USING VIDEO REPORTING AS A COMMUNICATIONS MODALITY FOR FEDERAL EVALUATION REPORTS

An abstract of a Dissertaiton by
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The problem. The problem studied was how the recipient of a training grant such as the Drake Rehabilitation Placement Specialist Program can best report its goals, activities, and achievements to a sponsoring federal agency. Traditionally, final reports have been made in writing. The study focused on whether a video reporting system could effectively convey both cognitive and affective information.

Procedure. A video reporting system was designed to serve the purposes of government reports. A video report about the Drake Placement Program using this design was produced. A second version combining the video report with a written summary was developed. The effectiveness of these experimental models was compared with that of the written report prepared by the program administrators.

The participants in the study were thirty rehabilitation specialists from five rehabilitation state agencies involved in the assessment and funding of government grants. From this sample, three groups of ten were randomly selected. Group I viewed the video tape, Group II read the written report, and Group III viewed the video tape and read a summary report. A test was designed to determine the level of a viewer's cognitive understanding of the program. A second instrument was designed to identify viewer attitudes toward the program. Subjects were pre-tested, presented one reporting model and given post-tests on cognitive understandings and attitudinal concepts.

Findings. Two analyses of variance were conducted. The first compared the mean changes of the three groups on the cognitive test. The null hypothesis, that there are no differences in comprehension of the project when presented in written form only, in video form only, or in a combination of video presentation and written summary, was accepted.

The second hypothesis, that there are no differences in a viewer's attitude toward a project when the report is presented in written form only, in video form only, or in a combination of video report and written summary, was rejected at the .05 level. A further comparison of scores, using the t-test, between the attitudinal test for the written and the video/summary revealed no significant difference. A comparison of the attitudinal test for the written and video only was significant at the .05 level in favor of the video presentation using the t-test.
The grant evaluators participating in the study were asked to make a professional judgment regarding the continuance or discontinuance of the program presented. In 40% of the cases those reading the written report recommended that the program be discontinued. Those reading the summary and seeing the video report responded negatively in 10% of the cases. None of those seeing only the video report voted to discontinue the program.

Conclusions. The cognitive material of a report can be communicated equally well in video format, in written format, or in a combination of the two. However, the study's findings suggest that a video report will be more effective than a written report in changing attitudes or opinions.

The feasibility of a video reporting format hinges on the availability of production funds, access to video equipment and technical assistance. Advances in television technology together with a growing consumer market have established a trend toward lower cost and simplified operation. Government applications are increasing as a result.

The findings indicate that a video report can influence an evaluator's opinion of a program. It was the consensus among the rehabilitation grant reviewers participating in the study that the video presentation provided a more affective understanding of a program than the traditional reporting system. However, they identified the need to include more hard data and critical assessments.
USING VIDEO REPORTING AS A COMMUNICATIONS MODALITY FOR
FEDERAL EVALUATION REPORTS

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Maurine E. Horsman
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FEDERAL EVALUATION REPORTS

by

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Approved by Committee:

[Signatures]

Dean of the School of Graduate Studies
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Chapter 1

INTRODUCTION

This chapter provides the reader with 1) an introduction to the problem, 2) background information, 3) hypotheses, 4) assumptions and definitions, and 5) an overall view of the investigation.

Introduction to the Problem

The problem to be studied is how an educational program such as the Rehabilitation Placement Program can best report its goals, activities and achievements to the sponsoring federal agency. Good communication is essential for accurate evaluation and duplication of projects. A recent article by Bates stated:

A federal report is more important than ever before in the restrictive legislation of Capitol Hill. A decision whether to refund a project should be based on as much information as possible. The public also needs to know the full impact of a project, not a public relations report, but bringing a variety of perspectives to bear on the basic mission. To tell the story of what the agency actually did.1

Traditionally, final reports have been presented in the written format, which lends itself well to the presentation of such facts and figures as number of recipients, funds dispersed, and activities completed. However, the overall purpose, design and effectiveness of a program are influenced by the writer's singular perception of the

program and his/her ability to translate that perception undistorted into written form.

Direct sponsor observation of programs is difficult because of increasing numbers of grantees, geographic dispersion, time, and cost limitations. These factors have reduced on-site evaluation and increased paper flow.\(^1\) As a result, new reporting techniques are needed if government grantees are to continue to be held sufficiently accountable. Such new techniques must overcome the limitations on old methods; they should reduce rather than add to paper flow, provide information in technologically retrievable form, and convey "first-hand" information to those who cannot in fact visit the program being evaluated.

It is the purpose of this study to determine whether videotaped reports could provide an effective solution to agency reporting needs, both programmatically and technologically. The need for such a study has been suggested by the fact that while communications technology has advanced enormously and offers an array of options for effective reporting, practical applications have been few thus far. The Center for Research in the Utilization of Knowledge has observed:

There seems little doubt that the great technical achievements of our time in information processing and transmission will have a great effect on dissemination and utilization processes generally in the years to come, but there is a tremendous gap between promise and delivery. The production and marketing of hardware of the new media has far outstepped the more important but less glamorous and less profitable software. Accompaniment. As a result, we are living in a pseudo-technological environment surrounded by equipment which

\(^1\)Statement by Barbara Sweeney, Office of Human Services, personal interview, Washington, D.C., September 5, 1979.
is performing trivial tasks and standing idle most of the time, while knowledge users continue to rely heavily on old word-of-mouth and written medium for most of their message input.¹

Background Information

Extensive government grants to education are a fairly recent phenomenon, dating back to the 1950s. Higher education was virtually without federal support until the end of World War II when the G I Bill of Rights Act of 1944 made college educations possible for thousands of returning servicemen. The trend toward government assistance continued with the National Defense Education Act of 1957 which subsidized space-related educational programs.²

Before 1965 federal aid to elementary and secondary education was distributed primarily through Impact Programs to school districts burdened by federal military installations. The Elementary and Secondary Education Act (ESEA) of 1965 marked the beginning of federal involvement.³ The ESEA program received $1.136 billion in 1965; its appropriation rose to $9.464 billion in 1972.⁴


⁴Peckman, p. 129.
It is very difficult to determine the exact overall figure being spent on education since every major legislative branch provides some type of educational program. For example, a fire prevention program received $1.5 million from the Department of Commerce for public education on fire prevention. Over 400 separate legislative provisions govern the flow of dollars to students and institutions. While the Department of Health, Education and Welfare (HEW) provides more money than any other agency (a budget of $11.9 billion by 1979)\(^1\), the total federal outlay for education grants in 1978 was $18.1 billion. The sheer magnitude of the sums establishes the need for monitoring systems which will insure that funds are distributed according to the guidelines legislated.

In addition, there appears to be a need for more programmatic accountability in federal grant programs. A reporting system should therefore address not only the disbursement of funds but, if the program was carried out, how effectively the objectives of the program were met.\(^2\) Congress is far less successful in assuring grantee accountability than in the appropriation of funds.\(^3\)

A primary purpose of reporting is to provide a basis for

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\(^3\)Public Statement by Senator Richard Clark, television appearance "Meet the Press" - Issue: Hud Grants in Harlem, July 1978.
decision-making and change. Program personnel need the opportunity and incentive to identify areas that are sound and those that need to be changed. This formative aspect of evaluation is seldom addressed by federal agencies, which are usually concerned only with the continuance or discontinuance of a program. The summative reporting systems reviewed encourage the grantee to take a defensive posture, reporting positive aspects and justifying problem areas to insure refunding. This approach makes it difficult for either the grantee or the agency to know whether the intent of the program is truly being met.¹

Another purpose of reporting is to provide a means for the dissemination of information. Research and model grants are funded with the purpose of finding solutions to problems of a universal nature that will be of assistance to others. Dissemination of information about these solutions is presently left to the discretion of each agency. At the present time there is no information system or method of access to and retrieval of grant report information. This is in part due to the fact that no standardized format is required for reporting on federal projects. Despite technical developments in the fields of computers, television, and information processing components, comparatively little research has been done to discover how technology can improve dissemination of federal project results.

The large number of grants being legislated and the increasing amounts of money and personnel being absorbed by these programs suggest

that research in the area of reporting procedures would be valuable. It is therefore the purpose of this study to evaluate one of the many ways of providing a grant reporting system. Since the primary purpose of a grant report is to assess the extent to which a project has met its objectives, this study will compare the ability of three possible forms of communication to transfer such information: a written format; a video format; and a combination of video and written summary.

Hypotheses

1. There are no differences in a reviewer's comprehension of a project when the evaluation is presented in written form only, in video format only, or in a combination of video presentation and written summary.

2. There are no differences in a reviewer's attitude toward a project when the evaluation is presented in a written form only, in video format only, or in a combination of video presentation and written summary.

Delimitations

This study compared a single video presentation especially designed and produced to meet the reporting purposes of the Drake Rehabilitation Placement Program with a written report prepared by the Administrator of the program.

The video presentation was produced using only the video technology available at Drake University and North Adams State College.
The reporting design was based on research available in educational communications, written formats currently used for reporting grants, and research in attitudinal change. Production time was limited to one week. Investigation was limited to forty rehabilitation agency workers actively involved in evaluating and funding rehabilitation programs.

Assumptions

This study assumes that the attitudes of a reviewer toward a project will play a decisive role in determining the continuance or discontinuance of projects.

Design of Study

This study was conducted in cooperation with the Drake Rehabilitation Job Placement Specialist Program, which provided a written report for comparison. The study included design and production of an experimental video report using content similar to material covered in the written evaluation report. A summary written statement accompanied the video report.

The video report was twenty minutes in length, the same amount of time required to read the written report. The summary did not exceed one page and took no more than one minute to read.

The video report was filmed on the Drake campus, at field sites for the Rehabilitation Placement Program, and at the work places of program graduates. Interviews with the Director, faculty, students, supervisors and graduates provided the information needed. The video report was produced on 3/4 inch color portable equipment. Material
was edited and revised through a formative evaluation process. The edited version was transferred to a cassette and copies produced.

A test was designed to determine the level of a viewer's cognitive understanding of the placement program. A second instrument was designed to identify viewer attitudes toward that program. These instruments were validated through 1) content analysis of the written report, 2) judgment of a specialist involved in rehabilitation, and 3) item analysis.

A public agency population actively involved in evaluating and funding rehabilitation programs was identified. From this population, three groups of ten were randomly selected.

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Data and Instrumentation

Two data collection instruments were used in this study. The test to measure cognitive understanding of the placement program consisted of five items and took less than fifteen minutes to complete. The attitude instrument was a Likert-type scale, designed to determine the level of acceptance of rejection of the project concepts presented. These instruments were pre-tested with a sample of three people representative of the test population. Questions were written on the basis
of content validity and their ability to discriminate knowledge level. The attitudinal questions were designed to reflect the attitudes most important to the rehabilitation placement program. The Drake staff assisted in determining these priorities. Revision and retesting was conducted to eliminate problems in question and scoring. (See Appendix A.)

Definition of Terms

Attitudes - Alport (1935) "An attitude is a mental and neutral state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related."

Evaluation - Dressel (1976) Evaluation is both a judgment on the worth or impact of a program, procedure or individual, and the process whereby that judgment is made.

Formula Grants - Formula grants are based on statutory formula for allocation based on fixed criteria and universal distribution.

Internal Report - A report prepared by someone with the project or someone assigned by the Project Director to produce a report at his request.

External Report - A report prepared by the funding agency or by a consultant hired by the agency.

Opinion - Verbal expression of attitudes.

Project Grants - Project grants are allocated by administrative discretion and merit application, with limited duration and selective distribution.

Rehabilitation Placement Program - The Drake University
Rehabilitation Program is innovative, field-based training program to develop Job Placement Specialist at the Master's degree level.

**Video Report** - An edited videotape presentation with sound and in color. It may be shown on a television monitor or transferred to film for projection on a large screen.

**Videotaping** - Uses television cameras to record information rather than transmitting it instantaneously. The technique is one of magnetic recording. It differs from motion pictures in that the information is recorded and electronically edited.
Chapter 2

RELATED LITERATURE

This chapter discusses three areas related to the study problem 1) current federal grant reporting system, 2) literature concerning attitude change, and 3) the state of the art of video technology.

Part I, the Federal Reporting System, examines that system's purposes and program elements. Part II, the Review of Research on Attitudes, sets forth the definition, function and theories on changing attitudes. Part III, the State of the Art of Video Technology, relates current applications to the feasibility of developing a video reporting communications system.

Part I - Federal Grant Reporting

Federal grant project reports are prepared for a variety of purposes. The reporting method used and program areas reported on are determined by the goals of the funding agency. Following is an overview of 1) the purpose of reporting, 2) program elements reported, and 3) reporting formats.

Purpose

A report may have a single purpose, such as determining whether a program has complied with the regulations, or it may have multiple purposes. Five overall report objectives are ultimately used to determine the continuance or discontinuance of a program:

1. to guarantee the program's compliance with law and regulation, both federal and state;
2. to provide project administration and staff with appropriate feedback on project performance to enable them to improve proper performance;

3. to assess the extent to which the project actually achieves its objectives as stated in the grant application;

4. to identify exemplary projects or exemplary components of projects for dissemination;

5. to provide general information to the public.¹

Which of these purposes are selected is determined by those initiating the reporting procedure. The reports are used by: federal agencies; the grantee or institutions carrying on the project in need of assessment; and the public, taxpayers who want accountability for public monies being expended.

**Federal Reports**

Federal reports vary; there are over 1000 programs administered by over sixty different federal agencies. Each program has different guidelines. How the program is administered determines to a large extent how it is ultimately reported.

The primary use of a report is to assure grantee compliance with guidelines and administrative procedures.² For example, Title VI of the Higher Education Act is a categorical matching grant, legislated to provide institutions of higher learning with audiovisual equipment to

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¹James Wilson and Asa Knowles, "Handbook of Evaluating Co-operative Education Programs" (Boston: Northeastern University, 1979). (Mimeographed).

²Derthick, p. 12.
increase their resources. The final report required is a financial statement concerned with the disbursement of funds by the institution within a specific time frame. The report is used to establish whether funds were matched by the institution and whether all equipment purchased meets the guidelines.¹

Title I of the Elementary and Secondary Education Act provides for a formula grant based on the number of educationally disadvantaged served by the program. Its purpose is to improve the basic skills of that population. The focus of the final report, in this case, is a comparison of test score results before and after the program, the numbers reached and the financial statement.²

Some programs do not lend themselves to statistical evaluation, since the goals they hope to achieve are subjective. For example, Title I, Higher Education Act, provides for continuing education and community service programs through institutions of higher learning. Grant applications require a plan for measuring project performance, a method of dissemination and final evaluation. The purpose of a report is to determine the achievement of objectives through measurable means when possible but also subjectively to identify exemplary projects for future dissemination and modeling.³

¹"Application for Grant for Equipment and Materials to Improve Undergraduate Education - State Plan" (Boston: Commonwealth of Massachusetts, 1976), p. 1. (Mimeographed)

²Statement by Don Geer, in personal interview.

³"Application for Title I - State Plan for Fiscal '76" (Boston: Commonwealth of Massachusetts, 1976), p. 1. (Mimeographed)
It is also the purpose of a report to provide information to determine when programs should be continued or discontinued. Some programs provide only seed money for an innovative program to be tried and tested. The point at which funds are withdrawn is critical to the goals of the funding agency and the grantee institution. It is essential that the agency be able to determine accurately when programs have had adequate opportunity to succeed and become self-sufficient, when they need additional support, or when they should be terminated as failures.¹

Institutional Reports

The process of assessment and reporting is as useful to grantee institutions as to the agency. Reporting on a project becomes a way of apprising the institution of what is happening or has happened as a result of the expenditure of effort and time. A report can be used to determine the feelings of those involved and to assess what changes should be made. The process can strengthen attitudes and gain internal or external support for the program. Depending on their format, project reports can also be used to support recruiting efforts for academic programs.²

¹Wilson and Knowles.

Public Reports

The public has become increasingly interested in the accountabil-
ity and reporting of government programs as the disbursement of public
monies has increased. There is a real need for public involvement.

Glen Heather, professor of educational research at the
University of Pittsburgh, states that:

It is generally assumed that the aims of education are
identified, studied and justified by educational philosophers,
while state departments of education, local school boards
and school system administrators decide which educational
aims to follow...but in a democracy decisions about the pur-
poses and aims should be made by the citizens they serve.¹

The public serves as a balance to assure that the intent of a
program is truly on target. The purpose and aims of programs need to
be understood by the public. Presidential Deputy Press Secretary, Wufel
has observed that "public awareness needs to be a part of major govern-
ment programs".² A formal method of dissemination of information to
the public is becoming a more frequent requirement as sensitivity to
the public's need to know increases.

In summary, the purpose of a report is to provide a basis for
judging the project's compliance with regulations, its degree of con-
sistency with proposal objectives, the quality of the project's ser-
vices, its management, its impact and its replicability. The depth of

¹Glen Heathers, "Educational Philosophy and Education Technology,"
To Improve Learning, ed. S. G. Tickton (New York: Bowker, 1971),
pp. 116-35.

²D. Wurfel, "Public Relations Report," Public Relations Journal,
XXXIII (June 1977), 2.
the report in particular areas depends upon the goals of the agency or group requesting the report.

Program Elements Reported

While the scope and depth of a report are determined by those for whom it is prepared, there are five elements common to most reporting formats 1) program objectives, 2) program design, 3) operation, 4) support and impact, and 5) financial disbursements.¹

1) **Program objectives** fall into two categories, outcome objectives and operational objectives. Outcome objectives express long-term program goals and anticipated student outcomes. Administrative outcomes relate to the operation of the program and tend to be short-term. For example, a program may have as its administrative objective a goal of increasing its enrollment by 50 students during the grant year.

2) **Program design** usually includes a description of the mode of operation, e.g., organization of the program in terms of classroom versus field experience and the kind of calendar year the institution has adopted. Measures of change and how these are integrated and operating are part of the design. The coordination of the program internally and the dissemination of information externally is often reported.

3) **Operation of the project** covers the principle concerns of curriculum goals, personnel numbers and ratios and adequacy of facilities. The procedures and policies of the program are described.

¹Joan Wofford, "Evaluation of Projects in Special Education" (Boston: Massachusetts Department of Education, Division of Special Education, 1978), p. 31. (Mimeographed)
4) **Interactions and Support** is concerned with the following components: the relationships of the project to the institution, faculty, students, and the community; vertical articulation of programs with curriculum or events; impact of the project on the institution, cooperating departments and units of administration, e.g., admissions; and spin-off effects on the community and its citizens.

5) **Program Costs and Income** includes reports on personnel costs, travel, printing, materials, tuition fees, etc. Important to the agency will be purchasing procedures, budget changes, and completion of transactions within the fiscal year of the grant.

**Internal and External Methods of Reporting**

Reports may be prepared internally by the project director or someone assigned the task within the program, or externally by a consultant designated by the grantee or a representative of the funding agency.

Both internal and external reports are based on data collected from the project, including written materials, such as brochures, statements of objectives, records of procedures, and testing data, and materials specifically compiled for the report. Perceptions of those involved in the project are gathered through an interviewing process. Interviews with the director, staff, faculty, and students and recipients provide views of the program from various vantage points.¹

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The distillation and synthesis of the material gathered is accomplished through comparisons of data, statistical descriptions and qualitative summaries based on the program's objectives.

Formats for Reporting

To facilitate comparisons between programs, reports often use check lists and multiple choice items that are universal in form. Some programs, such as those funded under Title IV-C - ESEA, have evolved a very detailed and complete reporting system that includes questionnaires, subjective observations such as student rapport and school atmosphere, and oral reports and interviews with the project director and program clients.¹

The most common mode of reporting is written communication. Oral reports are often presented to summarize the written report. Other modalities, including film, video-tape, and audio-tape recordings, are possible but not commonly used.

An exception to this is the National Diffusion Network whose purpose is to report on educational programs funded under ESEA, Title III and Title IV-C. The Network's reports are video cassette presentations in which the project director explains the program and demonstrates activities. The major purpose of the report is to disseminate information on the program for future replication.

The need for clear and concise reporting is cited repeatedly as is the need for effective dissemination. The format often predetermines

¹Mathews, pp. 7-25.
how widely the program can be disseminated. An evaluation center has stated:

Clear concise reporting in a form suitable for general publication is perhaps the most effective single ingredient in dissemination. Too often a single copy of the project's final report is filed on the library shelf.¹

Many final reports use the narrative format of the project proposal. Other alternatives are self-generated evaluations or reporting devices agreed upon among institutions. The length of the report, the type of questions, areas described and modality used are at the discretion of the grantee.

A survey of program purposes and federal reporting elements has shown that while purposes vary the reporting structures are similar. A common framework for reporting federal grants could be developed that would allow for differences in purposes while providing a common format for evaluation and dissemination. A survey of reporting formats shows few attempts to use a medium other than print. The need for clear, concise and understandable reporting was cited numerous times. There also appears to be a need for a means of communicating more effectively with federal agencies, institutions and the public.

Part II - Changing Attitude

Changing attitudes and opinions through communications is one of the most widely used techniques of the marketing industry and the public relations field. It has been studied extensively by sociologists, psychologists and educators. In this inquiry into the research related to attitude change it is assumed that attitudes influence understanding and evaluation of a report. It is therefore important to understand attitudes, their formation and what causes them to change.

Alport defines an attitude as:

A mental and neutral state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.\(^1\)

Colloquially "attitude" generally refers to the disposition of the individual to view things in specific ways and to act accordingly.

Stouffer and his colleagues suggest that there is general agreement that opinion should refer only to verbal behavior whereas attitude may be either verbal or non-verbal.\(^2\)

Triandis has suggested that the functions of attitudes are to a) organize and simplify the complex world around us, b) protect self-esteem by avoiding unpleasant truths, c) adjust our thinking to maximize the rewards from the environment, and 3) express fundamental values. According to Triandis, attitudes provide predictability; they eliminate

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the individual's need to decide again and again what a reaction should be to a certain object. Since the function of attitudes is to act as a defense against unwanted information, it is not surprising that once an attitude has been established there is a tendency to resist its change.

Attitude change consists more often of modification than conversion. Analysts of mass communications, such as Klapper, have stated that twenty years of research have revealed some basic tendencies. Perhaps the one most widely confirmed is that mass communication ordinarily serves as an agent to reinforce attitudes, opinions and behavioral tendencies the audience already possesses. Klapper argues that mass communication creates attitudes where none exist but rarely changes the direction of existing attitudes; it modifies existing attitudes, but rarely nullifies them. Thus, a neutral position can be modified to become positive or a positive to extremely positive. It is unlikely that an extreme negative position can be changed to an extreme positive position.²

Festinger theorizes that the tendency to maintain the status quo is an attempt to retain a sense of peace and tranquility. When people are faced with information that conflicts with existing beliefs or are forced to act in a way contrary to their attitudes, they either change their beliefs or seek out additional information to reinforce

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¹ Triandis, p. 5.

present ideas. They may state that they want additional information but in fact they are seeking opinions which will reinforce existing ideas, to prove them accurate and justified. Generally people admit into their consciousness only those things that interest them and that they think will benefit them. They tend to ignore or forget material they disagree with or to distort it to fit their own views.\(^1\)

The research generally agrees that the individual sees what he wants to see, hears what he wants to hear, and receives only those messages in support of what he already believes.

**Attitude Change Theories**

Katz suggests that change will only occur when the old attitude or its anticipated expression no longer satisfies its related need state.\(^2\)

Klapper feels that conversion is likely to occur only among those who are willing to risk changes in their opinions and possibly in their social allegiances. Primary groups (families, friends, informal work teams, etc.) actively influence and support attitudes and opinions. Those individuals most strongly motivated to retain their membership in a group will be most resistant to communications contrary to the standards or norms of that group.

Hoveland, Janis and Kelley maintain that one of the main ways


in which persuasive communication gives rise to attitude change is through the production of related opinion change. Opinions, like other habits, tend to persist unless the individual undergoes some new learning experience. Acceptance of a new opinion is contingent upon incentives offered in the communication. These may take the form of arguments or reasons supporting the opinion or rewards or punishments that are likely to follow from acceptance or rejection of the new opinion.¹

While theories vary as to how and why attitudes change, there seems to be a consensus on what influences a person to accept a new opinion. Influencing factors are: the need or interest to change; the acceptance of the source (its trustworthiness and prestige); verbalization of the new attitude; and experiencing a new event.

The first pre-condition to change is for the individual to want or need to change an opinion. The individual who has no interest in the subject will certainly not attend to the message being presented. This point is often ignored when media modes are compared. Laboratory studies have built-in control over the attention given the information, but when the experiment is placed in the field this advantage is lost and the results can be very different. An example of this occurred in a study comparing the effectiveness of using 16mm film, television and a printed brochure and a lecture to carry the message of a school board reorganization. Film proved least effective and lecture most effective

in transmitting information. Further investigation showed that the variable of attention was the prime factor in determining the results. The brochures had been largely ignored and unread, the films unattended and only the lecture offered personal influences strong enough to attract and hold an audience's attention to a subject of little inherent interest.

Acceptance of the source is the second major influence in changing an attitude. Sources of attitude change are the people we know both directly and indirectly. Direct sources are primary groups such as families, friends and work teams. Katz and Lazarsfeld maintain that these primary groups actively influence most opinions and actions.\(^1\) Indirect sources include news editors, radio announcers, television personalities and actors. A key element in accepting their opinions is their prestige as perceived by the audience.

Prestige of the source or endorsement by a peer has been shown to have a strong influence in the acceptance of a message. The Yale Communications Research Program has theorized that a "recommended opinion" is first compared to one's own. Acceptance of the new opinion depends on whether there is greater incentive for making the new response than the old one.\(^2\) An individual like John Wayne represents for some a symbolic figure with whom they would like to identify.


Adopting his beliefs is perceived to strengthen the likeness and may have more value to the individual than retaining previous convictions.

The trustworthiness and intention of the source also have a major impact on the acceptance of the message. People distrust a person with an obvious "ax to grind" and will resist messages that smack of selfish propaganda. Studies have shown that the indirect approach or accidental discovery are far more persuasive than the direct approach.\(^1\)

The trustworthiness of the source is established in part by cues. Physical attractiveness, clothes, accent, rate of speech, loudness of voice, indicators of status, race, religion, age, and sex are cues which determine the acceptance or rejection of the source. The more similar the source to the audience the more likely that the source will be trusted and accepted.\(^2\)

In a number of studies overt verbalization has been shown to affect attitudes. Jellison and Mills have found that once people publicly commit themselves to a position they will think of additional reasons to justify that position and to prove they are correct. This process causes them to become more firmly convinced of their own opinion and to move from a moderate to an extreme position.\(^3\)


\(^2\) Triandis, p. 170.

Janis and Kelley found they could reverse opinions by using the same technique. They required participants to "role play" and present arguments opposed to their own beliefs. They found that participants who were satisfied with their speaking performances were likely to become impressed with their own arguments and accept the new position, thus modifying their own opinion.¹

Attitudes can also change through direct experience with the attitude object. A particularly direct and powerful source of change is a traumatic experience associated with the attitude object. For example, a non-black person robbed by a black will generalize this experience, and will have intense feelings towards blacks. This is a comparatively rare but intense way of forming an attitude.²

These factors influencing changes in attitude (interest, acceptance of the source, verbalization, experiencing a new event) should be considered in designing a media presentation. Interest can be assured if the content is directed toward a specific audience which needs the information presented. Acceptance of the source can be encouraged if the cues for trustworthiness are in keeping with audience expectation. Overt verbalization is more difficult to incorporate in a media presentation but discussion and statements regarding opposing positions would allow more opportunities for attitude change. Finally,


viewers might experience a new event if the presentation gave them the illusion of actually experiencing it. A number of comparative media studies have been conducted on the persuasiveness of the media. Klapper for example, found that personal address is superior to persuasive power to mechanical aural appeal, which in turn is superior to print. Because of its realism, film can reconstruct an experience and convey emotions better than other media.¹

The ability of film to affect attitudes was first studied in 1938 when audience reaction to WPA films was analyzed before and after film viewings to determine their impact on attitudes towards government work projects. Conclusions from these studies are consistent with current findings that film can reinforce and extend an existing attitude.

During World War II an unprecedented use of film by the United States Army provided an opportunity for experimental studies on its effectiveness in changing attitudes. One study during this period involved presenting the film The Battle of Britain to determine changes in knowledge, opinion and behavior. The film was very effective in teaching factual information. It is interesting to note that the number of opinion changes was larger nine weeks after the showing than after one week. Analysis indicated that change occurred more often among those originally predisposed to a particular opinion.²


Schramm summarizes the research findings about attitude change through mass communication as follows:

1. Attitudes can be changed by mass communication;

2. For attitude change to occur, a suggestion for change must first be received and accepted;

3. The suggestion is more likely to be accepted if it meets existing needs and drives;

4. The suggestion is more likely to be accepted if it is consistent with valued group norms and loyalties;

5. The suggestion is more likely to be accepted if the source is perceived to be trustworthy or expert;

6. The suggestion is more likely to be accepted if the message follows certain rules of "rhetoric":

   a. There is often an advantage in stating the desired conclusion specifically and positively;

   b. Sometimes it is better to state both sides of an issue; other times only one side;

   c. Repeat with variation;

   d. Make use where possible of audience participation;

   e. Use simplifying slogans and labels.¹

Since direct experience is cited as one of the most powerful means of changing attitudes, it seems that film could be a most effective change agent. Filmed reports of actual happenings could simulate a life situation and to a small degree recreate an experience that would have the emotional and visual impact of a direct experience.

A number of variables are involved in using video reporting to induce reviewers to change their opinion of a project, its concepts or

personnel. First, how trustworthy is the source perceived to be; how credible and neutral is the presentation? The viewers' desire for objectivity could reduce the acceptance of a report prepared with the obvious purpose to influence. Second, how effective would the production be in transmitting the immediacy and realism of a direct experience? Third, would the reviewer have a reason to accept the suggestions? The use of an expert or symbolic figure in such reports is not practical. Projects that are innovative may not be in harmony with group norms and may require the reviewer to differ with the work team environment. Therefore, the only reason for accepting a new opinion may be to meet the viewer's need to see herself/himself as an evaluator open to information and unafraid of taking a new stance.

To handle these variables effectively, productions should incorporate attitudinal change design techniques. For example, a format using a neutral reporter covering the event in a straightforward manner would contribute to credibility. Realism could be enhanced by on-location shooting to provide ambient sounds and visual cues of the surroundings, and to give the viewer a sense of living the moment. A subjective camera angle would allow viewers to place themselves within the scene. To provide an incentive to accept suggestions, it would be important to present the report as a reliable source of information that will assist the viewer in arriving at accurate conclusions. The presentation would need to emphasize the report's ability to present unedited statements from grant administrators, and to give an in-depth view of the quality of the services provided.
Part III - The State of the Art of Video Technology

When David Sarnoff, the founder and former chairman of RCA, told an industry group in 1938, "Television in the home is now technically feasible," he was all but laughed out of the room. Many predicted that it would be at least a hundred years before home television became a reality. Today over half the population has never known a world without television. Moreover, television is the most accepted way of receiving information. 1

Technological milestones over the past forty years were the ability to record the video image in 1952, followed by the digital videotape editing system in 1969, the time-base corrector in 1972, the video-cassette recorder in 1973, and the three-tube portable color camera in 1975. The Electronic News Gathering (ENG) revolution began when these technical innovations came together and made possible the first truly portable video production systems. 2

Applications of Non-Broadcast Television

Television users/producers can be separated into two broad categories, broadcast television and non-broadcast or private television. Non-broadcast television has been adopted by hundreds of business, government and non-profit organizations. Today there are more private


television facilities in the United States than there are commercial television stations. In 1974 over 300 corporations prepared more than 13,000 individual productions totaling over 3,500 hours, more programming than all three commercial television networks combined carried in 1977.¹

Private television production was instituted to meet the rising needs for training programs. Today specific job training is still ranked as the primary non-broadcast use of television. High technology firms such as IBM, Sperry, Univac, AT&T, and Xerox were the first to adopt video training to meet their constant need for retraining.

These firms have since expanded their applications of television to include corporate communications.² One interesting practice has been to videotape corporate annual meetings and distribute them to employee audiences. An outgrowth of this has been to combine video materials to produce "Annual Reports" of the companies' activities. Several major oil companies regularly videotape messages from top management to employees.³

William C. Douce, president of Phillips Petroleum Company, has said:

We can be more productive with the use of our time by the use of this technique. We recently made a program in which we talked about some of the problems of the oil industry that we wanted to visit with our employees about. It took us an hour to make it and yet it has been shown in about

¹ Brush and Brush, p. XVI.
² Ibid., p. 39.
³ Ibid., p. 43.
sixty places throughout the world. This would have been impossible through any other manner.  

Dr. Otto Lervinger, professor and Chairman of the Public Relations Department at Boston University has observed:

Interestingly, the chief executive and other officers are learning how to make effective use of the instruments of the company's internal communications system. The use of television as a warm, face-to-face medium that contributes to team building is only one example. But it is doubly significant, because television reflects the openness and spontaneity of a modern managerial style. In contrast, exclusive reliance on print is associated with bureaucracy—stiffness, rigidity, and control.  

The typical user has a profile that could be described as: a highly diversified work force ranging from scientist to semi-skilled; a geographically dispersed organization; multi/market diversification; and employees who want to know more about their organization.  

This profile also describes a government agency. Federal agencies are geographically dispersed, employ a diversified work-force, and have a large audience of institutions, public and employees who are in need of communications.

Television communications may still be looked upon by some as a luxury, even exotic, but with the sudden growth of video cassettes as a consumer product and home appliance, the novelty of video has been quickly dispelled. As the use of video recorders becomes commonplace, the value of the medium becomes clearer. The consumer market has already drastically affected the hardware available and its price, and

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1 Brush and Brush, p. 15.
2 Ibid., p. 16.
3 Ibid., p. 29.
accelerated the growth of commercial applications.

Development of the new one half inch video recorder for the consumer market is an example of a technological advancement important to both the industrial and the educational market. The format is convenient and economical; designed ostensibly for the consumer, it has drastically cut the cost of tape and provided smaller playback units. Companies like Ford Motor Company, which has 5000–6000 video players in automobile showrooms, will be able to cut the cost and bulk of tapes and machines.¹

Consumer use of video cassettes opens up the possibility of using video programming in both home and office. Already large insurance companies and similar organizations with nationwide forces of professional employees are providing job training course materials for home use. Physicians and lawyers are now being offered continuing education courses on video cassettes designed for home use.

There are numerous applications of video in government as well. As in industry, one of the most common uses is in the field of training. For example, police agencies experiencing the pressures of understaffing have developed individualized training programs which use video tape as the primary teaching device. The staff produces its own instructional materials on specific training problems, to be used during slow periods on the job.² Another example of video communications at work


in government is the Florida Public Television coverage of legislative sessions, which the State Department of Education has funded for the past six years. Profiles of elected officials, stories relating to government, and coverage of the sessions are produced weekly. A survey showed their program was watched by 1.4 million Floridians at least once during the year. This large scale exposure has resulted in greater awareness of governmental issues and greater response from the voters.¹

Recent years have brought many crises of credibility in government. Part of the problem may be attributed to lack of communications. New approaches to meet the needs of an expanding and diversified audience are being developed. The technology is available and has begun to be implemented.

Production Equipment

This review will be limited to the consideration of electronic field production equipment appropriate for the production of video reports on government grants. The Electronic Field Production configuration is usually limited to a single camera, a video recorder and ancillary equipment such as monitors, audio equipment and lighting. The primary concerns are the video recorder and the video camera.

The major videotape formats available are the Quad 2-inch, the type C 1-inch, U-Matic 3/4-inch cassette, and the Beta/VHS ½-inch cassette. These designations refer to the physical width of the videotape

and determine the type of video recorder used. The 2-inch quad video-tape recorder offers the best quality available, but due to size, weight and cost, it is used primarily in studio broadcasts. The 3/4-inch cassette is the equipment most widely used in industrial non-broadcast applications. It is also used by broadcast stations for gathering news in the field. The field version of the recorder is battery-operated and weighs as little as 25 pounds.\(^1\) The new consumer ½-inch format is the lightest and smallest video recorder available. It lacks the editing capabilities of the larger formats and the quality for master recording; however, this will undoubtedly change. This format represents the lowest investment in equipment and tape stock and can be considered an alternative for producing low cost single generation programs.\(^2\)

The camera is the second important piece of production equipment. It determines the quality of the picture in terms of color and resolution. It also influences the flexibility of the production because it determines lighting requirements, power needs and shooting angles.

The major breakthroughs in camera technology have been the lower lighting needed for today's color camera and the improvement in picture quality. Picture clarity is determined in part by the number of pick-up tubes used. Cameras are manufactured using three, two, or one tubes. The three-tube camera offers the best picture quality as

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\(^2\)Ibid., p. 60.
well as many special features, such as low light requirements (existing light may be used), and color bars for color set-up. Two-tube cameras offer the next best picture quality and operate on the principle of one-tube for luminance and one for chroma.

The one-tube camera, although of lowest quality, probably represents the greatest breakthrough in the cost of video equipment. Again, the consumer market has brought about a price decrease and encouraged the development of this smaller and more portable camera. These cameras differ from the industrial type in circuitry and ruggedness, but their quality is sufficient to offer a valid alternative to "commercial products". The major drawback is that the cost of repair can be as much as half the original cost.¹

Electronic newsgathering applications in broadcasting have brought pressure to bear on the manufacturers to provide "high quality" portable field cameras. Three-tube, light-weight, portable cameras with low light requirements are now available. The trend is toward lower power consumption for longer battery operation and toward modular features to allow conversion to studio use. The reduced size makes them comparable to film cameras in flexibility.

Portable cameras, light-weight video recorders and computer editing have made it possible to leave the studio and go where the action is. The principle advantage of this type of documentary production is that it provides immediacy and a sense of realism.

¹Neil Heller, "How to Care for Your Low-cost Portable Camera," Educational and Industrial Television, October 1979, pp. 57-58.
It would not be possible to use the single camera production technique without the post-production capability of frame by frame editing. To switch from one scene to another, a single camera would have to slowly move from one subject to another. However, through the editing process a scene can be "cut" without the panning motion.

Computer-assisted editing systems allow videotape to be edited electronically without physically cutting or splicing the tape. Exact edit points can be chosen, giving the producer the ability to switch scenes in the post-production process in much the same manner that camera shots are selected during a studio production. The process is similar to editing film except that the lab work is done immediately by the micro-computer.¹

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4-inch portable videorecorder, battery operated</td>
<td>$2,800.00</td>
</tr>
<tr>
<td>Three-tube color camera with built-in microphone and A/C adaptor</td>
<td>5,000.00</td>
</tr>
<tr>
<td>Color monitor, 9-inch</td>
<td>400.00</td>
</tr>
<tr>
<td>Accessories: auxiliary microphone, tripod, extensions, battery charger, lights, head phones</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Videotape 20-minute cassettes</td>
<td></td>
</tr>
<tr>
<td>@ $17/each</td>
<td>$9,700.00</td>
</tr>
</tbody>
</table>

The cost breakdown of the 1/2-inch configuration would be approximately:

¹Peter Cravell, "Choosing an Edit Controller," Educational and Industrial Television, September 1977, p. 25.
1/2-inch video cassette recorder $1,500.00
Single-tube color camera 2,000.00
Color monitor 400.00
Lighting package, audio mixer, battery charger, headphones, light-weight tripod 1,000.00

Videotape cost 120 minutes @ $20/each $4,900.00

Video equipment is often available from college media centers or public television stations. It can also be rented on a daily basis from photographic equipment supply houses. One approach would be to contract with a college media center for production including editing. An alternative would be to purchase the equipment for use throughout the grant and final report.

The multiple uses of video equipment and its simplified operation make this communications and training tool a reasonable purchase if it is not already available to the institution. As the use of videotape recording becomes more familiar at home, applications at work will become clearer and new uses will develop. Television is being reduced from a luxury to a communications tool like the telephone.

A review of literature and a survey of the technology demonstrate a coming together of the technology, the cost, and the need for a new method of communication. The state of the art has reached a turning point from which there is no retreat. It is important that both the limitations and the capabilities of the technology be understood. It can intimidate and impose new constraints, or it can allow more free and complete communications.
Chapter 3

DESCRIPTION OF PROCEDURE FOR THE PRODUCTION
OF A VIDEO REPORT

This chapter describes the four phases of producing the video report which is the focus of this study: 1) planning, 2) pre-production, 3) on-site production, and 4) post-production. During the planning phase objectives, content, audience, format, and relevant research are determined. Pre-production procedures include scripting, equipment selection, and scheduling. On-site production involves technical and program content. Post-production processes include editing, revision, testing and final editing of the program.

The Planning Phase of Producing a Video Report

Determining Objectives

The first step taken in planning the video presentation was to establish its objectives by analyzing the purpose of the communication, determining its content and identifying its audience.

Analysis of the Rehabilitation Placement Program Report revealed the following purposes:

1) to demonstrate the program’s accountability by documenting its operation;

2) to provide project administration and staff with information helpful in making changes;

3) to solicit information useful in determining the extent to
which the program met its objectives;

4) to provide an understanding of the program for future dissemination; and

5) to provide a basis for deciding whether or not to continue the program.

These purposes are similar to those previously cited as the purposes for federal grant reports.\(^1\)

Once isolated, the goals or purposes of the video report were examined to determine how they could be achieved. This examination led to the following production decisions:

1) to demonstrate accountability it would be better to document the program in progress on location than to film a studio narrative;

2) to provide information for future changes it would be necessary to interview program participants from a number of perspectives in a manner that would encourage introspection and trust;

3) to determine if objectives were met, program objectives would have to be clearly stated and compared with the data available; and

4) for the report to be useful as a communications vehicle about the program, it would be necessary to present the program in a manner understandable to the layman.

It was felt that if all of these production techniques were incorporated, the report would achieve the last purpose, to provide a communication helpful in arriving at a decision concerning the

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\(^1\)Wilson and Knowles, p. 6.
continuance or discontinuance of the program.

Determining Content

The content of the video report had to be the same as that of the final written report submitted to the funding agency. The written report incorporated data and statistics that three institutions with like programs in job development and placement had agreed were important in program assessment. The three institutions, Southern Illinois University at Carbondale, Michigan State University at Lansing and Drake University, developed an evaluation tool called "Common Evaluation Report for Graduate Programs in Job Development and Placement". Materials were collected to assist the institutions in comparing and evaluating how successfully they were meeting their objectives. The final written report was a combination of the content of this report and other materials significant in the administration of the Drake program.

Topics included in the written report were program objectives, program design, operation, and institutional and community support. The same material was to be presented in the video report; however, rather than one person reporting on the project it was felt that answers to the questions could be recorded directly from many sources, providing more than one perspective and responses free of interpretation. For example, administrative and agency representatives could answer questions about students, institutional commitment or agency cooperation directly on camera.
Analysis of Audience

The audience for this video report had the potential of being any or all of the following: federal agency reviewers; students; institutional administrators; community agency personnel; the grantee; interested outside institutions; prospective students; and the general public. Since research indicates that programs designed for a specific audience are more likely to be successful,\(^1\) a primary audience was selected. The audience most influential in the continuance or discontinuance of the program was determined to be its federal funding agency. While other audiences were not excluded, the program's content, level of sophistication and concerns were selected with federal agency reviews in mind.

The characteristics of this audience were assumed to include a high degree of interest in the subject, an understanding of various methods of training rehabilitation counselors, and some previous knowledge of the Drake Rehabilitation Placement Program. Their primary concern was assumed to be assessment of project performance based on the stated objectives.

Their predisposition toward the project was judged by the program's administration to range from slightly negative to slightly positive. This attitude was regarded to open to change, since research on attitude change demonstrates that a slightly positive attitude could become very positive, slightly negative feelings could become more firmly ingrained, and neutral positions could move in either direction.

\(^1\) Hoban and van Omer, p. 23.
Funding agency personnel were very reluctant to receive unsolicited communications, personal contact and phone calls. It was anticipated that the high degree of interest in assessment would increase the probability that the video report would be accepted and viewed. The audience's sensitivity to persuasive communications dictated the need for objectivity.

The formats considered for the video report were a historical approach, a narrative by students or administrators, a documentary report, or an assessment report. The purposes of the report were again analyzed in selecting the format most compatible with its goals. The historical view was rejected because, although the development of the program was interesting, key issues were not related to time intervals. A narrative most closely approximates a written report and might be readily accepted by the audience. However, this approach was eventually dismissed because it also incorporated the negative aspects of written reports, i.e., a single perception, interpretation of data and lack of neutrality. The documentary format has the advantage of explaining the program to those unfamiliar with training programs in placement and of providing an excellent tool for public relations. However, while this is one of the purposes of a report it was not the primary purpose for the audience selected. The assessment format that was selected allows multiple perceptions of an issue and a sense of objectivity in their presentation. This format also corresponded to the primary interest of the funding agency in evaluating the degree of program success in meeting its objectives.

The length of the program was projected to be not more than
fifteen minutes. It was felt that the audience would be more likely to commit themselves voluntarily to a short presentation. It was also anticipated that in keeping the program short non-essential material would be edited out and a fast-paced, interesting presentation would result.

The relative effectiveness of color and black-and-white presentations as teaching devices has been thoroughly studied. Both produce learning; no greater learning occurs with the use of color. However, color films are preferred and their content is remembered longer.\(^1\) Color productions require sophisticated equipment which has higher light requirements, is larger in bulk and weight, is more expensive, and requires more technical skill and production time. On the other hand, they offer realism and aesthetic qualities that are lacking in black-and-white presentations. Further, today's audience expect color and are surprised by its absence. It was concluded that for the purpose of this video report the negative aspects of a color production were outweighed by the realism and aesthetic qualities of a color production.

**Pre-production Preparation**

The first step in preparing the video report was to draft a script. The assessment format was used as an outline for reporting

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\(^1\) A. W. Vandemeer, "Relative Effectiveness of Color and Black and White in Instructional Films," *Instructional Film Research Reports*, ed. C. R. Carpenter (Port Washington, L.I.: Special Devices Center, 1956).
objectives, curriculum design, interactions and support of students, faculty and program achievements. Interview questions were designed to elicit responses evaluating these areas. Scenes of work experiences and facilities were selected to document the program and were integrated within the script. The result was an outline of sequences providing potential scenes, specific questions and possible answers. (See Appendix B)

Questions were written with the understanding that some would elicit more response than others and would have to be tailored to the situation during the interview process.

Once the information needs were identified it was necessary to select those who could provide the responses. The project director, coordinator and field experience coordinator were best able to respond to questions concerning project objectives and curriculum design. Faculty in the related areas of business and medicine could provide visual explanations and documentation of program content.

Students, graduates and employers were chosen to demonstrate the effectiveness of the program. Since it was the intent of the program to provide specialists for state/federal agencies, private agencies, and business and industry, representative students, graduates and employers in each of these areas were identified. The selection and size of the group were determined later by such arbitrary factors as geographic location and available production time.

Questions regarding community impact and interaction of the institution with government agencies, businesses and private agencies could best be answered by their representatives. Therefore, videotaped
interviews with affiliate supervisors, agency directors and company personnel directors were sought. The general response was a request for a list of the specific questions that would be asked and time to obtain clearances from respective management groups. There were no refusals but time restrictions eliminated some participants. One company refused filming on the site due to congestion, while another stipulated that no questions be asked other than those cleared. On the other hand, one supervisor offered his office for filming and, two rearranged their schedules to accommodate the videotaping.

A one-week production schedule was projected. It was felt that this would be a reasonable length of time in terms of information-gathering, personnel and equipment costs. A tentative production schedule was constructed to coordinate all potential interviews with work-sites and geographic locations. Consideration was given to providing sufficient time between locations for travel, potential delays, parking, set-up and locations difficult to reach, such as factory sites. Interviews were scheduled for the work site rather than a central location to provide a sense of authenticity and to document the program. The number of time slots available in a week limited the number of graduates and students interviewed. Selection factors were the geographic location of students in field experiences, and the need for representatives from the three areas of business, government and private agencies. Sites where supervisors would be available for interviews were given preference. Letters were written to all individuals requesting their participation in the filmed report at specified times. There were no refusals and follow-up letters were sent confirming times
and providing the specific questions to be used.

At this point, all on-camera talent requirements of the script had been met with the exception of the interviewer. The question of who would do the interviewing was an important one. Ideally the interviewer would be one of high prestige, a peer or authority in the view of the prospective audience. However, it was difficult to locate a person with those qualifications willing to spend a week in production without adequate compensation. It was decided to shift the emphasis to those being interviewed by utilizing such production techniques as a subjective camera angle over the shoulder of the interviewer, extreme close-ups of the subject, and the use of the interviewer's voice only over inserted visuals. The interviewer's role could then be accepted by the writer and provide continuity for post-production additions and narration. The drawback of this decision was the loss of separation and objectivity during the interview process.

Planning the technical production aspects of a remote location shooting was as essential to the success of the project as scripting the content. The first step was the selection of the equipment using the criteria of portability, quality control, and availability. Portability in terms of battery operation, size and weight was important for easy portage and achieving a film-style production. Exteriors and locations where power was not available required battery operated equipment, yet the quality of resolution and color had to be sufficient

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for transfer in the editing process and again for duplication.

The video camera selected was a portable color 1610 Sony, battery operated, with an F 1.6 zoom lens. This weighed approximately thirty-five pounds and could be used with a shoulder mount. It had comparatively low light requirements due to the fast lens. The video-recorder selected was a 3800 portable Sony weighing thirty pounds. These items were available through the North Adams State College Instructional Media Center. Back-up equipment was available through the Drake Educational Instructional Media Center in case of any possible mechanical breakdown during production.

The system designed was self-contained, sufficient for all locations and conditions. Lighting requirements for interior offices and factories were met by a portable lighting kit arranged for through the Drake School of Journalism. A battery-operated monitor was added to the system for checking the color recording in the field. A rolling tripod with dolly and head was necessary for long interviews. A/C adaptors for the camera and recorder allowed power to be used when available. A wavefoam monitor was an optional piece of equipment added to provide quality control over the video level necessary for post-production editing.

The system was put through a trial run to check the operation of each piece of equipment and to insure that all cables and adaptors were included. Extension cords, fuses, maintenance items, i.e., re-charging units and back-up items, were added. The system was then packaged for easy transport.

The total system was transportable in a car; however, the use
of a van would allow the camera to be left on the tripod and provide
the option of leaving equipment on a rolling cart interconnected to
save some time and effort. Arrangements were therefore made for the
use of a van during the week of production.

This system required a minimum of a two person crew. The
interviewer would assist the technical director in the initial set-up
of video equipment, lights and microphones. The technical person
would then assume the responsibility of recording, taping, and monitor-
ing technical quality. The interviewer would secure the talent,
determine the sequences to be taped, interview the talent and insure
that script content was covered. Since the writer was assuming the
role of the interviewer only technical assistance had to be arranged.
This was done by scheduling several assistants for production dates
through the Drake Educational Media Center, the School of Journalism
and a colleague of the writer.

A final step was the preparation of a daily agenda which in-
cluded all aspects of the production. This daily schedule served as a
reminder for equipment pick-up, transportation arrangements, inter-
views, shooting sequences, collecting background materials and data.

On-site Production

An on-site production schedule of one week was adhered to and
proved to be adequate, with the exception of two unforeseen schedule
changes. The first occurred when the contact person at a factory was
not on the premises and had neglected to leave permission for video-
taping. When the purposes and needs were explained, the union steward
objected vigorously to any photography of his men at work in the plant. Two hours of production time were lost while labor and management negotiations took place. The final result was that videotaping was allowed if no lights were used, no close-ups of plant personnel were taken and the time was limited to not more than thirty minutes. The main concerns appeared to be how the tape might be used, for example, in a time and motion study, and whether workers' safety would be jeopardized by bringing equipment into the work place.

The second scheduling problem was a late cancellation of an interview with a supervisor. Because of the limited time left, another management interview could not be scheduled leaving a void. In retrospect it would have been wiser to have had those agreeing to be interviewed identify an alternative person in case of a conflict.

The equipment chosen provided adequate picture quality and withstood the heavy use and travel, but its portability was questionable. The bulk, weight and number of items necessary became most wearisome as the week progressed. Each item was scrutinized as to its importance and size. A lighter weight camera with lower light needs would not only reduce the camera weight but would allow a lighter weight tripod to be used, and necessitate fewer lights, stands and extension cords. The audio mixer was first eliminated by using the camera audio input and the recorder audio input directly. The waveform monitor was used only when lighting problems were anticipated. Set-up time was reduced by re-packaging the equipment into essential, extra, back-up and maintenance items. Essentials were grouped and carried to the site each time; extra microphones or lights, etc. were assembled from the van as
needed. Backup items were left in the van unless needed. Maintenance, recharging batteries, head cleaning and other tasks were done each evening away from the site.

An on-going problem was the amount of production space needed. Equipment, lights, camera, and recorder cords hampered activity and blocked doorways of small offices; cords proved to be hazardous. This problem would be considerably less if smaller, more portable equipment were used; it should be a primary consideration in planning a location shooting.

The only major technical problems experienced were with the audio portion of the recording. The first day of video taping brought the problem of a background "hum". It was traced to a poor connection and made it necessary to retape the interview. A more serious problem developed when an intercom system of background music was received and recorded over the audio portion of an interview with an agency director. The video was checked immediately, following the interview, but the audio problem went undetected until after the director had left.

One of the most valuable aspects of videotape is the ability to play back the recording immediately. This feature was most helpful in assessing the content. Daily review of the interviews recorded provided an opportunity to analyze the tapes for the information gained, to identify areas yet to be covered, and to determine which questions were most effective in eliciting good responses.

Responses were remarkably candid, well-articulated, and spontaneous. The camera, lights and recording apparatus did not have a negative effect; they appeared to stimulate conversation. Following
each interview an opportunity was given to review the material recorded for any deletions or changes. This practice led to some additions and a sense of closure for participants.

On-site production proved to be strenuous, concentrated and sometimes frustrating to the production crew, but the process also provided a sense of reaching the essence of the program through total immersion. The work-site provided knowledge of the program that would have been impossible in the sterile surroundings of a studio. It allowed the excitement, commitment and energy of the work place to be transferred to film, and equally important was the opportunity for the production crew to gain insights about the program. In-depth knowledge is necessary to edit the footage gathered into a meaningful video statement.

Post-production

The post-production phase was the most difficult and time-consuming phase of the process. It was tedious because of the amount of material that had to be concentrated (eight hours of tape into a 15-20 minute program) and challenging because of the lack of story line or visually exciting material.

The first step in the process was to log the twenty-four tapes that had been recorded. This was accomplished by viewing each tape, identifying it by a number, describing the content by sequences, timing the length, and noting the general quality of sound and resolution.

The tapes were viewed again to decide what material would be most pertinent to the questions and would best reflect various points of
view. If ten students were interviewed and five responses were negative and five were positive on an issue, the two opposing views best typifying the answers were identified. Materials that were not useable because of technical problems were immediately eliminated.

The first edited version was a rough edit of the materials, sequenced according to the original script. Graphic materials were developed and inserted where needed. An introductory narrative was re-written using voice only over appropriate visuals. This version was viewed both formally and informally by media staff and those interested in the topic. The changes needed were: shorter sequences, more structure, and more visual stimulation.

In the second edited version the scenes were edited precisely, statements were shortened, music was added to the introduction, and graphics modified where necessary. Fast edits of several answers to one question was found to be effective in emphasizing a particular point. Effective sequences became clearly evident, as did those which should be deleted. A review of the videoreport by a media person and a consultant for the bureau of handicapped led to further revisions.

A videoreport did not clearly state what the purpose and intent of the program was. In the third edited version, a new introduction was taped this time with the reporter on camera. Again some sequences were shortened and another version of the closing was edited to summarize what had been stated. One objective during the editing procedure was to identify various formats that would lend themselves to videoreporting on educational programs. It was found necessary to add visual statements such as a three-minute collage of city and college scenes to
make the program visually stimulating and give organization to the video format. The summary found to be most satisfactory was a series of statements from students and administrators describing their personal experiences.

This third version was sent to Drake University Administrators for their comments and criticism. The response was generally positive with requests for more male answers, more statements from affiliate supervisors and removal of an inaccuracy in the narrator's summary statement.

The fourth and last edit included these changes. The names and titles of those being interviewed were electronically added.
Chapter 4

COLLECTION AND ANALYSIS OF DATA

Sample Selection

The first step in collecting the data was to identify a group who could be representative of government grant reviewers for rehabilitation programs. A list of state rehabilitation agencies provided the basis for such a group. Letters were written to six Directors and Commissioners of state agencies seeking their participation in the study. Follow-up phone calls resulted in five states agreeing to take part in the study. Each agency identified personnel who were active in grant evaluation and funding.

Tests were administered at the agency sites: Albany, New York; Hartford, Connecticut; Waterbury, Vermont; Boston, Massachusetts; and Trenton, New Jersey. Dates were set for times when traveling evaluators would be at the agency site.

Thirty subjects from the five agency sites were randomly assigned to three groups of ten each for either a video presentation, a written report, or a video presentation with a summary statement. All subjects were given the same directions both verbally and in writing. They then completed an attitudinal and cognitive pre-test (Appendix A). The written and video presentations were made simultaneously in separate rooms and were followed immediately by the post-test. Discussion as to the merits and problems of the three reporting methods was encouraged and comments were noted.
Test Used

The evaluation was made by comparing the change scores of each group on each device using single-factor analysis of variance as the statistic. The null hypothesis would be rejected if the .05 level of significance is reached. Participants were asked to indicate in writing whether (in their professional judgment) they would refund the model project or discontinue the program based on the presentation given. Comments from agency personnel following the testing procedure would be recorded and listed in rank order.

Statistical Techniques

A comparison of the change scores of each group shows that the greatest change in both the cognitive and attitudinal test was within Group I (video presentation). Group III (video report with a summary statement) had the highest final score on the cognitive test. Group II (written presentation) showed the least gain on either the cognitive test or the attitudinal test.

Table 1

Change Scores of Three Groups

<table>
<thead>
<tr>
<th></th>
<th>Group I - Video</th>
<th>Group II - Written</th>
<th>Group III - Video/Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>Pre 420</td>
<td>Pre 500</td>
<td>Pre 520</td>
</tr>
<tr>
<td>Attitudinal</td>
<td>Pre 178</td>
<td>Pre 162</td>
<td>Pre 180</td>
</tr>
<tr>
<td>Post 900</td>
<td>Post 232</td>
<td>Post 880</td>
<td>Post 920</td>
</tr>
<tr>
<td>Post 223</td>
<td>Gain 54</td>
<td>Gain 28</td>
<td>Gain 43</td>
</tr>
<tr>
<td>Gain 480</td>
<td>Gain 380</td>
<td>Gain 28</td>
<td>Gain 400</td>
</tr>
</tbody>
</table>
Two analyses of variance were conducted. The first compared the mean changes of the three groups on the cognitive test. The first hypothesis showed no significant differences in the comprehension of the project when presented in the written form, in the video form or in a combination of video presentation and written summary. The null hypothesis was accepted.

Table 2
Analysis of Variance
Cognitive Test

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>290.07</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Means</td>
<td>28</td>
<td>2</td>
<td>14.00</td>
<td>1.06(n.s.)</td>
</tr>
<tr>
<td>Within Groups</td>
<td>262.07</td>
<td>27</td>
<td>9.70</td>
<td></td>
</tr>
</tbody>
</table>

A second analysis of variance compared the mean changes of the three groups on the attitudinal test. The null hypothesis showed no differences in the attitude toward a project when the report is presented in a written form only, in a video format only or in a combination consisting of video report and written summary, and was rejected at the .05 level of significance.
Table 3
Analysis of Variance
Attitudinal Test

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>474.40</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Means</td>
<td>170.33</td>
<td>2</td>
<td>85.16</td>
<td>5.62*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>304.07</td>
<td>27</td>
<td>11.26</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05

A comparison of scores using the t-test was conducted between Group II (written report) and Group III (video/summary presentation). There was no significant difference at the .05 level for the value of t.

The comparison of scores of Group I (video presentation) and Group II (written format) using the t-test shows a significant difference in favor of Group I at the .05 level. A comparison of Group I and Group III shows no significant difference between the video presentation and the video/summary presentation.

The grant evaluators participating in the study were asked to make a professional judgment regarding the continuance or discontinuance of the program based on the presentation given. Those reading the written report voted to discontinue the program in 40% of the cases. Those reading the summary report and seeing the video presentation responded negatively in 10% of the cases. Those viewing only the video report had no negative votes.
### Table 4

Grant Recommendations

<table>
<thead>
<tr>
<th></th>
<th>Continue</th>
<th>Discontinue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I - Video</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Group II - Written</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Group III - Video/Summary</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 5

Rank Order of Negative Comments by Rehabilitation Agency Personnel Participating in the Study

<table>
<thead>
<tr>
<th>No. of Comments</th>
<th>Summarized Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>There should be more hard data included in the video report, such as number of students placed, budget narrative, clients placed, etc.</td>
</tr>
<tr>
<td>10</td>
<td>More supervisory interviews providing critical assessment of problems should be included.</td>
</tr>
<tr>
<td>7</td>
<td>The presentation is too positive, gushy, does not present the negative aspects.</td>
</tr>
<tr>
<td>6</td>
<td>There is a redundancy of student comments.</td>
</tr>
<tr>
<td>3</td>
<td>It appears that only the students with positive attitudes were interviewed.</td>
</tr>
<tr>
<td>2</td>
<td>It takes too much time to view video.</td>
</tr>
<tr>
<td>2</td>
<td>Both written and video reports would be necessary.</td>
</tr>
<tr>
<td>2</td>
<td>It would be too costly to use this approach.</td>
</tr>
<tr>
<td>2</td>
<td>Equipment is a problem for production and viewing.</td>
</tr>
<tr>
<td>1</td>
<td>It would not be practical to send such a report to other agencies or programs.</td>
</tr>
</tbody>
</table>
Table 6

Rank Order of Positive Comments by Rehabilitation Agency Personnel Participating in the Study

<table>
<thead>
<tr>
<th>No. of Comments</th>
<th>Summarized Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>The video report provides a greater understanding of a program than is communicated through a written report.</td>
</tr>
<tr>
<td>10</td>
<td>The video reporting is far more interesting than the traditional report.</td>
</tr>
<tr>
<td>9</td>
<td>The presentation was sophisticated and professional.</td>
</tr>
<tr>
<td>4</td>
<td>If refinements were made it would be an excellent agency evaluation tool for funded programs.</td>
</tr>
<tr>
<td>3</td>
<td>It would save time in understanding a program, i.e., the graphics were especially time-saving.</td>
</tr>
<tr>
<td>2</td>
<td>It achieved its purpose of making a positive impression.</td>
</tr>
<tr>
<td>2</td>
<td>A video presentation makes an excellent point of departure for discussion.</td>
</tr>
</tbody>
</table>

Additional Feasibility Trial

In addition to being tested at the state rehabilitation agencies, the video reporting system was presented to the Office of Human Development, Rehabilitation Services Administration, the federal agency which funded the Drake Placement Program. The video report was presented as a supplement to the written report in support of efforts to refund the program. This presentation provided the opportunity to test the feasibility of a video report under all the constraints of the refunding process.

The initial problem encountered was obtaining permission to
present material which had not been requested and might be influential in the decision-making process. Eventually a presentation date was arranged with the Director and staff. The appropriate video playback equipment was readily available within the same building complex of the Washington office.

On the date of presentation the author and five evaluators on the staff went to the television facilities, to be followed by the Director. The facilities were well-equipped with a large color monitor, quality video playback deck and quiet viewing area. The Director, whose presence was much sought after, did not join the group; he was confused by the "authorized personnel only" sign on the facilities door and returned to his office.

The presentation was made to the five program evaluators and was followed by discussion. Comments were directed to specific statements made in the tape. The group was evenly divided as to whether or not the program was meeting its objectives according to the guidelines of the grant. The group as a whole demonstrated recall of the statistics presented in the tape and referred to them throughout the discussion. They also referred to student responses to questions, which appeared to be most persuasive in determining their opinion of the program. A video sequence on banks, insurance companies and retail stores changed their opinion that Des Moines was limited to agriculturally related companies to a feeling that there was a wide range of work opportunities.

In discussing the use of a video report as an evaluation tool, the group felt that the tape would not replace an on-site visitation,
largely because their questions would be more in-depth and specific. For example, they would have required more information on the curriculum, more data to support the assertion that students were properly placed and more critical assessments of student placements by field site employers.

In the five evaluators' opinion, the most successful aspects of the presentation were the student and graduate interviews, which they felt provided an opportunity to "get the feel of what the students were like". They remarked that the presentation would make an excellent recruiting device and introduction to the program.

It was unanimously agreed that the written reports were monotonous and biased, and that they did not provide critical assessments of the programs. This was of particular concern because funds were not available for on-site visitation and decisions were presently being made on the basis of written reports.

It is not possible to say whether the video presentation influenced the five evaluators in their decision to refund or discontinue the Drake program. However, later that month the Drake program was refunded while two similar programs were discontinued.

Analysis of Data

Analysis of Test Data Hypothesis:

There is no difference in a reviewer's comprehension of a project when the evaluation is presented in written form only, in video format only, or in combination consisting of a video presentation accompanied by a written summary.

The acceptance of this hypothesis is consistent with previous studies.
It also demonstrates that the content presented was similar to the extent of the content validity of the cognitive test.

The Second Hypothesis:

There is no difference in a reviewer's attitude toward a project when the evaluation is presented in a written form only, in video format only, or in combination consisting of a video presentation accompanied by a written summary.

The rejection of this hypothesis demonstrates that the medium used to present information does make a difference in the attitudes created. Further differentiation between the use of a video presentation and of a video presentation with a summary report brought surprising results. Applying the t-test at the .05 level, a comparison of Group II (receiving the written presentation) and Group I (receiving the video only presentation), a significant difference in favor of Group I was demonstrated. However, when the Group II (written presentation) was compared with Group III (video/summary) using the t-test there was no significant difference in the attitude change.

The expectation on the part of the author was that the video with summary sheet would have an equal effect on the attitudinal change as the video only. This proved not to be true.

Based on the findings of the study, it appears that the addition of the video/summary did not produce the same degree of attitude change as the video report. The reason for this is not clear. One possible explanation is that the written summary was a distraction which lessened the impact of the video presentation.
Analysis of Summarized Comments

The agency evaluators' comments following the testing procedure are interesting in that they represent how a grant reviewer perceives the reporting process. Their need to sift data, locate weaknesses, document strengths, and to determine if objectives are met, were very much in evidence. An institution's effort to present its best attributes and to persuade and convince reviewers that their program is worthy must take into account the reviewers' perspectives.

For example, the need for repetition to strengthen a concept should also take into consideration the level of reviewers' annoyance about redundant comments. Refinement of this technique might reduce the amount of repetition necessary.

A common complaint was the lack of hard data in the video report. Hard data can be advantageous to both the grantor and the grantee if it is positive. Emphasis on negative data is not appealing to an institution and will be avoided unless mandated. In the case of the Drake program, additional positive data could have been included but was excluded because of fear of statistical boredom. This did not take into account the grantsman's appreciation for figures, comparisons and factual material. A concern expressed a number of different ways was that there was too much emphasis on the positive and not enough critical assessment. The use of more graphs, figures and information on how the selection for interviewing was accomplished might alleviate this concern. A less enthusiastic, more objective reporting style might also provide a feeling of more objectivity. Interviews
with more supervisors is a valid suggestion; however, the critical assessments might not be forthcoming.

A disadvantage of video presentations identified by some reviewers is the time required to view tapes. It is not possible to scan the material. A twenty-minute tape requires the full twenty minutes to review; however, as pointed out, it is generally more interesting. An additional advantage to the presenter is that it is usually watched in its entirety.

Concern was expressed about the feasibility of using video presentations in terms of cost, equipment availability and dissemination. These are issues capable of stopping even experimental use. It was generally agreed that production costs cannot exceed the budgetary allowances for evaluation and dissemination. This would presently limit the use of video productions to well-funded grants. Availability of television equipment and media personnel would also be a factor. The rehabilitation agencies visited had video equipment available in every case. Video cassette playback/recorders and monitors were available within the facility as well as media personnel in three out of five cases. The future applications of video technology will be directly affected by the cost, ease of production and universal format for equipment.

The most common and positive comment was that the video presentation provided a greater understanding of the program than that communicated through a written report. This indicates that if more information is needed for the decision-making process, then video presentations are a viable alternative.
Chapter 5

SUMMARY AND CONCLUSION

Description of Problem

The problem studied was how an educational program such as the Drake Rehabilitation Placement Program can best report its goals, activities and achievements to the sponsoring federal agency.

Traditionally, final reports have used the written format which lends itself well to the presentation of such facts and figures as number of recipients, funds dispersed, and activities completed. However, the overall purpose, design and effectiveness of a program are influenced by the writer's singular perception of the program and his/her ability to translate that perception undistorted into written form.

It was the purpose of this study to determine whether videotaped reports can provide an effective solution to agency reporting needs, both programmatically and technologically. The need for such a study has been suggested by the fact that while communications technology has advanced enormously and offers an array of options for effective reporting, practical applications have been few thus far.

Research Methodology

A video reporting system was designed to meet the purposes of government reports. A video report about the Drake Rehabilitation Placement Program was produced using this design. A second version was developed using a video report accompanied by a written summary. The
effectiveness of these experimental models was compared with the
written report prepared by the program administration.

The video report was taped on the Drake campus, at field sites
for the Rehabilitation Placement Program, and at the work places of
program graduates. Interviews with the Director, faculty, students,
supervisors, and graduates provided the information needed. The video
report was produced on 3/4 inch color portable equipment, edited and
revised.

The population participating in the evaluation were rehabilitation
specialists from five rehabilitation state agencies involved in
the assessment of government grants. From this population, three
groups of ten were randomly selected. Group I viewed the video tape,
Group II read the written report, and Group III viewed the video tape
and read a summary report.

A test was designed to determine the level of a viewer's cog-
nitive understanding of the placement program. A second instrument
was designed to identify viewer attitudes toward that program.

Subjects were pre-tested, presented one reporting model and
given post tests on the cognitive understandings and attitudinal con-
cepts.

<table>
<thead>
<tr>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-test</td>
<td>1. Pre-test</td>
<td>1. Pre-test</td>
</tr>
</tbody>
</table>
Findings

Two analyses of variance were conducted. The first compared the mean changes of the three groups on the cognitive test. The null hypothesis that there were no differences in comprehension of the project when presented in written form only, in video form only, or in a combination consisting of a video presentation and written summary, was accepted.

A second hypothesis, that there are no differences in a reviewer's attitude toward a project when the report is presented in a written form only, in video format only or in a combination consisting of video report and a written summary, was rejected at the .05 level of significance. A further comparison of scores using the t-test, between the attitudinal test and for the written group and the video/summary group revealed no significant difference. A comparison of the attitudinal test for the written and video only was significant at the .05 level favoring the video only presentation.

The grant evaluators participating in the study were asked to make professional judgments regarding the continuance or discontinuance of the programs presented. In 40% of the cases those reading the written report recommended the program be discontinued. Those reading the summary and seeing the video report responded negatively in 10% of the cases. None of those seeing the video only voted to discontinue the program.
Discussion

Federal Reporting

Federal grant project reports are prepared for a variety of purposes. An agency requesting a report seeks a basis for judging a project's compliance with regulations, its degree of consistency with proposal objectives, the quality of the project's services, its management, its impact and its replicability. The depth of the report in particular areas depends upon the goals of the agency or group requesting the report.

The grantee is concerned with reporting on its grant in a manner which will result in the continuation and refunding of the program. A report can strengthen positive attitudes and attract external support. Project reports can also be used to provide internal institutional support. Reporting on a project becomes a way of apprising the institution of what is happening or has happened as a result of the expenditure of effort and time. Depending on their format, project reports on academic programs can also be used to support recruiting efforts.

A survey of program purposes and federal reporting elements has shown that while the reporting needs of various grants are similar, a common framework for reporting federal grants does not presently exist. Each grantor and grantee determine the content and mode of presentation for the reporting procedure. Despite technical developments in the fields of computers, television, and information processing components, comparatively little research has been done to discover how technology can assist in better dissemination of federal project results.
The most common mode of reporting is written communication. Oral reports are often presented to summarize the written report. Other modalities such as film, video tape, and audio-tape recordings are not commonly used.

There is a need for a universal reporting format that can accommodate a wide variety of specialized programs and provide the means for better dissemination of information. Both the agency's need to judge the quality of the program and the institution's need to have the opportunity to present its most worthy attributes, should be brought together for universal comparison and documentation.

**Attitudes**

It is assumed that attitudes and opinions influence the understanding and evaluation of a communication. An appreciation of the manner in which these attitudes are formed is therefore crucial in identifying what cues, knowledge, and understanding need to be communicated to affect them.

While theories vary as to how and why attitudes change, there seems to be a consensus on what influences a person to accept a new opinion. Influencing factors are: the need or interest to change; the acceptance of the source (its trustworthiness and prestige); verbalization of the new attitude; and experiencing a new event.

These influencing factors should be considered in designing a communication. Interest can be assured if the content is directed toward a specific audience which needs the information presented. Acceptance of the source can be encouraged if the source is primary and
the cues available for trustworthiness are both verbal and non-verbal. Overt verbalization needs to be incorporated in the process of presentation.

Finally, communications which most closely approximate actual experience should be used. Documentation of actual happenings can to some extent provide an experience that will have the emotional and visual impact of reality. Opinions tend to persist unless an individual undergoes some new learning experience. Acceptance of a communication is dependent on how it affects previously held beliefs, how it will affect future actions, and the validity of the event. Communications that are not believed to be valid are rejected, the message is never received and the level of knowledge is unchanged.

A number of comparative media studies have shown that film has the most persuasive power because of its capacity to reconstruct an experience and convey emotion. Film or video tape has the ability to bring direct experience to the viewer. This medium has the potential to meet the criteria for instruments of attitude change.

The Design

The objectives followed in designing the video report were the following:

1. to demonstrate the program's accountability by documenting its operation;
2. to provide project administration and staff with information helpful in making changes;
3. to solicit information useful in determining the extent to
which the program met its objectives;

4. to provide an understanding of the program for future dissemination; and

5. to provide a basis for deciding whether or not to continue the program.

Documenting the Program

To document the program's operation it was decided to tape on location rather than in the studio. This proved to be far more strenuous than anticipated, largely because of the equipment requirements. The availability of smaller more portable equipment would alleviate this problem for future productions. The documentary footage was useful and effective in the presentation. The few sequences reconstructed for the camera were less effective and in one case misleading. A simulated phone call gave a negative impression rather than a positive one which would have been demonstrated if the footage was truly documentary. More time would be required for taping only actual happenings but it would provide true accountability.

Future Change

Program participants were interviewed on-camera about future program changes. Their responses were candid, spontaneous and well-articulated. The camera apparently had the effect of encouraging honest and forthright answers. The author was amazed at the interviewees' openness and willingness to answer all questions. The interviews were the most successful sequence; the reviewers identified them as helpful in evaluating the program. Interviews with supporting
agencies resulted in on-camera statements which matched almost identically the letters of support given in the written report, but the on-camera version was convincing and interesting.

The reviewers frequently mentioned interviews with administrators and faculty on which they relied in assessing individual philosophy, attitudes, and knowledge.

One negative response regarding the interviews was the need for more interviews with supervisors and placed clients. Another was an apparent bias toward students with positive attitudes. Students were selected on the basis of their availability and the activity engaged in. To alleviate concerns of bias a random selection could be performed.

The questions that proved most successful in provoking interesting responses were those that required the interviewee to rank personal experiences and relate the "most worthwhile aspect" and "the thing you would most want to change". These responses were edited to assure repetition of a concept and to change attitudes toward it. The repetition brought some negative comments but was none-the-less effective as a technique in changing attitudes.

Data needed to determine whether the objectives of the program were met were presented graphically. The figures shown were remembered, referred to and discussed at length in the presentations. However, the material presented was inadequate in quantity to satisfy the reviewers' needs.

According to the reviewers the hard data missing were: needs assessment (number of handicapped in the area); number of clients
placed by students; budget materials; and institutional curriculum and personnel supporting the program. Certainly more hard data could be incorporated into a video report effectively. The agency and institution would simply have to determine in advance what detail is to be included or excluded.

To provide a useful communications vehicle about the program, it was necessary to present the program in a manner understandable to the layman. The tape version provided a public relations tool as a recruiting device and a means of relating to the public.

Although the tape was successfully used in these ways, they constituted secondary purposes. Had public relations been a primary purpose, the tape's objectives would have been different and the production would have been prepared from another perspective.

The final and perhaps most important purpose was to provide the funding agency with a communication which would assure the continuation of the program through refunding.

The report was presented to the Office of Human Development, Rehabilitation Administration, the funding agency for the Drake program. While it is impossible to determine if the report had an influence on the program evaluators, the program was refunded while two similar programs were not. The comments and criticisms expressed by the Washington agency were consistent with those of state agencies visited following the testing process.
Feasibility of Using a Video Reporting System

The feasibility of using video reports should be considered both from the technological point of view and the human acceptance of the concept. We are further advanced technologically than most people are willing to accept. We have at our disposal technology which offers color video cameras the size of an 8mm camera and video recorders the size of tape recorders, with the same ease of operation. Computer editing equipment allows precision electronic edit points to be selected and executed without physically touching the tape. The video disc offers the option to record the video image and produce multiple copies at a low cost with digital access to any point on the platter.

Technology does not become useful until it becomes commonplace and its value is generally accepted. We are presently in transition from television communications as a luxury to television cameras and recorders as home appliances. As the consumer becomes familiar with their value, the applications become much clearer. Business corporations have already embraced television as a means of communicating. Government applications are growing; the medical field's constant need to update training has led the way to the use of television programs in both office and home. Video's feasibility becomes a question of finding the point in time when the problems surrounding its use are not insurmountable and will not interfere with the user's purpose. Feasibility of video reports increases daily. For example, production equipment costs have drastically changed in the last six months. Institutions are committing themselves to communication by satellite and cable, and
equipment is being upgraded and added to facilities. New applications are being attempted and more personnel are becoming familiar with its use. As the use of video tape recording becomes more familiar at home, applications at work become clearer and new uses develop. However, budgets and personnel are limited and each situation presents different parameters.

The criteria for determining whether the use of a video report is feasible should involve 1) size of the project (in terms of funds and personnel available for the effort), 2) need for dissemination of information (to promote modeling or gain public support to demonstrate a theory), 3) acceptance of video reporting by the funding agency (unthreatened by its use and has the facilities and equipment for using it).

While the cost has dropped considerably, the average production cost per minute is $500-$800. This figure can be reduced if equipment and personnel are available, but it is considerably higher than the cost of a written report. Funds for the production of a video report would come from the program's evaluation and dissemination line items. The need for dissemination could justify the expenditure of larger sums. If the primary purpose of the grant is to demonstrate a concept and produce modeling then a larger portion of the budget would be appropriate to achieve this objective.

If the funding agency involved with the institution does not feel this is an appropriate way to communicate, either because it is perceived as unfair to other institutions, will interfere with agency objectivity, or is an unjustified expense, the use of a video report
would be unadvisable.

A video reporting system holds the potential of communicating a better affective understanding of government programs. Its feasibility is currently determined by cost, time, personnel and equipment factors. The trend is toward lower cost, simplified operation, portability, and more sophistication. The future promises to make the process far more technologically feasible.

Acceptance of the video medium as a legitimate means of communications and assessment will depend upon development of a reporting design that can meet the needs and purposes of both the institution carrying out a federal program and the federal agency funding the project. This study has made a first effort towards designing a system for video reporting.

Conclusions

1. The cognitive material from a report can be communicated equally well in a video presentation, a written format or a combination of the two.

2. The video presentation is more effective in changing attitudes than the written format.

3. The feasibility of using the video presentation depends on the availability of funds for production, access to video equipment and technical skill.

4. The use of a video report can influence an evaluator's opinion of a program.
Recommendations

The findings indicate many areas for refinement and improvement. It is recommended that further refinement of the model design be accomplished through use of video reports by federal agencies in conjunction with funded institutions.
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APPENDIX A

TESTING INSTRUMENTS
DIRECTIONS

Assume that you are in a position which forces you to determine the continuance or discontinuance of the Drake Rehabilitation Placement Specialist Grant. The budget is limited, the refunding of this project will eliminate the consideration of new programs. The decision must be based only on the information presented in the report. Your perception and knowledge of the program will be tested before and after the report is presented. It is assumed that the majority have no previous knowledge of the program. You will be asked to determine if the program is to be funded based on your perception of the validity and worth of the program. The purpose of this evaluation is to determine whether there is a difference in the knowledge and attitudes toward a project if it is presented in a written form or if it is presented through the visual medium.
Please fill out this form based on your knowledge of the Drake Rehabilitation Placement Program.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a need for training personnel specializing in job development and job placement for the disabled</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>2. The field-work assignments of the Drake program are successful learning experiences.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>3. The geographic location of Des Moines, Iowa limits the opportunities for students to work with business and industry.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>4. The program is having a positive impact on area businesses, rehabilitation agencies and disabled individuals.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>5. The Drake students are enthusiastic in their approach to job placement.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>
Pre-Test

Please circle the answer most likely to be correct based on your present information about the Drake Rehabilitation Placement Program.

1. The primary objective of the Drake Rehabilitation Placement Program is:
   
a. train students in vocational counseling.
b. train students in the competencies necessary to return the disabled to gainful employment.
c. to train students specifically in the counseling skills necessary for rehabilitation.

2. The business community of Des Moines, Iowa, can best be described as:
   
a. primarily composed of agriculturally based businesses.
b. primarily made up of light industry, with banks and insurance companies predominating.
c. represented by a wide range of heavy industry, light industry and merchandising firms.

3. The curriculum design of the Drake program is built on field-work assignments which are given:
   
a. half the credit hours required.
b. one-third the credit hours required.
c. three-fourths the credit hours required.

4. The percentage of Drake students employed following graduation is:
   
a. 89%
b. 90%
c. 100%

5. The major task of a Rehabilitation Placement Specialist working for a private business would be:
   
a. compliance with Section 503.
b. consulting with public and private rehabilitation agencies.
c. actively placing the handicapped in jobs.
POST-TEST

Please fill out this form based on your perceptions of the Drake Rehabilitation Program.  

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a need for training personnel specializing in job development and job placement for the disabled.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>2. The field work assignments of the Drake Program are successful learning experiences.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>3. The geographic location of Des Moines, Iowa limits the opportunities for students to work with business and industry.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>4. The program is having a positive impact on area businesses, rehabilitation agencies and the disabled.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
<tr>
<td>5. The Drake students are enthusiastic in their approach to job placement.</td>
<td>SA</td>
<td>A</td>
<td>N</td>
<td>D</td>
<td>SD</td>
</tr>
</tbody>
</table>

_____ The Drake Rehabilitation Specialist Program should be refunded.

_____ The Drake Rehabilitation Specialist Program should not be refunded, funds should be made available for other programs.
Post-Test

Please circle the correct answer based on the information presented in the report.

1. The primary objective of the Drake Rehabilitation Placement Program is:
   a. train students in vocational counseling.
   b. train students in the competencies necessary to return the disabled to gainful employment.
   c. to train students specifically in the counseling skills necessary for rehabilitation.

2. The business community of Des Moines, Iowa, can best be described as:
   a. primarily composed of agriculturally based businesses.
   b. primarily made up of light industry, with banks and insurance companies predominating.
   c. represented by a wide range of heavy industry, light industry and merchandising firms.

3. The curriculum design of the Drake program is built on field-work assignments which are given:
   a. half the credit hours required.
   b. one-third the credit hours required.
   c. three-fourths the credit hours required.

4. The percentage of Drake students employed following graduation is:
   a. 89%
   b. 90%
   c. 100%

5. The major task of a Rehabilitation Placement Specialist working for a private business would be:
   a. compliance with Section 503.
   b. consulting with public and private rehabilitation agencies.
   c. actively placing the handicapped in jobs.
VIDEO

Des Moines street scenes
people entering work places.
Drake campus, student entering class buildings

Title being typed
"Summary Video Report of Rehabilitation Placement Program."

Years 1976-1978
Submitted by Project Director Howard Traxler

Campus, Memorial Hall
Students on campus
M.S. inserts of interview exterior of plant filling in form talking on phone

M.S. Students walking up to building.

C.U. administration walking in, student opening door.
Adult leaving building
Mo — M.S.

AUDIO

Music

Sound of typewriter v.o.

v.o.

This is a video report designed to summarize the Rehabilitation Placement Program through the use of interviews, on-site visitations and data collections.

The report will examine the project from a variety of viewpoints. We will look at the program from the perspective of the administration, the faculty, the students, the community participants and its graduates.

This is an effort to bring to you a direct assessment of the project through the use of the television medium. Let's begin by interviewing Dr. H. Traxler, Director of the project.