

# Assessing the Effectiveness of a Psychodrama Training Video

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**ABSTRACT.** The effectiveness of learning psychodrama, a group psychotherapeutic process, through video, a two-sense modality, was tested on college undergraduates,  $N = 99$ . The students were randomly assigned to one of four groups. Five predictions were made: (1) Those in the the video-training group involving demonstration and narration would attain better results in learning action techniques relative to other groups; (2) members of the video-training group involving demonstration and narration would achieve superior results in learning action techniques relative to the other two training groups; (3) those in the video-training group involving demonstration alone would be superior to the written-performance group in the learning of action techniques; (4) the group receiving the video training (demonstration alone) and those receiving written instruction would be better at learning action techniques than the group receiving no video presentation or written instruction; and (5) the group receiving no video presentation or written instruction would learn action techniques at chance level. After each group was exposed to its respective condition, a written multiple-choice instrument measuring knowledge of psychodrama theory and techniques was administered. Planned contrasts using one-tailed  $t$  tests indicated significant effect for the video teaching approach ( $p < .01$ ). These findings support the predictions made indicating video would be an effective tool for teaching action techniques. The training video is entitled "Basic Theory and Techniques of Psychodrama."

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FILM AND VIDEO are accepted, commonly used techniques in education and training. The effectiveness of learning through film or video has been tested, and the tests provide evidence that these methods are valuable tools in education (Arnspriger, 1933; Reid & MacLennan, 1967). Most research addresses the effectiveness of film or video compared with in-person, face-to-face teaching (Bundy, 1960; Meierhenry, 1952; Murphy & Gross, 1966; Reid & MacLennan, 1967; Street & Foot, 1989). Little research, however, has been conducted to compare film or video with other teaching methods, such as reading or discussion.

Although film has been used for decades as a means of communication, it is a costly and cumbersome technology (Berger, 1970). During the years fol-

Following World War II, television emerged as a modern equivalent to film. Its success altered America's leisure-time patterns almost overnight (Murphy & Gross, 1966). The development of video technology is a direct result of the public's widespread acceptance of television.

Video as a method of communication allows both permanent recording and immediate playback of information. It is relatively inexpensive, compared with film, and is recognized as a major contribution to the development of science.

### **Historical Background of Visual Instruction**

Attempts to use moving pictures as a training tool date back to World War I. However, it was not until the outbreak of World War II, which brought with it an urgent need to rapidly train thousands of men, that moving pictures were extensively employed as training tools (Miles & Spain, 1947). As of 1945, there were approximately 9,000 training films available from the armed forces (Miles & Spain, 1947).

During the mid-1950s, video was tested throughout the country as an instructional tool. These tests were conducted in response to an acute shortage of teachers and classroom space. Video was used to teach art, music, French, and mathematics. From 1956 to 1961, the Electronics Industries Association and the Fund for the Advancement of Education experimented with video as a training tool in the school district of Washington County, Maryland (Murphy & Gross, 1966).

In industry, the Sperry Corporation found that training time was reduced by 50% as soon as the company incorporated video into its program. Moreover, video training has the advantage of delivering consistent information (Cartwright, 1986).

Since the 1970s, the use of video training has increased dramatically in all aspects of society. Today, training videos are widely used in government, health care, education, and industry. And now more than 400 institutions in 40 states offer at least one course by video, and half a million people in the United States use video courses to acquire an education (Zoglin, 1984).

### **Learning by Means of Visual Instruction**

Learning theory states that our memory for pictures is better than our memory for verbal names of those pictures (Postman, 1978). According to Paivio (1978), any given stimulus can be encoded in our memory verbally or visually or both verbally and visually. The type of encoding is dependent upon the nature of the task and the information presented. Paivio's theory, the dual-trace hypothesis, argues that pictures are better remembered than words. The theory states that words are coded verbally, whereas pictures are coded both

verbally and visually. The ability to react to and understand information is greatly expanded when the information is presented through both visual and auditory means (Berger, 1970).

Presentation of information in a training video must acknowledge the classic concept of learning: learning through comparison and analogy (Berger, 1970). Videotape training programs must present complex information in a manner that is clearly understood and meaningfully retained.

Studies conducted from 1931 to 1991 have yielded results that imply that the use of two-sense modalities, such as film and video, are more effective tools for learning than one-sense modalities. The two-sense modality has been supported by Clark (1983) and Tannenbaum (1956). For our study we developed and created a psychodrama training video, called "Basic Theory and Techniques of Psychodrama," and introduced it as a medium for classroom/training instruction.

## Method

### *Participants*

College freshman ( $N = 99$ ), both male and female, participated in the study. The students could terminate their participation at any time without penalty.

### *Instrument*

We designed an examination of 25 written multiple-choice questions and employed it as a postinstructional measure of psychodrama theory and techniques.

### *Design*

The students were randomly assigned to one of four groups: Group 1 ( $n = 25$ ) received the video presentation of an actual psychodrama combined with narration; Group 2 ( $n = 24$ ) received the video presentation of an actual psychodrama without narration; Group 3 ( $n = 25$ ) received written information containing basic theory and techniques of psychodrama but no video presentation or narration; and Group 4 ( $n = 25$ ), a control group, received no video presentation or written instruction and responded to the multiple-choice test. The written information presented to Group 3 was the same material narrated on the video.

### *Procedure*

The video and psychodrama training groups (Groups 1 and 2) received instruction through videos. Another group (Group 3) was allotted 30 min to

**TABLE 1**  
**Means and Standard Deviations for Groups**

Statistic	Video with demonstration and narration	Video with demonstration alone	Written instruction	No video presentation or written instruction
<i>M</i>	14.16	10.50	10.76	7.60
<i>SD</i>	3.02	3.00	4.14	3.07
<i>n</i>	25	24	25	25

**TABLE 2**  
**Planned Contrasts Corresponding to Predictions Along With Significance of *t* Tests**

Contrast	Video with demonstration and narration	Video with demonstration alone	Written instruction	No video presentation or written instruction	<i>t</i> (95)
1	1	- $\frac{1}{2}$	- $\frac{1}{2}$	- $\frac{1}{2}$	5.87*
2	1	- $\frac{1}{2}$	- $\frac{1}{2}$	0	4.31*
2	0	1	-1	0	-.27
4	0	$\frac{1}{2}$	$\frac{1}{2}$	-1	3.70*

\**p* < .01.

read a text. The text consisted of psychodrama theory and techniques. The theory and techniques were also presented in various forms in the video training groups' videos. A control group (Group 4) had no video presentation or written instruction. All groups were instructed not to take notes on the presented material. After each group was exposed to its respective condition, the groups were administered a written multiple-choice instrument measuring knowledge of psychodrama theory and techniques. All students were debriefed upon completion of the test. We produced the training tape used in this study by using the television facilities at West Chester University. The video is intended for training in psychodrama, group processes, and sociometry and establishes the root of theater as a medium for communicating ideas, thoughts, and feelings to significant other people. By watching the video, students can see illustrations, through an actual psychodrama session, of the five structural and three process psychodramatic components. The techniques demonstrated and

explained are roleplaying, role reversal, doubling, future projection, soliloquy, the central concern model, action sociometry, and the divided needs spectrogram.

### *Predictions*

Because of the effectiveness of film and video as a training aid, we predicted that our study would demonstrate the following:

1. The group receiving video-training that involved demonstration and narration would achieve better results in the learning action techniques relative to the other groups.
2. The group having video-training involving demonstration and narration would yield superior results in the learning action techniques relative to the other two training groups.
3. The group trained with the video of a demonstration alone would receive a higher rating in the learning of action techniques relative to the written instruction group.
4. The group that watched the demonstration-only video and the group that received only written instruction would achieve better results in the learning of action techniques than will the group receiving no video presentation or written instruction.
5. The group receiving no video presentation or written instruction would perform at chance level.

### **Results**

A preliminary analysis was done to examine the reliability of the test. The internal consistency values (K-R 20) for the four groups were: video demonstration and narration (.45), video demonstration alone (.45), written instruction alone (.68), and no video presentation or written instruction (.50).

The predictions made are shown in Table 2 as planned contrasts. The planned contrasts were evaluated using one-tailed *t* tests. The error term for the *t* tests was derived from a one-way analysis of variance for the four groups. Because four contrasts were being tested, we decided to test each contrast at the .01 level of significance so that the overall level of Type I error for the four contrasts would not exceed the .05 level.

Tables 1 and 2 present means, standard deviations, and results of the *t* tests. As can be seen from Table 2, Predictions 1, 2, and 4 were supported. Prediction 3, however, was not supported.

Prediction 5 was tested by comparing the mean of the group receiving no video presentation or written instruction against a value of 6.25. This value is chance level performance given a 25-item test with four options. This expect-

tation was not borne out, as revealed by a two-tailed  $t$  test,  $t(1, 24) = 2.19, p < .05$ ). The results can be summarized as follows: (a) The group trained with the demonstration and narration video was better than all other experimental groups; (b) the group that watched the video with demonstration and narration proved superior to those that saw the demonstration alone and those that had only written instruction; (c) the group that saw the demonstration alone did not differ significantly from the group that received only written instruction; (d) the group that saw the video demonstration and the group given written instruction performed significantly better than the group receiving no video presentation or written instruction; and (e) the group receiving no video presentation or written instruction performed slightly better than chance.

### Discussion

Previous research indicates that significant differences in learning occur when groups are presented information in different formats, such as video training versus written instruction (Fox Film Corporation, 1931; U.S. Army Air Force, 1945; and Williams, Paul, & Ogilvie, 1957). People learn 10% of what they read, compared with 50% of what they see and hear (Dwyer, 1978). The findings of this study support the literature advocating the use of video as an effective training tool.

Test results indicated that those trained with a video involving demonstration and narration learned more of the group-action techniques. Planned contrasts using one-tailed  $t$  tests and a two-tailed  $t$  test revealed significant differences providing support for four of the five hypotheses. The marginal difference in means between Groups 2 and 3 appear perplexing but can be explained in the following manner. An item analysis indicated that Groups 2 and 3 responded correctly, but to different test questions.

Learning group action techniques through video training consisting of demonstration without narration did not prove to be the best method. Reading written material containing all the information necessary to respond correctly to the posttest questions was also not the best method of training. Although Groups 2 and 3 both learned as a result of their methods of instruction, Group 1 learned twice as much as either group.

We concluded that training in group-action techniques is most effective when it is presented in a video format (two-sense modality) and consists of demonstration and narration. The psychodramatic modality rests on individuals' spontaneity. Pausing throughout the session to explain the technique(s) used and the effects of group processes causes participants to lose the spontaneity and continuity of the psychodramatic process. The videotape that presented a demonstration of and a narration about group processes avoids this pitfall.

The results of this study encourage us to use a video to teach action techniques. Of course, certain limitations need to be addressed:

1. There are some weaknesses inherent in the video medium. Video training tools cannot give specific and direct personal help, answer questions, or detect confusion. Quality training videos must be produced with specific emphasis on the following multimedia criteria.

2. The instrument used to measure students' learning of action techniques needs to be tested further for reliability. We realize that the instrument was difficult because the highest score was 56%. The difficulty of the instrument is also indicated by the fact that it is possible for student performance to improve if the students viewed the video twice.

3. The participants in our study were a somewhat homogeneous group, consisting of college freshmen. We recognize that a cross-section involving people of various ages and educational levels, containing various professionals, nonprofessionals, and students, should be incorporated.

Overall, this video is a theoretical and applied video that can easily be separated into three 20-min videos instead of one 1-hr video. Having subjects view three shorter videos on separate occasions, we think, would allow for increased concentration and a greater attention span. We have concluded that when the weaknesses are recognized and the advantages are stressed, film and video are effective tools in education.

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