costs and feasibility. And if we would have had to go outside for any of the production process, he would have been a good, familiar backup.

The bare minimum

Now let's look at the basic resources you need to produce a training video on your own. Depending on your situation, you

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may want to modify the following list.

■ **Equipment.** Your equipment should include a camera, a VCR, a monitor, an audiocassette recorder, a microphone, a couple of lights, cables, and a stop watch.

■ **Writing talent.** You need a script writer who is an instructional designer or vice versa. The two are not necessarily synonymous. In his article in the December 1984 issue of *Training* Judson Smith emphasizes that you need to write for the eye and the ear. Whoever prepares your script needs to balance that skill with an ability to design instructional material for technical training.

■ **Camera personnel.** You need as skilled a cameraperson as possible. I found mine in the corporate print shop. If your client suggests someone who is "into video," check that person out before committing yourself. That phrase covers the gamut of experience these days.

■ **Access.** You need sufficient access to the personnel and locations the tape requires. Can people give you the time necessary for developing, approving, narrating, and performing the script? Do they have time to crew for the taping? Your

client won't be aware of the time and effort that go into producing a 15-minute demonstration nor how much time you will require on location to shoot it.

Pretesting

Before you begin preproduction planning, you have to determine the potential and limits of your equipment and personnel. Regardless of what anyone might claim, verify that the various pieces of equipment are compatible, then test to see what they can or cannot do. For example, how hard is it to use the character generator on the camera? Does the audio dub really work? If you're going to prerecord your narration and then add it to the videotape, does your audiocassette player have a "line out" jack?

Shoot a couple of minutes of practice tape on location. This will help you assess your technical crew and determine which employees you want to use as talent. You also will get a good idea of the quality of the audio and video and how much of a procedure the camera can "see." In addition a practice tape will demonstrate the effects of available lighting, noise, and electronic

equipment when you shoot on site. As suggested earlier, you can use this practice tape to give your client some sense of the *technical* quality of the tapes you will produce.

Finally, I recommend that you audition your narrators if you are going to use employees. Call for volunteers. I selected people on the basis of their normal speaking voices when they demonstrated procedures for me on site. But the audio equipment magnified some slight speech impediments that were unnoticeable in ordinary conversation. In some cases I couldn't calm a person down enough to capture his or her usual vitality on tape. I would have found my best narrators a lot earlier if I had held open auditions.

Production

Although you may not have much choice in terms of the resources available to you, the following are a number of ways to maximize their efficiency and effectiveness.

■ **Instructional design for video.** Be aware that there are instructional design concerns not present when designing print

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material. Here the audio and visual components are major aspects and you are trying to *match* them. You must understand well enough the process you are supposed to be taping to match the flow of the narration with the flow of the demonstration. Pay close attention to synchronizing the *timing* of the two. For example, the information you're trying to convey about a particular action doesn't always take the same length of time to narrate as it takes to demonstrate the action itself.

■ **Working with subject-matter experts (SMEs) on video.** Working with subject-matter experts on video differs from working with them on other instructional material. On one project I worked on the SMEs had trouble when developing or reviewing outlines and scripts, visualizing what would occur, and relating the audio and video portions to one another. This made it hard for me to determine whether or not they had overlooked any important points the video was supposed to make. Part of the difficulty was in trying to capture "good technique" with printed words. Moreover, storyboards

the script needed input from more than one work unit and the client wanted to develop performance standards, not just record them. With a preprogram video I could have developed my outline by asking my SMEs and my client what information should accompany specific actions and how they would change what they saw.

■ **Working with audiovisual people who don't have a training background.** Look at your technical crew as human resources you want to use to the best of your ability on the current assignment and develop for future use. If your crew is experienced technically, tell them what you want in everyday language and then let them figure out how to give it to you. Even if you can't explain why a certain technical effect isn't satisfactory, make your crew keep trying until they produce the effect you want.

One way you can help your crew deliver the desired effects is to explain to them the instructional implications of the narration, the actions, the scenes, and the settings. Don't assume nontraining people will necessarily recognize such implications.

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weren't a solution in this context because they couldn't convey the movement central to the procedures involved.

We tried various solutions. We would go on site to talk through or even "act out" an outline or script until we had content we considered quite comprehensive and I considered adequately reviewed. SMEs also showed up for the actual videotaping on location. Before we began, the demonstrator would rehearse to the pretaped narration. The SME would use the occasion to improve on or correct technique. At the same time, the cameraperson set up his shots and the SME was approving my product on the client's behalf. We rehearsed with a live camera and monitor so the SME and I could tell how the final product would look on a screen.

Peter Schleger, in an article in the October 1984 issue of the *Training & Development Journal*, suggests a technique for script development that would have made it easier for the subject matter experts and I to work together. For technical demonstrations, he suggests basing script development on a preprogram video made by going in and shooting the demonstration cold. In this case that would have been efficient as well as effective because

Instructional explanations will broaden their expertise and encourage them to look at their efforts in terms of instructional impact.

If your crew members are interested primarily in the production side of video, give them technical challenges to keep their interest level and performance high. As you know, technical demonstrations aren't always of great interest to the non-practitioner. A strategy I once used was to schedule our six demonstrations so that each succeeding tape posed different and more challenging technical tasks for the cameraperson. Then I described the video problem posed by each script so he would think beforehand about how he would tackle it. I learned a great deal about the potential of video from his efforts.

■ **Using employees as talent.** If you're going to use employees as talent for your videos, again think of them as human resources. Earlier I suggested auditioning volunteers for narrating assignments and prerecording them. Inexperienced performers can be overwhelmed at the thought of explaining and demonstrating a procedure on videotape. Once you grasp the procedure to be taped, look for demonstrators who are capable of deliberate actions. Experienced workers

sometimes find it hard to slow down enough for the camera to catch all their actions.

■ **Balancing your production goals with those of the work units.** When you're going to use so many in-house resources, you must weigh your production needs against the production needs of the work units involved. Always prepare your client for decision making in this area *before* beginning the project. Offer a couple of possible scenarios where you and the work unit both may need use of an employee or a worksite. Then ask what accommodations both sides could make.

Know the location where you'll shoot the tape and how the location operates, then make certain the location knows you and how *you* will operate. Explain what you'll be doing, when and how long you'll be doing it, and how you're likely to affect the unit's usual routine. If you'll need certain pieces of equipment in the demonstration or if you can't use that equipment during taping because of electrical interference, be certain *everyone* affected by your schedule knows this.

Time becomes very important in these negotiations. Find out if there are days or weeks when you can't have access to certain personnel or sites, and build that into your timelines. Be prepared to spend a lot of time scheduling your shootings. You must coordinate schedules for individual talent and crew as well as for the site.

Don't overlook timesavers that can make a difference. Instruct your technical crew and talent to be prepared beforehand so that you can make the most of the time you have in a particular location. If videotaping is a new experience for them, don't assume they'll prepare ahead. When you're negotiating with the supervisors of the sites where you'll be shooting, make certain they understand that taping is a start-stop type of activity. Will this make it possible for you to work around one another so that you get more shooting time on location without disrupting the unit's production?

Recognize that you may have to accept a less-than-perfect shooting under these circumstances. Whenever you must decide on another take or another shooting, do a cost-benefit analysis in terms of your use of the site, the talent, the crew, and the subject-matter expert who is present during the taping.

Taping on location

Once you've got your production details all worked out, it's time to go on site. The following are some things you'll want to

keep in mind if your project is to continue running smoothly:

■ **Safety.** Know the safety rules for the worksite and be certain your technical crew knows those rules. If a location is particularly difficult to shoot in for *any* reason, try to find a logical alternative site and preface the demonstration with an explanation of the usual location where it would occur.

■ **Prerecording narration.** If you're going to tape a demonstration on site using employees as talent, consider prerecording your narration. Not only is this one less thing for your demonstrator to worry about during the taping, but the narration will cue his or her video performance. Prerecording the audio portion of your tape also will eliminate the sound of equipment and operations you can't shut down while you shoot on location. In addition, you can direct and cue the talent and crew, and they can ask questions as the video portion is recorded.

■ **Crew size.** If you're using prerecorded narration someone other than the cameraperson should operate the audiocassette recorder. This is because you must synchronize the narration with the demonstrator's actions. Having tried to be a part of the technical crew and to direct at the same time, I advise that the director be a third person.

■ **Equipment problems.** You may be tempted to use a small, inexpensive monitor when taping on location because of cramped or difficult working conditions. Know that the trade-off will be uncertainty about what kind of video you're getting. You don't want to guess whether or not you're recording the necessary detail or what the tape will look like under expected viewing conditions.

On many production sites, you may not be able to control all the electrical interference, and it even may differ on the same site from one day to the next. Because of this you may not be able to tell if electrical interference is affecting the quality of your audio or video recording until you play back the tape elsewhere. When there is some question about interference, play back the tape off-site before shutting down for the day.

If you're using electrical equipment in the demonstration, test the demonstration on tape to see if simulation is necessary to avoid distorting the audio or video during recording.

■ **Technical demonstrations.** I have two final suggestions for a better video product. First, if a procedure involves clear liquids, tint them so people viewing the

tape later will be able to see the process well. Check beforehand to verify that tinting will not damage the apparatus or equipment involved. And don't forget to have the narrator tell the trainees what you did.

Second, find out *before* you finalize the script whether your demonstrators will use especially old or new equipment or instruments for the taping. People may want to do so for economical or cosmetic

reasons. Ask if this will throw off the pacing of the process as you have observed and scripted it. You may have to adjust the timing of the audio and video portions of your script accordingly.

Following all the precautions I've suggested won't enable you to put rock videos to shame. But you *will* have an economical and effective training tool that everyone from client to crew will be proud of.



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