

How Video Can Help

Video can be an integral part of your training effort. The research is here to show you how.

By DAVID R. TORRENCE

If you're still unconvinced that video is a valuable training medium, take a look at research done on learning and training effectiveness. You'll find video meets the rigors of good design and affords learners a comfortable way of receiving new information.

Video provides for learners of different styles. There are "visual" or sight-oriented learners and "aural" or sound-oriented

Third and probably most important is society's general acceptance of television as the standard communications medium. Learners expect information from television. As the printed word was the primary medium of learning for previous generations, for a broad segment of today's workers television is the primary medium of learning. As a training tool, it is highly effective.

are!" response is a strong, positive psychological motivator. Further, use of your house "logo" or trademark aids in product-consumer identification.

Whatever your program source, the ultimate question must be: Does the presentation address the instructional objectives? Here, medium is important. Research exists for designing or reviewing video productions for their probable training effectiveness.

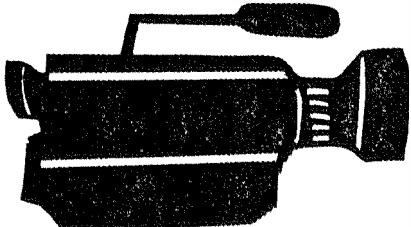
Extensive research was conducted during World War II on the use of motion pictures in training. Because motion pictures and video have similar output, we can extrapolate these findings for television. To this, we can add the substantial amount of research conducted on learning from video itself. The first several of the following findings can be used as data to substantiate the use of video as an adjunct to a comprehensive training program.

Video can teach nearly any subject where one-way communication will contribute to learning. Because television is both visual and aural, it can be used to teach any subject not limited to perception by other senses.

Video is most efficient when it is part of a sequence of well-planned and structured learning activities focused on a recognized problem. Video is no panacea. More than good video training tape is necessary.

Use the following findings to evaluate design elements and presentation conditions that promote effective learning.

The "subjective" viewing angle is more effective in teaching technical skills. Instruction in "perceptual-motor" skills should be presented as they're seen through the eyes of the "doer." Avoid simply entertaining. The "don't tell them, show them" strategy, while effective, does not go



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learners; some learn from reading, some from demonstrations, some from lectures and so on. Because both visual and aural learners benefit from video instruction, it should be considered an essential training medium.

Moreover, the relative cost, simplicity and availability of the equipment required for receiving or producing video information are attractive. TV receivers are now virtually everywhere. Electronic reproduction has reduced cost and complexity to a point where, with a minimum investment, one can produce a video with a level of sophistication. With the quality of non-broadcast equipment improving and the relative price actually declining, video's cost effectiveness for training extends its use.

For the trainer, video training productions are normally off-the-shelf, custom-made or "in-house" productions. Off-the-shelf productions provide strong video quality. Many major film studios and publishing houses are producing training and development video programs. Specialized production companies, too, with limited offerings, offer excellent video quality. However, off-the-shelf, commercial training videos often must deal with a topic in general terms to appeal to the widest possible market.

Both custom-made and in-house video productions allow obvious tailoring. Specific training equipment and procedures can be presented. Learners are not required to make the mental transition from the generalized learning situation of the commercial program to the real job situation. By showing real situations and familiar faces, productivity may be increased. Not only is credibility established, but an "Oh, there I am; there you

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far enough. Emphasize showing tasks as trainees will see them.

Overproduction can diminish learning. Don't get carried away. Excessive artwork and imagery can affect learning negatively. Unnecessary cues only cloud the information. Keep in mind: The purpose of the video production is to convey information; not to win an art award.

Humor or animation is not essential. There is no consistent evidence that learning is enhanced by either humor or animation. Too often, trainers feel compelled to use sitcoms as a guide in designing instruction. It's a poor format. What's more, humor tends to be perceived differently through time and across cultures. I painfully watched a group of Japanese middle managers view a training tape that presented a serious safety procedure using 1960, *Laugh-In* humor, complete with canned laughter—a clear example of humor used for the wrong topic with the wrong audience.

Use realistic models. Learning is impaired when actors and actresses are unrealistic for their parts. Someone who does not fit trainees' predetermined mental images is rejected as an unlikely source for credible information or role modeling.

Use subtitles and repetition. Both subtitles and a reasonable use of repetition improve learning through video. Subtitles add written-word or digital cues. Repetition offers reinforced, real visual cues or iconic cues. While they can be overdone, both cues enhance learning. Superimposition (placing a printed or digital word over an iconic image) is one effective video technique.

A planned break in the program can improve learning. While asking questions in a video production does not seem to improve learning, a pause inserted in the production for the trainees to "think" about the question does. Exposure to a question does not promote the mental activity of providing an answer. The planned break does. Educational research on providing "wait time" after questions further supports this technique.

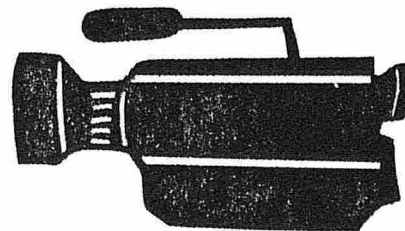
Use teaching strategies that parallel the expected employee behavior. If the task will require problem solving, give trainees practice by using problem-solving instruction. It will be more effective than lecture format. Videotaping a lecture is not only a poor instructional strategy, it's an inappropriate use of video.

Do not encourage note taking. Note taking, while viewing instructional television is likely to interfere with learning if the program provides no time for it. Note

taking disrupts the serial motion and visual cues provided in the production. If learners must have a summary of the instruction, provide one. Remember, you are training them for a specific organizational function, not for taking notes. Don't create an artificial and unnecessary distraction.

Provide "feedback" as soon as possible. A trainee viewing instructional video will learn more if the program provides feedback on the correctness of answers. Even knowing that he or she is wrong can be positive. Said Dr. Carl Rogers, "The data is always friendly." Structure the learning situation to provide feedback as soon as possible. The efficacy of video training is increased when it's integrated with other learning activities.

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can affect learning negatively



Provide motivation for learning. Support your video training through motivation programs. While video can be used effectively for motivation, the ability to overcome a lack of motivation is not implicit in the medium. Assess your audience's motivational level and prepare them in advance of the video program.

Be sensitive to the size of the image and viewing angle. Accurate perception is an important part of the learning. A wide-viewing angle and long-distance viewing will interfere with learning from instructional television. The optimum viewing area is 12 screen-widths deep within a cone of 60° extending from the screen. While some deviation from the standard is harmless, significant loss occurs if the cone of viewing exceeds 60° or the content requires close visual scrutiny.

Do not put an arbitrary limit on the number of viewers. Instructional television is equally effective with small or large viewing groups. Any size limitation may be more a function of the learning facilities, rather than a limitation of the medium itself. Be concerned with physical comfort and viewers' ability to see the screen, but do not be overly concerned with the size of the audience.

Minimize visual and auditory distractions. Some trainers assume that image brightness and amplified sound can

overcome competing sights and sounds. The data do not support this position. Trainers should be as sensitive to distractions when using television as they would be when using any other teaching medium.

Use available data. All decisions should be data based. Decisions regarding the design, development and use of video training should be based on research. Good information helps maximize effective learning and minimize training costs. Research on nearly every conceivable aspect of the effect of video training is available. Trainers who use video should conduct their own in-house research and share their results and conclusions with colleagues. Through research, we can ensure effective video training.

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