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ABSTRACT

A study sought to discover if college professors could be re-educated in the use of broadcast media for enriching lecture class periods and student assignments. The professors took a pretest, studied the specialized learning needs of urbanized students, the advantages of using video tape recorders, and how to operate a video tape recorder and took a posttest. Although few faculty members participated in the study, those who did were able to learn about the use of videotape recording techniques to improve their lectures. (JK)

TRAINING COLLEGE PROFESSORS IN THE EDUCATIONAL USE OF BROADCASTING MEDIA

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INTRODUCTION

Background and Statement of the Problem

The student body compositions of most colleges are in a period of rapid change. From predominantly white, middle-class, suburban compositions, they are becoming more racially integrated and are drawing from more highly urbanized areas. Due to the E.O.E. provisions and state tuition grants, the economic status of the urban student body is tending toward lower socio-economic brackets.

The lecture method of teaching in the college, however, is still a persistent phenomena, although it has been well established that:

1. In lower socio-economic areas, students tend to have "restricted" language behavior (Berstein "Social Class and Linguistic Development: A Theory of Social Learning.")

2. There is a definite relationship between language structure and thought process.

Vera John and Lee Goldstein in their research study, The Social Context of Language Acquisition, state as a sub-conclusion, "The role of more impersonal sources of communication, e.g. television and radio, has become increasingly important in the urban child's acquisition of words."

Although the college teacher need not be a PRODUCER of TV or professional Radio programs, he could use them to advantage with his increasingly technologically-oriented, urbanized, and "language restricted" student groups.

This study had for its purpose, therefore, to discover if college professors could be re-educated in the use of broadcast media for enriching lecture class periods and student assignments.

Related Research

Very much research has been done which underlies the need for the use of Educational Media in the classroom: e.g., Travers: Research and Theory Related to Audiovisual Information Transmission. There is, also, an increasing amount of literature on the use of the Video Tape Recorder

in teacher education: e.g., Dwight Allen, Television Recordings: A New Dimension in Teacher Education. There is, likewise, a vast array of researched-derived information about the effects of mediated teaching on the learner: e.g., Husband, Television Versus Classroom Learning for General Psychology.

In searching the literature, however, there is no published evidence of research with respect to the re-education of college professors in the use of Broadcast media for the purpose named above, that is, for enriching lecture class periods and student assignments. This study had for its objectives, therefore, to discover if college professors can be re-educated in

1. A knowledge of the learning needs of urbanized students
2. A knowledge of the advantages of the use of the Video Tape Recorder as: mirror, time machine, medium of exchange, and other uses.
3. The operation of one or more of the college-owned Video Tape Recorders, that is, Ampex 5000, Roberts portable 1050V, Panasonic Tape-a-Vision.

PROCEDURES

The design proposed and carried out was a one-shot pretest-posttest type (O X O). A three phase purposive sampling was conducted. The first phase consisted of the distribution of a "motivating" questionnaire to every faculty member (60). (See Appendix) Twenty-eight of these were returned in the affirmative. Fifteen were returned expressing their interest and appreciation but their inability to participate. A pretest was then distributed with a return envelope to each of those who intended to participate. The pretest consisted of items basic to both theoretical knowledge of use and practical items for operation (See Appendix) A small manual previously purchased was distributed to each person who returned the completed pretest. The number of participants had now dropped to twelve.

On the specified day, the principal investigators set up all the available equipment and were both in attendance from 9:00 A.M. until 4:00 P.M. to instruct in the operation of the video tape recorder equipment.

The instructional materials and procedures consisted of the basic hardware itself, the manuals provided, a prepared set of individualized charts which could be used later in an autoinstructional manner, and individualized operations of both cameras and video tape recorders. For this procedure, seven faculty members participated.

Three days after the instruction, the seven faculty-students of VTR were asked to retake the pretest. The time lapse was allowed in order to test retained knowledge, The following table (Table 1) lists the pretest-posttest scores and their differences.

TABLE 1

PRETEST-POSTTEST SCORES AND THEIR DIFFERENCES

Student	Posttest	Pretest	D	D^2
1	25	7	18	324
2	25	5	20	400
3	28	12	16	256
4	31	9	22	484
5	32	18	14	196
6	32	20	12	144
7	28	19	9	81
n=7	X=201	Y=90	D=111	D^2=1885
	$\bar{X}$=28.7	$\bar{Y}$=12.8	$\bar{D}$=15.86	

A t test was applied following the procedures to obtain the significance of difference between the Means of two small correlated samples as outlined by G. Milton Smith in his Text: A Simplified Guide to Statistics for Psychology and Education, Fourth Edition.

$$\bar{D} = 15.86$$

$$d^2 = 124.86$$

$$s_{\bar{D}} = 1.72$$

$$t_{obs} = 9.22$$

$$t_{.002(6df)} = 5.21$$

The scores for the posttest differed significantly from the scores for the pretest at better than a .002 level of significance.

RESULTS

Although, as was expected, very few faculty members availed or were able to avail themselves of the opportunity to be updated in the educational use of video tape recorders, the seven who did so, demonstrated that it is possible to achieve the objectives stated.

1. A knowledge of the learning needs of urbanized students.

2. A knowledge of the advantages of the use of the Video Tape Recorder as: mirror, time machine, medium of exchange, and other uses.

3. The operation of one or more of the college-owned Video Tape Recorders, that is, Ampex 5000, Roberts portable 1050V, Panasonic Tape-a-Vision.

The trainees also indicated on an interview basis some of the ways they would use the equipment.

1. Evaluation and quality control in practice teaching in the education department.

2. Evaluation of interviewing technique in the sociology areas.

3. Close up demonstrations of details for large groups in the biology classes.

4. Taping the play of young children for viewing by college students in the Child Training division.

5. Giving children the opportunity to view themselves in particularized activities, also in Child Training Division.

This study does indicate, therefore, that there is a possibility of training college professors in the educational use of broadcast and other types of instructional media. The same study will be replicated in several of the CORD Colleges for purposes of validating the present study and for extending the benefits of the project to more faculty members.

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FIRST PHASE QUESTIONNAIRE

FACULTY - ADMINISTRATION - STAFF

Generation Gap?____

Faculty-Administration Gap?____

Technological Gap?____

1. Would you like to obtain a FREE simple, foolproof Handbook on "Using the Video Tape Recorder in your College Classes?" Yes ☐ No ☐

2. Could you make use of a video tape recorder in any of your classes? Yes ☐ No ☐

3. If "yes," above, then you can receive, at no cost to you, two and only two, training sessions held at your convenience:

   a. VTR - RECORD
   b. VTR RECORD AND PLAYBACK

At the conclusion of the TWO sessions, you will receive the Handbook and Sign-up cards for the VTR Ampex 5000, VTR Panasonic Tape-a-Vision, and VTR Roberts 1050.

We will even try to provide Student Assistance at your first classroom tryout. Are you interested? Yes ☐ No ☐

Signature_____

Please return this form to one of our Mailboxes - - - - - - William H. Henning
or
Sister Gilmary Best

PRETEST - POSTTEST

Mark the following statements True or False

		True	False
A.	Video tape recorder is a		
1.	Storage and retrieval system	_____	_____
2.	Time machine	_____	_____
3.	Quality control unit	_____	_____
4.	Evaluation instrument	_____	_____
5.	Autoinstructional unit	_____	_____
6.	Teaching machine	_____	_____
7.	Programmed instruction vehicle	_____	_____
8.	Substitute for teacher	_____	_____
9.	Undergraduate research tool	_____	_____
10.	Instant replay	_____	_____
11.	Experience builder	_____	_____
B.	Video tape recording		
1.	May make the teacher obsolete	_____	_____
2.	Can be made to zoom in on very small details	_____	_____
3.	Can reproduce slides, movies and other film media.	_____	_____
4.	All video tape is fairly expensive	_____	_____
5.	Unlike audio equipment, the video tape recorder does not accrete iron oxide.	_____	_____
6.	Some VTRs need to be demagnetized.	_____	_____
7.	Dubbing is possible between VTRs.	_____	_____
8.	Helical scan is straight track recording	_____	_____
9.	Receivers and monitors are generally not interchangeable	_____	_____
10.	"Noise" and "snow" are synonomous terms in video taping language	_____	_____
11.	Fanning must be done rapidly to avoid ghosting.	_____	_____
12.	Standard Resolution is 525 lines.	_____	_____

Matching Test: Place proper term number before definition.

Definitions:

_____ A. The type of recording made on videotape by portable video tape recorders.

_____ B. Electrical interference in audio and video transmission producing a "salt-and-pepper" effect on the television picture.

_____ C. A television tube used in most portable television cameras smaller than the studio image orthicon.

_____ D. Inserting new portions of video or audio recording on a videotape in the place of original portions.

_____ E. A design made for correct focusing and tuning of the television image.

_____ F. An unwanted secondary image of the transmitted picture appearing on the screen.

_____ G. To follow action to the right and left with the camera.

_____ H. A special camera lens whose focal length is quickly adjustable from close up to distant scenes.

_____ I. The ability of a television system to reproduce the fine, sharp detail of a picture in dark and light lines that run across the width of a television screen.

_____ J. Any receiver used by a cameraman or teacher to observe the picture being received by the viewer.

Terms:

1. Dubbing
2. Ghost
3. Helical Scan
4. Monitor
5. "Noise"
6. Pan
7. Resolution
8. Vidicon
9. Zoom
10. Test Pattern