Penelope Kriese

# Training by Television

## By Dale A. Johnson

Between 1970 and 1975, the U.S. Army spent more than $6 million on largely unsatisfactory communication efforts. The Army Training and Doctrine Command (TRADOC), based in Virginia, was in dire need of an effective means of interacting with its personnel. It had a continuous influx of new officers who needed training. Existing personnel needed retraining. And hundreds of remotely located regular Army, National Guard, and Army Reserve units needed massive amounts of information on requirements, procedures, and evaluation techniques to be used in Army training exercises.

TRADOC officials hoped that telecommunications via taped and live-satellite circuits would provide an effective, cost-efficient training and communications link. But extensive experiments showed that the use of televised broadcasts to distribute training and information did not work. The sessions did not improve learning efficiency, in part, because they allowed viewers to just sit back and "watch television." In addition, TRADOC officials felt that the learning benefits of having instructors work face-to-face with training officers outweighed the cost savings realized through the one-way satellite delivery—in effect, nullifying the telecommunications effort.

Maintaining an active training and communications link had become a managerial and financial nightmare. TRADOC decided to discontinue the use of telecommunications as a primary training medium.

### A second try

In 1983, the Army decided to try television again. With the help of Centex Inc., a communications company in Williamsburg, Virginia, TRADOC officials began to reexamine both the methods used to design telecast programs and the effect of those designs on viewers.

To show the effects of different presentation methods, Centex conducted a brief experiment on a group of Army and National Guard officers. A camera captured their reactions as they viewed two 15-minute televised segments on the legal aspects of being in the National Guard. In the first segment, the presenter delivered a straight lecture. "The viewers visibly sat back in their chairs," the presenter said later. "One guy got up to get a cup of coffee. Another guy was talking to somebody else during the lecture. They really weren't with me. In essence, I was just a talking face."

In the second segment of the broadcast, the presenter began interacting with the viewers, giving them instructions and speaking to them as if they were in the same room. "The change was visible," said the presenter. "All of

*Military personnel are watching more television these days, but those aren't "Gomer Pyle" reruns on the screen. After years of searching for an effective way to get audiovisual training to remote sites, the U.S. Army found a presentation method that works.*

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a sudden they were sitting forward in their chairs. They were writing and listening to everything and following along. They were allowing me to 'orchestrate' their 'thinking' and 'doing' activities."

When the presenter finished, he showed the officers the tape of their responses. "In the first segment, they could clearly see that they were acting like their troops had been acting during lectures—not very attentive. But they saw that when I put them through the second segment, they were with me on every word and seemed to get much more out of the material. They could see for themselves the difference in delivery methods."

## The talking face

Many trainers use the "talking face" presentation method when facing the camera. They look directly into the camera lens and verbally relay informa-tion. They assume that watching and listening will result in thinking and comprehending on the viewers' part. They spend at least 90 percent of their preparation efforts on designing and delivering the message, and give little thought to what happens at the other end of the signal.

Such a delivery method is fine when the information presented is compelling in itself—say, information that is critical to national security. When the information demands attention, viewers are likely to pay attention. But as the Army discovered, when the information is fairly dry, that method often fails to involve the viewers. Similarly, businesses that use such a method to describe how to file customer-relations data or to describe the demographics of a market segment, for instance, may find the results disastrous. Viewers tend to sit back and "watch television" (or more likely, their eyes just glaze over). Nothing in the the presentation method requires or encourages them to do anything more.

Today, most television programming directors realize the dangers of the "talking face" on camera. Many try to avoid that syndrome by emulating the large production networks. They build extravagant studios, complete with computer-graphics technology; they choose presenters or instructors who have "charisma" on camera; and they hire script writers to add program "magnetism" that will keep viewers interested and attentive. However, just because viewers turn on the television, (be they Army officers or corporate employees), that doesn't mean they necessarily begin learning.

## The orchestrated response

The second delivery method incorporates most of the production and delivery aspects of the first method, with one important difference—involvement. Presumably, if presenters increase their levels of involvement with viewers, the viewers' concentration on the medium and the material being presented will also increase.

Method two calls for an almost complete rethinking of televised communications. It assumes that learning occurs not on the production end of the signal, but on the receiving end. And it assumes that understanding takes place not while viewers watch and listen, but while they are mentally immersed in the information. Further, understanding occurs only to the extent that viewers feel involved with the information (a condition that is not generally accompanied by glazed-over eyes).

Method two requires that the presenter take a different role. In the past, companies simply let their best presenters "act"; the new method requires the presenter to consider the viewers' activities first. The presenter focuses on the viewers' involvement by first asking

■ What activities do viewers need to think about and do to reach the comprehension goal that I have established?

■ What audio and video signals must I produce to guide or "orchestrate" the viewers' thinking and doing, in order to reach the goal?

During the broadcast, the presenter transfers the "thinking" and the "doing" to the other end of the signal.

| A three-column program script | | |
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| **Video** | **Audio** | **Viewer activities** |
| Close-up, instructor<br><br>Character generator: "Increase your familiarity with the PP-987 output voltage circuit diagram" | "Hello: My name is Bob Jones. The objective of today's session is to familiarize you with the diagram of the PP-978 output voltage circuit." | Students view instructor<br><br><br><br>Students read goal statement |
| Close-up, instructor<br><br>Close-up, diagram | "Let's begin by finding the diagram among the handouts at your sites." | Students find diagram among hand-out materials |
| Close-up, instructor<br><br><br><br><br><br><br><br><br><br>Overlay flashing: "be prepared to respond" | "I'm going to talk you through the circuit as it is described on the chart. When I'm through, I will ask you to work through the diagram with different voltages. When you have finished, I will call on people to talk back the inserts that they have made on the diagram." | Students listen to instuctions |
| Close-up, instructor<br><br>Chart number 1, space number 1 | "Let's get started. On chart 1, in the space marked '1,' write '15 volts' on your copy. As you can see, the circuit is connected to a 15-volt battery." | Students listen and write |

Then, as a group, the presenter, director, and control-room technician determine the audio and video signals that will logically guide the viewers through a step-by-step progression of activities, toward an established comprehension goal. The communicating process is considerably more structured than in the "talking face" method, but it significantly increases both parties' levels of involvement—thus making the production and the delivery more interesting and less one-sided than the "talking face" method.

A typical introduction to a presentation: "Our goal today is to help you prepare demographic profiles of your Army recruits. During this program, I am going to ask you to work along with me. I will give you time to complete each section as we go along and will ask questions regarding certain procedures to make sure you are keeping up with the material. The first thing I want you to do is to take the worksheet in front of you and write your name and today's date on it. Then divide the sheet into three columns...."

The level of interaction between presenter and viewer also changes. During the televised session, the presenter listens to audio feedback from the viewers for clues as to whether they are following the orchestrated design. The presenter adjusts subsequent presentations accordingly. For instance, if viewers are taking more time to complete a certain section, the presenter correspondingly builds in more time during the next session.

Some presenters ask during the lecture whether viewers have questions and urge them to telephone the broadcast station with those questions. Other presenters incorporate an almost discussion-like atmosphere into their delivery—asking a question and pausing for the viewers to consider it before going on in the presentation. As presenters become more familiar with the orchestrating method and more attuned to the needs and thinking processes of the viewers, they will require less and less feedback to find a design that works.

Two key parties need to understand and practice the orchestrated presentation: the presenter and the production director. Most presenters still feel they can "persuade" viewers into understanding the message. Production directors tend to focus on the pro-

duction end of the process and sometimes forget about the activities at the receiving end of the signal. The orchestrating method requires both parties to reevaluate their thinking.

Viewers, on the other hand, do not need to practice. They are ready to feel a sense of involvement in the televised program and will welcome both the activity and the sense of accomplishment that comes when they have completed the prescribed materials.

## Designing the program script

The two most important components to establish when designing the program script are the comprehension (or content) priorities and the reinforcement activities.

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The content priorities are the issues, facts, and information components that must be delivered to reach the comprehension goal. The presenter (or, in some cases, the program designer) first determines those issues and ranks them in descending order of importance. Next, the presenter analyzes the list of priorities in terms of the following parameters:
■ Which priorities are most difficult to understand?
■ Which priorities are most difficult to explain?
Using the answers to those questions, the presenter then designs the orchestrated program script, beginning with the highest priority and working down. The next step is to establish reinforcement activities—specific thinking and doing activities that will guide the viewer along the orchestrated process.

A reinforcement activity might call for viewers to read a short segment, divide into small groups for discussion purposes, complete a worksheet dealing with a content issue, or complete

a combination of activities. Issues that are more difficult to understand or more difficult to explain may require combinations of activities. A simpler issue may require only a single activity.

As presenters become familiar with the orchestrating procedures, they become familiar with the reinforcement activities that work, in theory and in reality. For instance, a presenter might use four reinforcements to explain the correct way to fill in a single blank on a form. Why? Based on experience, the presenter may know that without a clear, concise response to that particular blank, the subsequent information would be useless, and that in the past, people have been confused about how to complete that part of the form.

## Delivering the program

One significant plus of the orhcestrated delivery method is that after a single practice session (usually to assess the amount of time required to complete the activities), most presenters can handle many more viewers than they could with the "talking face" method. Here are some additional guidelines for an effective delivery:
■ Seldom should the presenter talk for more than two minutes, unless viewers understand that the information applies to a subsequent activity.
■ The presenter should avoid anything (audio or visual) that might distract viewers from the orchestrated message or allow them to sit back and "watch television." Extravagant graphics, unusual dress, and many of the common attention-getting physical movements that television personalities use can draw the viewers' attention to the peripheral aspects of the production process—and away from the information being presented. The less viewers are aware of the production process, the more successful the orchestrated design will be.
■ The presenter should get the viewers physically involved in the program within the first minute. Viewers need to understand that they are responsible for part of the program, whether it is preparing a worksheet, finding on-site program materials, or choosing a discussion leader at a remote site.
■ The presenter should set a time limit and should push viewers to complete the chosen activities within that limit. With a little experience, the presenter will learn how long it takes to complete

certain activities. The presenter can capitalize on the fact that he or she is not at the receiving site by keeping up the pace and not allowing viewers to slow the program down.

■ When preparing a program for network distribution, a three-column script is more effective than the usual two-column script with columns for audio and video elements. The third column is used to list "viewer activities" to indicate what viewers should be thinking about and doing to achieve the comprehension goals. Working backward, the presenter should design elements in the audio and video columns that are dependent on the activities column (see the box).

## A successful application

Using the orchestrated presentation method, the Army's return to television as a training and communications medium was successful. Centex worked with TRADOC to develop an on-air presentation that enhanced viewer involvement and comprehension. An 800-hour training program helped Army telecommunications personnel learn to use the satellite, land-based microwave, and high-speed telephone circuits—technology that was already available to the Army.

Today, signals originate at the Virginia training center and are transmitted to numerous distant sites. Two satellite uplinks allow simultaneous broadcasts to transmit information and training continuously. The Army often uses telecommunications as a prelude to on-site visits, for instance, to distribute large amounts of data to Army personnel before a face-to-face visit at headquarters. Savings in time, salary, and transportation are only a few of the benefits of telecommunications. Most important, comprehension and learning efficiency among Army personnel have improved dramatically, thanks to the use of the orchestrated presentation method.

## The receiving end

As a design methodology, the orchestrating process shifts the focus of the viewer away from the entertainment aspects of the television production, and instead encourages maximum concentration on the learning content. Presentation specialists are finding that the design skills applied in the orchestrating process also apply to other telecommunications media, including teleconferencing, videotaped programs, and training sessions communicated via satellite.

With interactive television, companies need not purchase computer graphics, three-camera-shot capability, or even color broadcast technology. Nor should they assume that they need highly charismatic presenters. With the orchestrating method, the thinking and doing activities of the viewers are the most important elements.

The Hollywood view of the television industry, complete with celebrities, grand scenery, and well-written scripts, is incomplete. The television medium comprises three components—production, transmission of the signal, and delivery on the receiving end. When presenters consider the receiving end before they consider the production end, television can be a highly effective communications medium.