

UTILIZATION OF AUDIOVISUAL MEDIA FOR TRAINING
BY LA CROSSE, WISCONSIN EMPLOYERS

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ABSTRACT

The study involved contacting La Crosse, Wisconsin employers to determine their use of audiovisual media in the training of employees.

A questionnaire was provided asking information related to the training programs of the individual employers. The questions were designed to provide an insight into the general attitudes of the employers toward education, and more specifically, to observe the employers use of audiovisual media in the training programs.

The information needed was collected through personal interviews, or in some special situations by telephone conversations. The sample consisted of eighty-nine employers from the La Crosse area. Each of these were contacted and it was ascertained that seventeen employers, 19.12 percent of the sample, used some form of audiovisual media for employee education. During February and March of 1973, these seventeen employers were interviewed and the resulting information was compiled.

From the data collected, appropriate tables were

constructed and various aspects of using audiovisual media for training were discussed. Analysis of the data received indicated that the most popular forms of audiovisual media used by the seventeen employers interviewed were 16mm film projectors and videotape systems. The reasons given for this preference were availability, adaptability, flexibility, and versatility of the mediums.

The employers revealed that there was an increased need for software in most of their specialized areas. They also made reference to the cost factor of using audiovisual material; they said it was expensive and did not reduce the cost of training. They agreed that using media did make the training of personnel more effective. The use of media was considered beneficial by all of the employers interviewed.

Future use of media will depend on cost and availability of material. There was a great deal of enthusiasm concerning the use of media, especially the more recent development of video equipment. A number of employers mentioned this as a form of media they were interested in acquiring for training purposes.

In general, the study provided information used to conclude that the use of audiovisual media in industrial education for the La Crosse area is similar in nature to the use of media in the schools. There were several cases where employers had adapted audiovisual media for specific individualized needs.

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Chapter 1

INTRODUCTION

In the 200 years of our nation's history, our society has witnessed a number of growth cycles. The first cycle pertained to the production of food. There was little need of anything other than the basic necessities of life; food, shelter, and clothing. Thus, Americans became an agriculturally-oriented society. This went on for decades until the advent of the machine age, whose far-reaching ramifications were to have a profound effect on all Americans. The "industrial revolution," as it is more commonly referred to, altered the entire prospective of the nation. Even the agricultural community itself became mechanized. The effect of the revolution was so magnanimous that volumes of new information about every conceivable subject were gathered. This was possibly a result of the complexity of the industrial society that the United States had become. Because of the new knowledge that the American people had acquired, they were forced to review the existing philosophy of education.¹

¹Robert M. Fulmer, "The Future of Training for the Future," Training in Business and Industry, Vol. 9, No. 2 (February, 1972), p.40.

Why had our society become so engrossed with the idea of education? Perhaps it was that the industrial society had become so overwhelmingly complex that the existing educational processes were unable to comprehend the problem; that of transmitting vast amounts of information to students in an effective and reliable manner. Educators and industrialists were alerted to the situation and efforts were made to develop new and innovative approaches in deploying the information to the students.² Some of these ideas came in the form of audiovisual media. The result was widespread use of media as an educative tool. Care must be exercised not to associate the term, educative tool, with a strictly formal educational environment. The need for effective education was not confined to formal education alone. Industries and businesses had become more complex and sophisticated which required more efficiency from employees to manage, sell, and manufacture the products. Most employers required specific abilities of their employees and these special qualities were generally not attained through normal educational systems. Most employers had their own in-service programs which were designed to meet specific needs of the company.³

²Susan Englehart, "The Copyright Confusion: Will We Kill the Goose that Lays the Golden Eggs?" AV Guide, (December, 1972), p.11.

³S. Dunwoody and C. F. Moore, "New Approach to In-Plant Training," Instrument and Control Systems, Vol. 43 (August, 1970), p.32.

Because formal education had witnessed an increased emphasis concerning the use of audiovisual media in the school systems, it may be logical to consider that there was also an increase in the educational use of audiovisual media in business and industry, since employers also had to transmit more information faster and more reliably to their employees.⁴

In order to ascertain how media had affected industry, it was necessary to engage in a study aimed directly at the employers training programs. A study in this area might prove to be valuable to both employers and educators.

The study could show that the use of audiovisual media in industry is basically the same as in education. Employers should be able to see how their programs relate to other training programs in the La Crosse area. Educators should be made aware of the importance of education in business and industry. This is important because educators must realize that education exists at many different levels and at each level it is as important as any other level. Education is a matter of relevancy; education justifies its own means and the use of audiovisual media is important in any relevant learning process. The emphasis of media usually lies in the formalized structure of education. This study

⁴M. Jaffurs, "Campus and Industry Educators Throw Out Some Old Training Concepts and Report on the New," Instrumentation Technology, Vol. 17(August, 1970), p.14.

is designed to focus on the educational use of media in business and industry.

THE PROBLEM

Statement of the Problem

(1) To determine to what extent audiovisual media and equipment was being used by eighty-nine La Crosse area employers.

(2) To consider how the media was being utilized in conjunction with the various training programs presented by the La Crosse employers.

(3) To determine which medium was most popular with the employers.

(4) To consider why the employers used audiovisual media in the training programs.

(5) To consider the present and future plans concerning the use of audiovisual media.

(6) To determine the percentage of the sample of La Crosse employers that used audiovisual media for training purposes.

Limitations of the Problem

The problem was limited by the number of and different types of employers in the La Crosse area. The researcher made every effort to insure a varied sample of La Crosse employers. Certain employers, such as schools and small retail businesses, were omitted because the

researcher felt that these employers were of a different nature than the other employers that were contacted.

The problem was further limited by the questions that made up the survey. Because of the variations in the types of employers that were interviewed, it followed that a single questionnaire designed with finite questions could not allow every employer interviewed to have a definite answer for each of the questions asked. For this reason, some of the employers interviewed exercised the option of deleting those questions which did not apply to their particular situation or did not have the necessary information at their disposal.

Importance of the Study

The importance of the study could best be determined by examining the role of knowledge in a heretofore industrial society.

In the 1960's and 70's, our society had undergone what some futurists, such as Bell of Harvard University, explained to be a "knowledge revolution."⁵ This "knowledge revolution" was in the process of phasing out the "industrial revolution," which for so long had been the dominant factor in the stability of the United States economy.⁶ According to News Front magazine, "The knowledge industry accounts for one-third of the entire economy and is growing

⁵Fulmer, loc.cit. ⁶Ibid.

twice as fast as the rest of the economy."⁷ This statement does not infer that industry in the United States will cease to exist or reach such levels as not to be able to supply a growing nation the necessary commodities to keep it growing. At one time, the "industrial revolution" overtook the agricultural society that existed in the United States, but the "industrial revolution" did not completely eliminate agriculture. By the end of the 1960's, only 5 percent of the labor force was employed in agriculture, yet Americans ate better than the people did a century ago when 55 percent of the labor force was committed to agriculture.⁸ Apparently, the "industrial revolution" aided agriculture, even though the revolution replaced agriculture as the dominant factor in the economy of the country. What is important then, is for our industrialized society to realize that education is not going to eliminate industry, but rather with proper insight and application, industry and education should be able to coexist.

The researcher noted that one very characteristic problem concerning education, especially at the university level, is the apparent lack of emphasis on the concept of industrial education. When education is discussed, it is invariably within the boundaries of formalized education and its institutions. The importance of industrial education has been noticeably ignored in almost every phase

⁷Ibid. ⁸Ibid., p.41.

of education, except in the technical institutions where the emphasis is very much on training students for jobs in industry. The lack of emphasis on education in industry becomes very evident when someone requiring information concerning industrial education attempts to obtain the information from library sources.⁹

Most educators are aware of the impact that audio-visual media has had on education in schools, but many may not be aware of how audiovisual media has affected industry. This study was intended to give some insight into how industry has adapted to the use of media in its educational processes by determining what media was used and how it was used.

For these reasons, a study of the educational process in industry is important because it draws attention to a neglected area of education, especially concerning the use of audiovisual media. By going out to the employers and discussing their attitudes about media in training, we may find that education and industry might be able to assist each other in developing more effective methods of using media for teaching.

Definition of Terms

Audiovisual media. The term commonly used to refer

⁹F. Mayo, "Education on Industry: Some Observations on Current Problems," Chemistry and Industry, (July 19, 1969), p.66.

to those instructional materials that may be used to convey meaning without complete dependence on verbal symbols or language.¹⁰

Classroom instruction. A controlled environment for the educative process, usually associated with a formalized educational procedure.

Development consultant. A person contacted by an employer to come into a company and provide training to the employees. Consultants may use existing training programs or may develop new ones.

Hardware. The term usually associated with the audiovisual machinery or equipment.

Individualized instruction. Programs and lessons that are tailor-made to an individual's learning requirements and his characteristics as a learner.¹¹

Programmed instruction. A learning experience in which a program takes the place of a tutor for the student, and leads him through a set of specified behaviors designed and sequenced to make it more probable that he will behave

¹⁰David H. Curl and Carlton W. H. Erickson, Fundamentals of Teaching with Audiovisual Technology (New York: The Macmillan Co., 1972), p.165.

¹¹Horton Southworth, "A Model of Teacher Training for the Individualization of Instruction," Perspectives in Individualized Learning, ed. Robert A. Weisgerber (Itasca, Ill.: Peacock Publishers, Inc., 1971), p.249.

in a given desired way in the future.¹²

Self-instruction. Programs of educational materials from which students learn. Programs can be used with many types of students and subject matter, either by themselves, or in combination with other instructional techniques.¹³

Software. The term associated with the audiovisual media; the visuals, slides, tape recordings, videotapes, and other forms of media.

Organization of the Remainder of the Study

The remainder of this study is as follows: in Chapter 2, current literature is discussed as it relates to the subject of this study; in Chapter 3, the procedure of obtaining the sample is explained as well as the development of the questionnaire and how the data was treated; in Chapter 4, the responses given to the questionnaire are discussed; the results of the study and the conclusions obtained are summarized in Chapter 5.

¹²Wilbur Schram, Programmed Instruction (Washington: Library of Congress, 1962), p.3.

¹³Paul I. Jacobs, Milton H. Maier, and Lawrence M. Stolurow, A Guide to Evaluating Self-instructional Programs (New York: Holt, Rinehart, and Winston, Inc., 1966), p.1.

Chapter 2

REVIEW OF THE LITERATURE

In this chapter, some of the recent literature, as it relates to this study, will be discussed. The majority of the literature concerning the use of audiovisual media for training in industry was from articles that appeared in various issues of the Training in Business and Industry magazine.

In reviewing the literature available, it appeared that the articles could be used to delineate the basic attitudes of business and industry towards educational use of audiovisual media. Further, the criteria for using audiovisual media for employee training could be analyzed. Lastly, the articles could be scrutinized to define some of the reasons that business and industry use media to teach employees.

Over the years, there has been a tremendous increase in the rate at which man produces and distributes information. Since the industrial revolution, this rate has multiplied by hundreds or even thousands of times.¹ According

¹Susan Englehart, "The Copyright Confusion: Will We Kill the Goose that Lays the Golden Eggs?" AV Guide, (December, 1972), p.11.

to Susan Englehart, "Mass production and newer electronic devices will continue to accelerate the flow of available knowledge."² Because of the increase in available information, education has been forced to adopt innovative approaches to transmitting the information to the learner. The learner in turn, has had more information injected into him and is expected to retain more information for longer periods of time. Thus, the problem is, how do we transmit this information to the learner and get him to accept and retain it? The obvious answer might be to "teach." However, it is possible to conclude that to teach is not enough. A more viable approach to education is to motivate, stimulate, inspire, influence, and change the student rather than to be content to just "teach" him.³ In a sense, the preceding could very well provide a model for the use of audiovisual media in education.

Education at the business and industrial levels has "tuned-in" to audiovisual media. Educators in these areas have realized that proper use of media can greatly enhance their training processes. They appear to respect media as an educative tool that is a basic necessity for effective education in business and industry. In an article entitled, "A Model for Media Development," which appeared

²Ibid.

³David H. Curl, "AV Training," Training in Business and Industry, Vol. 7, No. 5 (May, 1970), p.10.

in the January, 1969 issue of Training in Business and Industry, Dennis Pett said "Effective communication media are essential to move even a small fraction of available knowledge from those who know to those who need to know, in such a way that they can use that information"4

The article stressed the importance of media as an "educative tool" for industrial training and emphasized media development as a means of training people with individualized differences, which includes all people in one way or another.5

Ross H. Dyer, author of an article entitled "AT&T Training Centers are Heavy on AV and PI," pointed out some of the reasons that he felt were important for using audiovisual media in the training programs of AT&T. In his article. Dyer said the following:

AT&T's Long Lines Division tries to standardize training.

Audiovisual can increase comprehension. Essentially, audiovisual techniques are effective because the student must listen as well as look, thereby enhancing the transfer of knowledge. As a result, we not only teach more in less time, but also increase the students' comprehension and retention of complex material.6

In another article that appeared in the October, 1968

⁴Dennis W. Pett, "A Model for Media Development," Training in Business and Industry, Vol. 6, No. 1 (January, 1969), p.25.

⁵Ibid.

⁶Ross H. Dyer, "AT&T Training Centers are Heavy on AV and PI," Training in Business and Industry, Vol. 6, No. 3 (March, 1969), p.33.

issue of Training in Business and Industry, J. E. Hinkley said:

Audiovisuals enhance presentations and increase impact by providing a change of pace and by stimulating increased audience participation. More important, they help the audience better understand and assimilate the subject matter.

Experts in communication have estimated that we learn 11 percent of what we hear and 83 percent of what we see. We retain 20 percent of what we hear and 50 percent of what we both see and hear.⁷

The use of media does not have to be limited to conventional use of media. Rather, as David Curl pointed out:

Media can be used in novel ways to stimulate individual participation It can insure consistently high quality instruction, with even more versatile and convenient learning systems anticipated Media alone can teach, if employed in a humane environment. Media can perform many of the repetitive chores that instructors and supervisory personnel are accustomed to doing by lecture and coaching ——— it frees human beings for humane work; interviewing, counseling, guiding, and reassuring.⁸

By reviewing these articles and extracting specific details, a list of significant factors concerning the reasons employers use media for training was assembled. The list contained the following: (1) standardize training; (2) move available knowledge; (3) increase comprehension; (4) increase retention; (5) enhance presentations; (6) stimulate participation; (7) insure consistently high quality

⁷J. E. Hinkley and G. A. Mitchusson, "Planning for AV," Training in Business and Industry, Vol. 5, No. 10 (October, 1968), p.29.

⁸Curl, loc. cit.

instruction; and (8) perform repetitive presentation chores. Although this list may not be complete, it does afford an insight into the basic attitudes of business and industry towards audiovisual media in their training programs for employee education. As will be seen later in the study itself, the reasons that were given by La Crosse employers for using media were quite similar to those described above.

The goals and objectives of a training program should involve the continual upgrading of personnel to obtain skills, knowledge, and attitudes needed to meet present and known future needs within the industrial and business community.⁹ How does industry define the objectives of a media oriented training program? There were several articles from various issues of Training in Business and Industry which provided an insight into the criteria that business and industry found important concerning the use of audiovisual media in employee education.

In one of these articles, Richard Beckman, Director of Audiovisual Services at the University of Wisconsin-Eau Claire, states, "Use audiovisual techniques only to reach previously set, clear-cut objectives, not as an end in itself."¹⁰ Beckman went on to say, "Good audiovisual

⁹"In-House Training of Computer Personnel," Training in Business and Industry, Vol. 9, No. 4 (April, 1972), p.47.

¹⁰Mary Dee Tans, "Want to Get Technical Types to Teach," Training in Business and Industry, Vol. 8, No. 1 (January, 1971), p.41.

planning implies that the trainer define the audience, establish the need, determine the behavioral objectives, prepare a content outline, research the subject, and consider a method of instruction."¹¹ In the article, "A Model for Media Development," Dennis Pett agreed with what Beckman said. Pett said, "One way to look at the media development process is to consider the delineation of the audience, objectives, content, and choice of media as pre-planning"¹² Thus, the foundation for the criteria of audiovisual media in industrial education is set.

According to Pett, the next set of criteria involves the choice of media. Pett said, "All media have certain characteristics that make them useful for certain objectives."¹³ From the training objectives and desired results, it is necessary to determine what form of media will accomplish the desired results. Care must be exercised in choosing the form of media to be used, since each form has advantages and disadvantages. Each will do a particular job better than one of the others.¹⁴ Gerard Ennis wrote an article entitled, "AV Decision Model," where he provided a list of criteria for choosing the proper equipment for audiovisual oriented training programs. In the article he states that the criteria for choosing the proper equipment

¹¹Ibid. ¹²Pett, loc. cit. ¹³Ibid.

¹⁴Martin Broadwell, "The use and Misuse of AV," Training in Business and Industry, Vol. 7, No. 10 (October, 1970), p.40.

are: (1) cost/effectiveness of the medium to be used; (2) portability of the equipment; (3) ease of editing; (4) disruption of operation; (5) ease of operation; (6) ease of revision; (7) crew size; (8) need for service; (9) synchronizing voice and visual; (10) motion; (11) color; (12) operator competence; and (13) adaptability.¹⁵

Careful examination of the criteria that Ennis set for the choice of a medium for industrial training, might reveal that this criteria is parallel to the criteria for choosing audiovisual equipment for general education.

When the choice of media has been effected and the required media produced, it is presented in conjunction with the complete training program.¹⁶

After the program has been presented, it should be evaluated to determine the effects of audiovisual utilization and how the use of media benefited the training program.¹⁷

Now that the basic attitudes and criteria for audiovisual media have been discussed, some of the comments that employers around the country have made relative to the use of specific audiovisual mediums can be examined. Actually, most of the articles indicated that there were two mediums of primary concern among employers; 16mm film

¹⁵Gerard J. Ennis, "AV Decision Model," Training in Business and Industry, Vol. 9, No. 5 (May, 1972), p.43.

¹⁶Ibid. ¹⁷Ibid.

and videotape or closed-circuit television. For this reason, only film and video systems will be discussed.

As stated previously, media is used in training programs to stimulate participation. According to a comment by Jules Eittington:

The success of a training program depends on maximum involvement of the trainee group.

Film as a training medium has the unique capacity of involving the total group in the learning process. Obviously, everyone who sees the film is "involved." However, just being involved does not insure maximum learning.

In general, it is from the challenge to one's views and the opportunity to learn from the insight of others that one learns maximally from film.¹⁸

Eittington had the insight to realize that just showing a film for the sake of showing it is not the true value of film. He realized that the showing of the film is only part of the learning experience involved when using a film. The important part of viewing a film may not be the viewing itself, but rather a combination of pre-film experience and post-film discussion. First, provide relevant information so that the trainee knows exactly what is expected of him. Then, provide a relevant discussion, answering and stimulating the trainee. Group discussions, questions, debates all directly involve the trainee.¹⁹

Patrick Suessmuth carried Eittington's feelings on

¹⁸Jules Eittington, "Film + Group = More Learning," Training in Business and Industry, Vol. 9, No. 1 (January, 1972), p.42.

¹⁹Ibid.

film further in that he supplied a list of six stages one must go through in order to end up with a productive training session using film. In his article, "Getting Participation in Films," he listed his criteria:

(1) Have an objective; (2) find a suitable film that fits your objectives; (3) screen the film so you are familiar with it; (4) decide how you're going to use the film and plan your session around it; (5) hold the actual session; and (6) adjust your plan for the next use of the film based on feedback.²⁰

The one flaw with Suessmuth's criteria is the apparent lack of involvement of the learner. He appears preoccupied with the presentation. If we take Suessmuth's fifth point, "hold the session," and expand on this point using an article written by David Curl, the learner can be involved. Curl said that the way to increase the amount of information learned and retained by film viewers is to:

Prepare the audience for the film by introducing it.
 Direct the viewer's attention to specific points of the film.
 Point out the importance to the viewer personally of learning from the film.
 Discuss questions and problems related to film content.²¹

Thus, by involving the learner as well as the instructor a more favorable environment for education is created. By involving the learner, he learns more because

²⁰Patrick Suessmuth, "Getting Participation in Films," Training in Business and Industry, Vol. 9, No. 9 (September, 1972), p.29.

²¹David H. Curl, "AV Training," Training in Business and Industry, Vol. 7, No. 9 (September, 1970), p.18.

he wants to, not because he has to.

Several years ago, another form of audiovisual media was developed which can be likened to film as far as the criteria that have been discussed above are concerned. Television, the electronic counterpart of film, has many basic characteristics which could be used to relate it to film. Thus, Eittington's statement that film is unique might not be a viable statement. In fact, the literature available and the results of this study tend to indicate that film and television, or more recently videotape, are on the same level as far as the use of these media in industrial education are concerned.

How does industry make use of videotape and what is their evaluation of the medium?

According to Robert Maloney, Audiovisual Manager for Southern New England Telephone:

The overall payoff for using closed-circuit television is uniformity of training. In addition, there are specific advantages accruing to each training program. For example, prior to closed-circuit television drivers were shown how to operate the "Sky Worker" truck by taking trucks out of the work schedule and giving lessons with them. The use of closed-circuit television has, in this instance, cut training time in half and improved the field safety record of truck crews by 100 percent.²²

This is a specific example of how an employer has applied the benefits of television to his particular training needs. The employer's evaluation shows that the

²²"Video Training at 24¢ per Person," Training in Business and Industry, Vol. 9, No. 1 (January, 1972), p.29.

use of television saved time and money, and provided more efficient training as shown by the safety records of the truck crews.

In another article, Roger Peterson reported on some of the benefits that Southern New England Telephone had realized since using videotape. The benefits realized were:

(1) Training time can be cut in half; (2) uniformity of training is guaranteed; (3) using videotape recorders, small components can be enlarged so that all trainees can see; (4) trainees interest is on the subject matter, not on the instructor; and (5) retention is increased as much as 50 percent.²³

This information does not necessarily set the precedence for industry in general, but there are other employers whose evaluation of videotape appeared to support the information supplied by Southern New England Telephone.

Videotape was used by Eastern Airlines to instruct mechanics on the maintenance procedures of its airplanes. Training officials with Eastern Airlines reported that familiarization training on aircraft was definitely less expensive than when conventional training procedures were used. By using videotapes, officials estimated that training took 50 percent less instruction time and cut cost by 40 percent.²⁴

²³Roger Peterson, "VTR Teaches Without Strain," Training in Business and Industry, Vol. 8, No. 1 (January, 1971), p.38.

²⁴"\$500,000 in Videotape Unit Cuts Training Costs 40%," Training in Business and Industry, Vol. 4, No. 9 (September, 1967), p.18.

Officials at Munsingwear, Incorporated used videotape and considered it a valuable two-way communication tool. Videotape was used to prepare new employee orientation and sales training programs for marketing personnel. The two-way communication involved top-level people who could learn what was going on in the plant and communicate back to the employees via the videotape system.²⁵

According to Dennis Casey, "Television is certainly a valuable new tool, one which many think will soon become as indispensable to large corporations as the telephone and computer are now."²⁶

Even the military reflected the value of television. In 1967, the United States Army established an entire individual training television network. In a speech that Robert S. McNamara gave concerning the television network, he said, "The great merit of closed-circuit television is its flexibility."²⁷

So it would seem that television is respected by employers as a valuable educative tool. The indications would seem to imply that as videotape systems become more

²⁵Gregg Perry, "If at First You Don't Succeed, Look, Look Again," Training in Business and Industry, Vol. 5, No. 10 (October, 1968), p.41.

²⁶Dennis Casey, "How to Make a Television Department Succeed in Business Without Really Crying," Training in Business and Industry, Vol. 8, No. 7 (July, 1971), p.36.

²⁷Robert S. McNamara, "World's Largest School," Training in Business and Industry, Vol. 4, No. 8 (August, 1967), p.20.

readily accessible for people at reasonable expense, systems will become available to almost any type and size of business.

The fact that other forms of media were not discussed here does not reflect their value. It merely indicates that industry seemed to be preoccupied with those forms of media that to them represent a large portion of their total training program. The more conventional forms of media can very easily be taken for granted.

Chapter 3

THE PROCEDURE, TREATMENT OF DATA, AND HYPOTHESIS

This chapter contains a detailed discussion of the procedures used in obtaining the sample, the individual interviews, and the development of the questionnaire. The most efficient method of acquiring the required information seemed to be to conduct a personal interview with the person responsible for the training program of the respective employers. A questionnaire was developed which contained specific questions designed to procure information concerning the employers use of audiovisual media in their training programs.

THE PROCEDURE

The first task was to secure a sample of the employers in the La Crosse, Wisconsin area. The researcher obtained a list of manufacturers in the city of La Crosse and surrounding area from the La Crosse City Chamber of Commerce. To this list of manufacturers, a number of other La Crosse employers were added in order to provide a more varied sample. The addition of these other employers expanded the sample to include employers in the areas of service and sales as well as manufacturing.

In February and March of 1973, the employers from the above list were contacted by telephone to ascertain if a training program using audiovisual media and equipment existed in the company.¹ If the response to the inquiry was positive, a personal interview was requested so that a questionnaire could be administered. A minimum interview of thirty minutes was requested. In most cases, the actual interview lasted at least one hour. In each case, the employer was informed that the purpose of the interview was to collect pertinent information concerning the use of audiovisual media in the company's training program, and that the information compiled would provide material needed for a seminar paper in partial fulfillment of the requirements leading to a master's degree. The employers were also advised that the information supplied by them would enable the researcher to make observations concerning the use of audiovisual media in the training programs of La Crosse area employers. They were told that their information would be used to determine if the use of media in their training programs had been beneficial to effective training of employees, also to determine their preferences as to the forms of media used.

From the eighty-nine employers that were contacted by telephone, seventeen indicated that they used some form of audiovisual media in their training procedures. However,

¹List of employers contacted in Appendix A.

the researcher decided that certain employers did not use a sufficient amount of audiovisual media or did not use media often enough to warrant a personal interview. In such cases, the researcher obtained what information could be acquired, about the use of media, during a short telephone conversation with the person responsible for the training of personnel in that particular business. For those employers that appeared to utilize a sufficient amount of media, an interview was requested. Out of thirteen interviews requested, thirteen were granted. The employers that were interviewed are listed in Table 1.

Personal interviews were requested for a number of reasons: (1) to insure that the researcher had contacted the right person; (2) the researcher felt that the personal contact approach would enable more exact information to be gleaned from the interview; (3) if there were some uncertainty about a question or an answer, it would be easier to correct the misunderstanding; (4) the researcher could more readily adapt the questions to the employer's specific procedures; (5) the employer could talk more freely and candidly about his training situation; and (6) the personal interview allowed greater flexibility than other forms of collecting information.

A small portable cassette tape recorder was used on all but three interviews. The decision to use the recorder was based on the researcher's observation that the use of a recorder had no adverse affect on the person that was

Table 1
Employers Interviewed

Name of Employer	La Crosse Address
1. Continental Can Co.	1501 St. James St.
2. Dahl Motors La Crosse, Inc.	3rd & Division Sts.
3. Dairyland Power Co.	2615 East Ave. South
4. Dolly Madison Dairies ^a	Ramsey Court
5. First National Bank	305 5th Ave South
6. Gateway Transportation	455 Park Plaza Drive
7. Hoerner-Waldorf Container Div. ^a	1635 Caledonia St.
8. Johnson Service Co. ^a	1101 So. 8th St.
9. La Crosse Cooler Co.	2809 Losey Blvd.
10. Low Motor Co.	6th & Cass Sts.
11. Lutheran Hospital	1910 South Ave.
12. Northern States Power Co.	122 5th Ave. North
13. Ray Hutson Chevrolet, Inc.	100 Mormon Coulee Rd.
14. Topper Drive-in ^b	471 2nd Ave. No., Ona.
15. Trane Co.	Pammel Creek Rd.
16. St. Francis Hospital	709 So. 10th St.
17. UOP Norplex Corp. ^a	1309 Norplex Drive

^aInterviewed by telephone.

^bLocated in Onalaska, Wisconsin.

interviewed. On the other hand, when the recorder was not used and the researcher was forced to take notes, there was a noticeable drop in the amount of information that was obtained. Because of the complexity and length of some of the responses to the questions, the taking of notes of some type was imperative. The use of the tape recorder assured greater accuracy of the information received during the interviews and was used whenever possible. The results of this method were quite acceptable.

The interviews were conducted and the conversations from the tapes were then transcribed and edited. Extraneous material which was repetitious or did not apply was deleted. Some of the comments were also paraphrased to clarify the meaning of an answer or to shorten the response to a question. The researcher took full responsibility for whatever paraphrasing, editing, and deleting was performed.

The questions asked in the survey were designed to facilitate an overall understanding of the basic training procedures adopted by the particular employer. This knowledge of the basic principles of an employer's training program was necessary to the understanding of the primary objective of this study concerning the use and effectiveness of utilizing audiovisual media in the training process.

There are basically two parts to the questionnaire. The first part pertains to general information concerning the employer's training program. The second part requests specific information concerning the employer's use of

audiovisual hardware and software. The questionnaire also asks for personal observations regarding the effects of media in training. A representation of the questionnaire can be found in Appendix B.

The questionnaire was designed to be as comprehensive as possible, although not all-inclusive. There are certain limitations concerning the questions, these are discussed in Chapter 1 in the section on the limitations of the problem.

TREATMENT OF THE DATA

Some of the information gleaned from the interviews with La Crosse employers formed the basis for certain statistical considerations. The statistical considerations were as follows: (1) the percentage of La Crosse employers using audiovisual media for training; (2) the percentage of employers using media by breakdown of the number of people employed; (3) the percentage of the companies interviewed having a separate audiovisual department. Each of these considerations were represented by the development of tables depicting the necessary information as determined by the content of the information obtained in the interviews.

The rest of the information collected during the interviews was treated both in discussion form and in an assemblage of appropriate tables.

A list of audiovisual equipment used by La Crosse employers was compiled. The number of companies using each

piece of equipment was noted. Then, each company interviewed was treated separately, listing the equipment and quantity of each that was used in training employees.

From the data compiled, it was determined which equipment or medium was preferred by the various employers. Each individual employer was also listed in a table and the medium that each employer preferred was listed.

The remaining information provided material for discussions concerning La Crosse employers use of media in training programs. The following provided the topics of discussion; (1) how the media was used, (2) why it was used, (3) whether using it reduced the cost of training, (4) where the software was produced, (5) other forms of media considered, (6) whether the use of media was considered beneficial to training, and (7) what future plans were concerning the use of media.

The information provided by the questionnaire allowed the construction of various applicable tables and also permitted discussion of relevant criteria pertaining to the usage of audiovisual media in a training program.

HYPOTHESIS

In conducting a study of this type, there are a number of factors that could have a direct bearing on the results. By taking these factors into consideration, certain generalizations could be made about the training programs of the employers that were interviewed.

The larger employers, those employing over 1000 people, would probably use audiovisual media more extensively than any other category of employers. This category would also be the only area in which an employer might have a separate audiovisual department. An estimate of 100 percent of this group would utilize some form of media in their respective training programs. In the next group, employing 501 to 1000, 70 percent could be expected to utilize media in some form. In the group employing 251 to 500, 30 percent could be expected to use media. In the 101 to 250 group, 10 percent might use media. In the 51 to 100 group, 5 percent would probably use media. In the 25 to 50 group, 5 percent might use media. Only 1 percent of the employers with less than 25 employees would use media.

Concerning the use of media itself, the filmstrip projector would be the most often used and preferred medium. This would be primarily because of the cost factors and the availability of existing programs.

Closed-circuit television or videotape systems would also be a primary preference medium, although this medium will probably be limited to the larger employers or those that are part of a larger corporation. Video systems are costly and the employer would probably be required to justify the cost of such a system. Therefore, the use of video systems is not anticipated in the smaller employers.

The other forms of media will be used in varying degrees. The least used would probably be the opaque

projector.

An overall estimate of the employers using media for training purposes would be about 15 percent of the total number of employers contacted.

Chapter 4

INTRODUCTION

Chapter 4 contains the information gathered during the interviews and conversations conducted with seventeen La Crosse employers. Each individual interview is included in detail in Appendix C. As the employers were interviewed, the responses to the questionnaire were carefully examined and applicable information was tabulated for consideration in statistical form. Other information formed the basis for discussion concerning the actual use of audiovisual media in training programs of La Crosse employers.

In general, the tables that were constructed and the questions that were discussed provided an insight into the various employers attitudes toward employee education and the use of audiovisual media.

RESULTS OF THE STUDY

Classification of Employers

For the sake of classification, the employers contacted were divided into seven employee range categories. These were: Group A, less than 25 employees; Group B, 25 to 50 employees; Group C, 51 to 100 employees; Group D, 101 to 250 employees; Group E, 251 to 500 employees; Group F,

501 to 1000 employees; and Group G, over 1000 employees. The researcher made no attempt to include the same number of employers in each group. This was the result of the limited number of employers in the La Crosse area. The survey revealed that from the eighty-nine employers contacted, there were forty-eight employers in Group A, nineteen in Group B, nine in Group C, three in Group D, three in Group E, three in Group F, and four in Group G. Refer to Table 2 on page 34.

After the employers had been contacted, it was determined that the following number of employers in each division used audiovisual media in their training programs: two in Group A; three in Group B; two in Group C; two in Group D; one in Group E; one in Group F; and four in Group G. Table 3, page 35, represents this information as well as the percentage that the number of employers interviewed represents within the group and the total sample. A total of seventeen employers of the eighty-nine contacted were determined to utilize audiovisual media for the training programs within the respective businesses. This represented 19.12 percent of the total sample.

Training Methods

In tallying the responses to the first question of the survey, it was determined that the majority of the employers interviewed preferred the on-the-job method of training. Table 4, page 36, indicates the number of

Table 2
Classification of Employers

Number of Employees	Number of Employers Contacted	Percentage of Sample
A. Less than 25	48	54.00%
B. 25 to 50	19	21.40%
C. 51 to 100	9	10.01%
D. 101 to 250	3	03.37%
E. 251 to 500	3	03.37%
F. 501 to 1000	3	03.37%
G. Over 1000	<u>4</u>	<u>04.48%</u>
Totals	89	100.00%

Table 3
Number of Employers Interviewed

Number of Employees	Number of Employers Interviewed	Percentage of Sample	Percentage of Group
A. Less than 25	3	03.38%	06.25%
B. 25 to 50	3	03.38%	15.80%
C. 51 to 100	3	03.38%	33.33%
D. 101 to 250	2	02.24%	66.66%
E. 251 to 500	1	01.12%	33.33%
F. 501 to 1000	1	01.12%	33.33%
G. Over 1000	<u>4</u>	<u>04.50%</u>	<u>100.00%</u>
Totals	17	19.12%	

Table 4
Preference of Training Methods

Types of Training	Number of Employers Using Method	Number of Employees Preferring Method
1. On-the-job Training	17	10
2. Classroom Training	16	5
3. Individual Instruction	10	1
4. Self-instruction	8	0
5. Programmed Instruction	8	2
6. Other ^a	1	1

^aLutheran Hospital preferred demonstration method.

employers that used each type of training method and the number that preferred to use each type of training.

Most of the employers interviewed implied that they preferred the on-the-job method of training, but they did not say why they preferred this method. Perhaps Hugh Burke of the Dairyland Power Company summed up the feelings toward on-the-job training when he said, ". . . on-the-job training is indispensable, you can't do away with it."

Some of the other employers had some interesting comments about the other types of training procedures. Mel Laitinen, Manager Sales Engineer Program for the Trane Company, said:

. . . I attempt . . . to evolve an individualized program. I feel that my job as an instructor is not to teach techniques That's why I look to any visual aids because the sooner I can free myself to be able to start working on developing the students' potential the better.

Harold Oman, Ray Hutson Chevrolet, Incorporated, mentioned that programmed training does afford more flexibility in the training situation.

Barbara McIlvaine, St. Francis Hospital, preferred programmed instruction because, ". . . with the adult learner there seems to be a motivation problem." She went on to say, "With programmed instruction the goals are more defined, you know what you are going after."

Several employers mentioned that they liked to use an informal classroom or discussion group approach to training. This usually allows the group to benefit by the

experiences of the others present.¹

Number of Personnel Trained

The responses to this part of the survey varied considerably. Table 5 summarizes the results of this question. The table shows that the number of employees trained by La Crosse employers varied from only sixteen employees to over one-thousand. The table also shows that a number of employers were unable to supply the requested information.

The employers were also asked whether they employed their own instructors. Of the seventeen employers interviewed, only five indicated that they employed their own instructors. The other employers said that training was done by department heads or the personnel manager.

Employer Audiovisual Departments

Of the seventeen employers interviewed, only three or 17.6 percent indicated that they had an audiovisual department. All of these were in the group that employed over one-thousand persons. Two of these employers were hospitals and one was a manufacturer.

Audiovisual Budgets

Only six employers had any information available as to the amount of money that was spent on the purchase of audiovisual equipment and media. The amounts that the

¹Statement made by Ted Saugsted, La Crosse Cooler.

Table 5
Number of Personnel Trained
by Employers Interviewed

Name of Employer	Number of Personnel Trained Annually
1. Continental Can Co.	48
2. Dahl Motors La Crosse, Inc.	44
3. Dairyland Power Co.	200
4. Dolly Madison Dairies	No information
5. First National Bank	20
6. Gateway Transportation ^a	1000
7. Hoerner-Waldorf Container Div.	No information
8. Johnson Service Co.	No information
9. La Crosse Cooler Co. ^a	200
10. Low Motor Co.	46
11. Lutheran Hospital	No information
12. Northern States Power Co.	25
13. Ray Hutson Chevrolet, Inc.	16
14. Topper Drive-in	20
15. Trane Co., Sales Div.	150
Trane Co., Production Div.	250
16. St. Francis Hospital	600
17. UOP Norplex Corp.	No information

^aNumber of employees trained in entire operation not just locally.

employers spent on audiovisual media varied from a low of \$200.00 per year to a high of \$2000.00 per year. Table 6, page 41, shows the amounts that were supplied by the various employers. Because of the lack of information in this area, it would have been difficult to assume any accurate conclusions concerning money allotted specifically for the purchase of audiovisual materials.

Audiovisual Equipment Used by La Crosse Employers

A complete breakdown of the audiovisual equipment used for training purposes by each of the employers interviewed is provided by Table 7. The information contained in Table 7 should not be used to conclude the popularity of the various forms of audiovisual equipment; this is treated in a separate section.

From the information furnished by Table 7, it can be noted that twenty-three 35mm slide projectors were owned by ten companies. This represented the piece of equipment that was most frequently owned by the employers. However, it is necessary to point out that videotape systems were also owned by ten companies, but only thirteen systems were owned by ten companies.

The other forms of audiovisual media were owned by the employers in varying degrees.

Most Popular Medium

This section of the survey consisted of two parts. The employers were asked to indicate which medium they

Table 6
Employer Audiovisual Budgets
and Departments

Name of Employer	Budget ^a	AV Dept.
1. Continental Can Co.	\$500.00	no
2. Dahl Motors La Crosse, Inc.	\$2000.00	no
3. Dairyland Power Co.	\$2000.00	no
4. Dolly Madison Dairies	NA ^b	no
5. First National Bank	\$300.00	no
6. Gateway Transportation	NA	no
7. Hoerner-Waldorf Container Div.	NA	no
8. Johnson Service Co.	NA	no
9. La Crosse Cooler Co.	NA	no
10. Low Motor Co.	\$300.00	no
11. Lutheran Hospital	NA	yes
12. Northern States Power Co.	NA	no
13. Ray Hutson Chevrolet, Inc.	\$200.00	no
14. Topper Drive-in	NA	no
15. Trane Co., Sales Div.	NA	yes
Trane Co., Production Div.	NA	yes
16. St. Francis Hospital	NA	yes
17. UOP Norplex Corp.	NA	no

^aAmounts indicate annual budgets.

^bNA, information about budgets not available.

Table 7

Audiovisual Equipment Used by Employers

Employer	Equipment 16mm projector	35mm projector	8mm projector	Filmstrip projector	Overhead projector	Opaque projector	Filmsound systems	Videotape systems	Tape recorder	Cassette recorder	Record player	Hook&Loop board	Tutorial systems
Continental Can Co.	1						1	1 ^a					
Dahl Motors, Inc.							1	1 ^a					
Dairyland Power Co.	3 ^b	6 ^b			2			1	1				
Dolly Madison Dairies	1 ^a	1											
First National Bank					1		1 ^a						
Gateway Transportation	3 ^a	2			1								
Hoerner-Waldorf Container Div.	1 ^a												
Johnson Service Co.								4 ^c					

Table 7 (continued)

Employer	Equipment	16mm projector	35mm projector	8mm projector	Filmstrip projector	Overhead projector	Opaque projector	Filmsound systems	Videotape systems	Tape recorder	Cassette recorder	Record player	Hook&Loop board	Tutorial systems
La Crosse Cooler Co.			1		1		1 ^a		1					
Low Motor Co.								1	1 ^a					
Lutheran Hospital		3	5		4 ^a	1	1	1	1	4	20			
Northern States Power Co.		1	1 ^a			1				1				
Ray Hutson Chevrolet, Inc.				1				1 ^a						
St. Francis Hospital		2 ^a	2	1	2	2								1
The Topper Drive-in			1 ^b								1 ^b			
The Trane Co., Sales Engineer Div.			2			2			1 ^a					

Table 7 (concluded)

Employer	Equipment	16mm projector	35mm projector	8mm projector	Filmstrip projector	Overhead projector	Opaque projector	Filmsound systems	Videotape systems	Tape recorder	Cassette recorder	Record player	Hook&Loop board	Tutorial systems
The Trane Co., Production Div.		1 ^a	2			2			1				1	
UOP Norplex Corp.									1 ^a					

^aMedium preferred by employer.

^bMediums preferred by employer.

^cEquipment shared by other regional offices.

preferred to use or used most frequently. Then the employers were asked to specify why they preferred that particular medium. Table 8 shows the number of employers that preferred each of the mediums that were used by the various companies. By referring to Table 7, pages 42 through 44, the audiovisual medium that is preferred by each company can be noted.

As indicated by Table 8, the 16mm projector and videotape systems share the position of being the preferred forms of media.

The responses to the section pertaining to the reasons for using a particular medium varied from one medium to another. For the most part, the reasons for using one particular medium were much the same.

Those employers using videotape frequently responded by saying that this medium offered them greater flexibility and versatility in the programs presented.

The reason for using films and slides were generally because of the availability of the material. Employers also indicated that this form of media was more readily adapted to particular training situations.

The one employer that preferred the opaque projector specified that this was due to the fact that they could use existing materials. The underlying factor here was the cost of reproducing their materials in some other media form.

Cost was a contributing factor in the choice of media for a number of employers. Many employers stated that free films, slides, and filmstrips were available to them

Table 8
Preference of Audiovisual Equipment

Type of Equipment	Number of Employers that Prefer Equipment ^a
1. 16mm film projector	6
2. 35mm slide projector	2
3. 8mm film projector	0
4. Filmstrip projector	2
5. Overhead projector	0
6. Opaque projector	1
7. Filmsound systems	3
8. Videotape systems	6
9. Tape recorder	0
10. Cassette recorder	0
11. Record player	0
12. Hook & Loop board	0
13. Audio-tutorial system	0

^aSome employers preferred more than one type of equipment.

and that this was the reason they preferred those mediums.

For some companies it was purely a matter of there being only one or two forms of audiovisual media available to them. In these situations there was no choice of preference.

There were strong indications that videotape systems were gaining popularity more readily than other forms of media. Many companies were either in the process of converting to videotape or had done so recently. Other employers mentioned that they were considering the use of videotape. At present, cost seemed to be the inhibiting factor. This will be treated in a later section.

Use of Audiovisual Media

Because of the amount of information involved in this section, each individual employer will be discussed separately.

Continental Can Company. Russel Hurst, Manager of the Continental Can Company, had this to say concerning the use of media:

. . . we do not have a scheduled training program. Usually what happens is that we receive a training tape or slide program from the main office. We then have to determine the validity of the program and whether it will be useful to us. After this, we will arrange for our men to see the program, usually this amounts to a sort of seminar approach where we can discuss their reactions.

As Hurst indicated, the use of media has no definite structure. Media is used when it is available

and where it is applicable. This is accomplished in a seminar approach to training which allows discussion of reactions.

Dahl Motors La Crosse, Incorporated. Dahl Motors had recently converted to the use of a videotape system and they were in the beginning stages of the realization of the potentials that the video cassette system offered. Gene Leonard made this comment, "One use of the video cassette that we have found very helpful is when a management meeting at the home office takes place, we are able to obtain videotapes of the proceedings and this allows our whole organization to take part in the proceedings."

Mr. Leonard indicated that there were tapes available for a variety of uses. There were programs for training of mechanics, salesmen, managers, and even the customers.

The video cassette system is portable and can be moved from one area to another. Leonard pointed out that the system can be used in a variety of training situations. The system can be used in a group situation and is also capable of programmed instruction, self-instruction, and individual instruction.

Dairyland Power Company. Hugh Burke of the Dairyland Power Company said that he does not use media as an end in itself, but rather in a situation where discussion and elaboration of concepts is possible both before and after media is used.

Dolly Madison Dairies. Mr. Hammes of the Dolly Madison Dairies was one of the employers who was interviewed by telephone. Mr. Hammes specified that media was used by the company to facilitate instruction in safety procedures. The programs came in the form of 16mm films which were shown to the employees at monthly safety meetings.

First National Bank. Milo Mach of the First National Bank did not have much to say about the bank's use of media. He did say that media was used when a presentation was given and there was a filmstrip available depicting those principles being discussed.

Gateway Transportation. According to Tom Clark, Gateway Transportation had produced a film for orientation of new employees and that this was the company's primary use of media at this time.

Clark also stated that Gateway did have a complete driver training course using films, slides, and tape recordings. He said that this course was not being used at this time, but was being considered for possible use at a later date.

No other information concerning the use of the remaining forms of media available to Gateway could be obtained .

Hoerner-Waldorf Container Division. In a telephone conversation with Jim Schjolberg, he stated that the use

of media was limited to the training of employees in methods of safety and accident prevention. This was done in a classroom environment whenever the 16mm films were made available.

Johnson Service Company. E. K. Edwards was interviewed by telephone. During the conversation he stated, "We use videotape recorders to train our employees on products, procedures, sales, and safety procedures."

La Crosse Cooler Company. La Crosse Cooler Company was the only company to use the opaque projector; they also preferred to use it. Concerning the use of the opaque projector, Ted Saugsted said, "The opaque projector lets us use charts that we have prepared on 8 $\frac{1}{2}$ by11 sheets of paper." Saugsted continued by saying, "It lets us put photographs on the screen and illustrate obsolete equipment."

Ted indicated that the slide projector, although not in extensive use as yet, would be used in much the same manner as the opaque projector. Simplified versions of electrical circuitry will be photographed so that slides can be switched quickly to show energized and deenergized positions. This can be accomplished quickly and in color which is difficult to do using a blackboard or opaque projector.

Low Motor Company. The personnel at Low Motor Company used the same type of videotape system that Dahl

Motors used. Jack Low made these comments concerning the use of videotape:

When a new salesman is hired, he spends the first week watching presentations prepared by the main office for the video cassette recorder. After this, there is a period of on-the-job training with frequent periods of review using the video cassette system. In fact, all of our salesmen use the programmed material provided as a refresher.

There are also programs prepared for periodic sales meetings. We view the tapes during the meetings and then the men can also view them individually at their convenience

Our mechanics can also make use of the video system. There are tapes prepared for all of the lines of cars that we handle. The tapes provide visual instruction to our mechanics on particular maintenance procedures.

As can be seen by the above comments, the videotape system that Low Motors used provided visual training in a variety of areas. This is a representation of the versatility of a video system for business and industrial training.

Lutheran Hospital. In discussing the use of media with Joan Kjomy, Supervisor of In-Service Training for Lutheran Hospital, it was noted that the use of media followed along the same lines as normal educational processes. Media was used in combination with lecture material to facilitate the understanding of concepts presented orally.

Joan also revealed that media was used extensively in the orientation program for new employees.

By discussing some problems involved in training with media, it was noted that the Lutheran Hospital training

staff lacked certain knowledge concerning the effective utilization of audiovisual media in a training situation.

Joan had this to say:

Audiovisual media has become too sophisticated. Most of us in our operation are unable to properly use and operate the equipment. As a result, the overall function of our unit is not what it could be

This could be an indication of underlying problems throughout industry; the lack of knowledge concerning the effective use of audiovisual media.

Northern States Power Company. The staff at Northern States Power often used the overhead projector to show graphs of related material to various employees. However, this was not the primary use of audiovisual media by the company. They used slide presentations that they prepared to depict samples of some of the methods they used in their line of work. Ray Mortt said, ". . . we will show these slides to the crews and discuss each step as to what is involved, why we had to go this way, and why we used this particular piece of equipment." As Ray indicated, by recording the procedures on slides they were able to maintain a permanent record of the steps they had taken in solving a particular problem. By using the slide programs as a training device, all of Northern States Power Company employees benefited from it.

Another use of media was found in training employees in safety procedures. Northern States Power obtains safety films through the National Safety Council , these are shown

to the employees at special meetings held twice a month.

Ray Hutson Chevrolet, Incorporated. At Ray Hutson Chevrolet, a filmsound system was being used to present various programs to the employees in the shop area. New filmstrips were presented at shop meetings. The filmstrips were viewed and any problems or misunderstandings could be discussed. The programs were also available to the men if they needed review on a particular sequence.

Harold Oman mentioned that the Chevrolet Company had a number of vans equipped with audiovisual programs which were assigned to various districts. The vans were set up so that they rotate between a number of garages in the district. When the van made a stop, the men were allowed to use whatever facilities the van made available. The vans were equipped with 8mm film projectors and filmsound systems. The programs varied, but usually concentrated on problem areas.

Topper Drive-in. Roy Grade, owner of two local drive-ins, was interviewed because the researcher learned of his unique approach to training the people he hired to help out at his drive-ins.

In a talk with Roy, it was learned that he had produced a slide presentation depicting various aspects of the drive-in business. To this presentation he added a sound track explaining the procedures.

He used his presentation as an orientation.

program for his new employees. At the beginning of each new season, the new employees are all shown the program to better acquaint them with the business they will be working in.

Trane Company. Although the Trane Company was treated as one entity for consideration in the statistical results of the study, in this section the Trane Company's training programs will be treated separately because of their disassociation.

In talking with Mel Laitinen, Manager Sales Engineer Training Program, it was learned that this area of training was undergoing a transition from using more conventional forms of audiovisual media to the utilization of videotape. Mel specified that they would be doing an extensive amount of videotaping. All of their present training program material would be videotaped, primarily for use in their foreign offices. He explained that these tapes would be edited and the sound tracks translated into the language of the country that the tapes were sent to. By doing this, the information that was contained on the tapes could be more readily transmitted to the persons in the foreign offices.

Mel also said, ". . . we use media to handle all of the fundamentals in our lectures." Media was used by the Trane Company to stimulate sales presentations and to present areas that should be of particular interest to the employees.

John Murphy, Supervisor of Production Training for the Trane Company, stated that his department was in the process of restructuring the training procedures for production. They were changing from a strictly on-the-job training program to a more classroom oriented program. Most of Murphy's comments were in the future tense indicating what his plans were regarding the future use of media.

Murphy said that charts and overhead transparencies would be prepared which would provide outlines to be used in the training program. He went on to say:

We will also use media to emphasize or recall a particular point as we go along. We will show them the outline and the objectives and as we go along we will examine each point and break it down in detail.

The material for the hook-and-loop board will be made up in advance by the art department. The placards list key points. If I'm looking for techniques of leadership, I'll outline the key points and these will be on the placards.

As Murphy indicated, his use of media is in line with conventional usage of audiovisual media.

St. Francis Hospital. At St. Francis Hospital, Barbara McIlvaine said, "We use programmed instruction as an end in itself in that it is a complete educational experience on its own." She also said that the other audiovisual equipment that they had was used in classroom situations, primarily to reinforce concepts covered by the instructor.

UOP Norplex Corporation. Avis Burton was interviewed

by telephone because of existing labor strike conditions at the La Crosse plant at the time of this study. These conditions made it impossible to conduct a personal interview. During the telephone conversation, Avis stated that Norplex was presently using closed-circuit television to train supervisors and foremen in management procedures. He said that the tapes were prepared by the corporate headquarters and distributed from there.

Reasons for Using Audiovisual Media

The responses made to this area of the survey seemed to indicate that the majority of the employers using audiovisual media did so because media made it possible to transmit information faster and more effectively. The employers seemed to agree that visual reinforcement to the spoken word is an effective learning process. As Milo Mach, First National Bank, said, "People will remember what they see longer than what they hear." Mach's statement recapitulates the feelings of the employers in general on the visual reinforcement that audiovisual media affords.

Another reason for using media that was pointed out by several employers, is that the use of media tends to unify a training presentation and creates a certain consistency in the material that is presented. The elimination of inconsistency is an important factor in business where attention to specific details is important. The elimination of important points or procedures in a training

process could have profound effects on the performance of employees.

Other reasons for using media that were mentioned were that using media made the training program appear more professional, freed time from repetitive material, and that the showing of certain safety films was a mandatory requirement of some insurance companies.

One comment made by Joan Kjomy, Lutheran Hospital, deserves special attention. Joan said, ". . . the kids we're getting from the schools and universities have been brought up expecting the use of audiovisual media." She went on to say that Lutheran Hospital did not use media specifically because of this reason. She felt that this type of orientation to audiovisual media may be more harmful than helpful because of the students' inability to respond to a lecture situation. This represents a valid insight concerning a possible problem with audiovisual media and may justify additional research in this area.

Where the Media is Produced

Of the seventeen employers interviewed, only two indicated that all of their audiovisual media was produced within the company. Both the sales training and production training areas of the Trane Company produced all of the media that they used in their respective training programs. The other employer that produced his own media was Roy Grade, owner of the two drive-in restaurants.

Three employers stated that some of the media that they used was produced by them and that the rest of the media they used came from sources outside their companies.

The remaining twelve employers received all of the media that they used from sources other than their own respective companies.

Reduce Cost of Training

The employers were queried as to whether the use of audiovisual media had reduced the cost of training their employees. For the most part the responses were negative. The reason for this was pointed out as being the cost of buying both equipment and software.

However, not all of the responses were negative. There were three employers who felt that by using audiovisual media they had reduced the cost of training.

Mel Laitinen, Trane Company, made this comment about the cost of training:

As far as our use of videotape for the international side, yes. It's going to be very much cost saving in that our foreign offices will not have to send their men here to be trained.

I think that in the next few years we may even be able to shorten our training program, which of course would be a cost reducing factor.

John Murphy also thought that media helped to reduce the cost of training in his area at the Trane Company. He said this about reducing the cost:

Yes, I think it can and has reduced costs. I say can because at this time we are in initial stages of a well developed training program
. . . our past experiences with audiovisual media

has given us every indication that it had reduced the actual costs of training.

Another employer that thought media had reduced costs of training was Milo Mach of the First National Bank. Milo said, "It has helped us train personnel faster, so I guess we'd have to say that it has reduced our cost of training."

The only other employer to state that media had reduced training costs was Northern States Power. Ray Mortt, Operating Area Supervisor, had the following to say:

The overhead projector is one area where cost has been greatly reduced in providing charts and graphs. An overhead visual can be produced for a few cents, where if the same had to be prepared by a draftsman it would cost considerably more.

Other Forms of Media

Nine of the seventeen employers interviewed stated that they had not considered any other forms of media for their training programs. Of the remaining eight employers, five of these stated that they had thought about the use of videotape. All of these employers rejected the use of videotape for the same reason; the cost factor was too high for the return value of the system to their training program. The five companies that considered the use of a videotape system were Dairyland Power Company, Lutheran Hospital, Gateway Transportation, La Crosse Cooler Company, and St. Francis Hospital.

The First National Bank considered the purchase of several cassette tape recorders for use in training, but

decided not to do so for reasons Mr. Mach did not specify.

Jack Low, who has a franchise with American Motors as well as Ford Motors, said that the American Motors division was anticipating an audiovisual oriented training program. Indications were that the format would be 16mm films which would require that Low Motors set up their training operations to include this form of media.

Personnel at Northern States Power and St. Francis Hospital both considered the use of a filmsound system. Both rejected the purchase of the unit because of cost. Northern States Power could not justify the cost with the end results of using such a system. St. Francis could justify the need for such a unit, but they were unable to procure the necessary funds to purchase the system.

Audiovisual Media Beneficial

All of the employers interviewed agreed that the use of audiovisual media had been beneficial to their training programs. They all appeared to be very enthusiastic about using media. Most of them stated that they were looking forward to increased use of media.

Some employers felt that their job of training employees would be proportionately more difficult were media not available.

Future Plans for Media

Even though all of the employers questioned appeared enthusiastic about the use of media for their present

training situations, they were not equally enthusiastic about future plans for media. Five of the employers interviewed mentioned that they felt their use of media had reached the peak. There were no future plans for increasing the use of existing media or addition of other forms of media.

The other twelve employers responded that future use of media, either in existing formats or new ones, was a definite consideration of their respective organizations.

Russel Hurst, Manager of Continental Can Company, stated that his company would attempt to tape their own training presentations using their video system. He said, "This will give us the added advantage of being able to concentrate on local problem areas that our main office cannot visualize."

Joan Kjomy, Director of In-Service Education for Lutheran Hospital, said, ". . . by using more media we can free more people from the arduous task of training new employees."

From all indications, the employers appeared to have a certain degree of respect for the use of audiovisual media. The one problem that seemed to be of primary concern to them regarding the future use of media was the lack of resource areas. Most of their programs were very specialized and they often complained of a lack of audiovisual software. Some of this problem was alleviated in the situations where a large corporation was able to produce its

own media and distribute it to the smaller organizations. However, this solution does not exist for the smaller industries. Apparently, this has become a perplexing problem for some employers and no readily identifiable solution is at hand.

SUMMARY

Of the seventeen employers that were interviewed, three employed less than 25 people, three employed 25 to 50, three employed 51 to 100, two employed 101 to 250, one employed 251 to 500, one employed 501 to 1000, and four employed over 1000. A total of seventeen employers of the eighty-nine contacted used some form of audiovisual media for training purposes. This represented 19.12 percent of the total sample. The majority of the employers preferred to use on-the-job training to teach employees. The number of employees trained by the companies varied from sixteen to over one-thousand people. Only three of the employers interviewed had audiovisual departments in their companies. Six employers had information concerning the amounts spent on audiovisual media; this varied from \$200.00 per year to \$2000.00 per year. The most frequently owned audiovisual equipment was the 35mm slide projector. The most popular medium was both 16mm films and videotapes. The use of media varied considerably between companies; some employers used media in the conventional situations while others had found more specific uses of media. Media was generally used to

reinforce the spoken word and to eliminate inconsistency of training. Only two employers produced all of their own audiovisual media. Three employers felt that the use of media had reduced the cost of training. Nine employers stated that they had not considered the use of any other forms of media for their respective training programs. All of the employers agreed that the use of media had been beneficial to their training programs.

Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

In this chapter, a summarization of the findings of the study will be developed. A discussion of conclusions that the writer reached as they relate to the material obtained will also be included. Finally, recommendations will be made relative to the findings of the study.

SUMMARY

The study included a sample of eighty-nine employers in the La Crosse, Wisconsin area. The employers were contacted in order to ascertain which of the employers used audiovisual media in the process of training employees. The responses revealed that seventeen employers, 19.12 percent of the sample, were using some form of media in the area of employee education. The seventeen employers were interviewed and the resulting information was collected and tabulated. From the data received, it was determined that the employers ranged in size from less than twenty-five employees to well over one-thousand employees. The employers trained from as few as sixteen employees to over one-thousand employees annually. Ten of the seventeen companies stated that they preferred to train their personnel by the on-the-job method. Only three of the seventeen employers, 17.6 percent of the

total number of employers interviewed, had a separate audio-visual department in their organization. Budgets for audio-visual equipment and media varied from \$200.00 to \$2000.00 per year.

There were thirteen different forms of audiovisual equipment used by the various employers. Twenty-three 35mm slide projectors were owned by ten different employers, this represented the piece of equipment most frequently owned by the employers. There were also ten companies that owned videotape equipment, but there were only thirteen systems among the ten employers.

Videotape and 16mm films were the most popular mediums, being preferred by six employers each. Videotapes were preferred because of versatility and flexibility. The 16mm films were preferred because of the availability and adaptability of the medium.

The medium that the employers used in training situations was used in much the same manner as our educational institutions might use media. There were several employers that had adapted the use of a medium to their specific training requirements. In general, media was used to reinforce the spoken word, unify training presentations, eliminate inconsistency in training, and free personnel from repetitious material. Only two employers produced all of the audiovisual material that was used in their programs. The media was being used to shorten training programs as an attempt to reduce the costs of training.

All seventeen employers agreed that media had been beneficial to their training programs. The majority of those interviewed mentioned that the future use of media in their programs would amount to increased use of existing forms or implementation of newer forms of media.

CONCLUSIONS

As was expected, the results of the survey reinforced the expectation that the larger corporations, those employing over one-thousand persons, would utilize media more extensively than any of the other groups of employers; 100 percent of the group employing over one-thousand persons used media for training. This group was also the only group in which the employers had separate audiovisual departments; three of the four employers in this group had separate audiovisual departments. By referring to Table 3 on page 35, the number of employers using media are given for each group along with the percentage of the group they represent. Table 3 also indicates the percentage of the total sample that each group represents; this is 19.12 percent of the total sample. The estimate given by the researcher in the hypothesis was 15 percent. The 19.12 percent represents only the percentage of the employers contacted that used media and should not be used to conclude that this indicates that 19.12 percent of all the La Crosse employers use media for training.

The results of Table 7, pages 42 through 44, show

that 16mm films and videotapes were the most popular forms of media used by La Crosse employers at the time of the study. From the comments made by some of the employers, it appeared that videotape could become the most important integral part of most training programs. If the cost factor could be overcome, the use of videotape can be expected to increase considerably.

Education, in any form, can be expected to have serious limitations. Industrial education is no exception. From the conversations with the various employers in La Crosse, it was possible to identify some of the training problems encountered by local employers. Some of the problems were obviously independent of education and were solely the result of the business end of employee education. Those who were responsible for the education of the employees within their respective companies were, for the most part, aware of individual pitfalls.

Cost was the main concern of virtually all of the employers interviewed. They realized that there were a number of cost factors involved in training an employee; these cost factors were not present in the normal processes of education. While a person, employed by a company, is being trained he is also likely to be paid a salary. Thus, it becomes a matter of good business to train people quickly in order not to have an employee away from his job for extended periods of time. While the employee is away from his duties, he is also not producing, so there is further loss of money

involved. For reasons such as these, the people that are involved in the training of employees are aware of these factors and are making attempts to resolve the problems of ineffective training. This was also why several of the La Crosse employers had turned to audiovisual media; not to replace complete training programs, but rather to supplement existing programs and to make them more effective so that the learning of material is quicker and the information is retained longer.

There seemed to be a certain amount of respect for audiovisual media generated by the employers. They seemed to realize the potentials of effective use of media and at the same time had not become completely dependent on media. The potentials were realized because there was a feeling among the employers that they were not getting the full benefit on using media. Most of these employers were seeking new ways of getting more use from existing media and exploring the potentials of new forms of media.

Another area of concern for the employers was the lack of materials related to their specific needs. This may explain the rising popularity of videotape because this medium allows programs to be developed and produced by individual companies in areas that are of specific interest to the employer.

The lack of software may also contribute to the unpopularity of the filmstrip projector. Several employers pointed out that filmstrip programs pertaining to their

training requirements were not available.

The overall picture concerning the use of audiovisual media appeared to be generally good. There were indications that more emphasis would be placed on the future use of existing media and development of newer forms of media. Employers indicated that they would become more responsible for their own educational programming and development of media to suit their particular requirements.

RECOMMENDATIONS

What does the use of audiovisual media have in common with education in schools and industries; everything or nothing? The audiovisual equipment used by the schools is the same as that used by industries. The reasons for using media in the schools are similar to those for industries; to reinforce the spoken word, clarify concepts, and relieve teachers of repetitive teaching. Realistically, schools have much in common with industries concerning the use of audiovisual media; it may not be everything, but it certainly is not nothing. If our attention is focused on this area of "common" between schools and industries, it may be possible to find the means of resolving some problems that affect both schools and industry about the use of audiovisual media.

To be somewhat more specific, the study revealed that only three of the seventeen local employers interviewed had audiovisual departments. At the same time, the employers

indicated that a major concern for them is the lack of audiovisual media related to their specific needs. These employers did not have the necessary resources available to develop their own audiovisual oriented training programs. If these resources were made available to them, it is feasible that the employers would be able to create their own audiovisual materials for training.

Some of these resource areas are already in existence; the University of Wisconsin-La Crosse Audiovisual Department with a graphics area, photography facilities, audio studio, and an adequate television studio, is one example. If La Crosse industry and the university could come to some terms concerning the use of existing facilities and plans for future expansions, there could be a resolving of problems that may exist for both parties. An arrangement of this sort could possibly prevent the duplication of expensive facilities and aid in the cost reduction of existing facilities. This proposal is left for future research and considerations.

Even though the employers interviewed did indicate that they felt the use of media had been beneficial to training, they were unable to measure the effectiveness of using media. Perhaps more research could be done in this area to determine if the use of media provides more efficient and effective training for the employers.

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APPENDIX A

Table 9
Employers Contacted

Name of Employer	La Crosse Address
1. Aircraft Parts Mfg. Co.	1650 Oak St.
2. American Millwork	2305 South Ave.
3. Badger Corrugating Co.	1801 West Ave. So.
4. Bakalars Bros. Sausage Co.	2219 South Ave.
5. Bob Burg Oldsmobile-Cadillac	206 S. 6th St.
6. The Borden Co.	1301 S. 8th St.
7. Chopie Tool & Die Co.	531 Copeland Ave.
8. Collins-La Crosse Sign Co.	3rd & Pine Sts.
9. Coulee State Bank	1520 Losey Blvd. So.
10. Continental Can Co.	1501 St. James St.
11. Dahl Motors La Crosse, Inc.	3rd & Division
12. Dairyland Power Co.	2615 East Ave. So.
13. Dolly Madison Dairies	Ramsey Court
14. Dumont Co.	913 Logan St.
15. Dutch Oven Bakery	1425 Market St.
16. The Elite	412 Main St.
17. Erickson Bakery	320 S. 5th Ave.
18. T. C. Esser Co.	224 Causeway Blvd.
19. Farley's Quality Sausage	709 Rose St.
20. First National Bank	305 S. 5th Ave.
21. Fowler & Hammer, Inc.	157 Sumner St.
22. Franklin Iron Works	819 Bainbridge St.
23. Frey Forest Products	2305 Winnebago St.

Table 9 (continued)

Name of Employer	La Crosse Address
24. Gateway Products	129 Main St.
25. Gateway Transportation	445 Park Plaza Dr.
26. Grams Seed Store	1303 S. 3rd St.
27. Handi-Gadgets Corp.	1230 Clinton St.
28. G. Heileman Brewing Co.	925 S. 3rd St.
29. Hemstock Bros.	1702 Kramer St.
30. Hoerner-Waldorf Container Div.	1635 Caledonia St.
31. Hydro-Chemical Ltd.	2020 South Ave.
32. Industrial Pattern & Design	303 Causeway Blvd.
33. Inland Printing	2009 West Ave. So.
34. Frank J. Italiano	2917 S. 27th St.
35. Johnson Service Co.	1101 S. 8th St.
36. La Crosse Awning Co.	901 S. 4th St.
37. La Crosse Brush Co.	3235 George St.
38. La Crosse Casting	S111 & Prospect Sts.
39. La Crosse Concrete	1725 Gillette
40. La Crosse Cooler Co.	2809 Losey Blvd. So.
41. La Crosse Garment Co.	1207 S. 7th St.
42. La Crosse Glass Co.	604 S. 3rd St.
43. La Crosse Glove Co.	107 N. 3rd St.
44. La Crosse Paper Co.	200 La Crosse St.
45. La Crosse Printing	212 State St.
46. La Crosse Products	1648 Liberty St.
47. La Crosse Rubber Mills	St. Andrew & Loomis

Table 9 (continued)

Name of Employer	La Crosse Address
48. La Crosse Steel Roofing Co.	2911 S. 27th St.
49. La Crosse Telephone Co.	4th & Division Sts.
50. Land-O-Lakes Dairy	212 Hood St.
51. John Torrance & Sons	328 S. Front St.
52. Jos. J. Leinfelder & Sons	2015 Ward Ave.
53. Ligneel Concrete Products	624 Copeland Ave.
54. Low Motor Co.	6th & Cass Sts.
55. Lutheran Hospital	1910 South Ave.
56. Luxco, Inc	327 N. Front St.
57. Machine Products	525 N. 2nd St.
58. McLoone Metal Graphics, Inc.	75 Sumner
59. Meir Brick Co.	520 S. 2nd St.
60. Modern Wood & Plastics	908 S. 2nd St.
61. Moen Photo Service, Inc.	1820 West Ave. So.
62. Nesco Signs	2136 South Ave.
63. Northern States Power Co.	122 N. 5th Ave.
64. O. J. Lunde Foundry	518 S. 2nd St.
65. Pamerin Cigar Co.	113 S. 2nd St.
66. Pepsi Cola Bottling Co.	1900 West Ave. So.
67. Pop Doc	102 Division St.
68. Pyroil Co.	20 Copeland Ave.
69. Radford Co.	1724 Oak St.
70. Ray Hutson Chevrolet, Inc.	100 Mormon Coulee Rd.
71. Royal Engraving Co.	214 Copeland Ave.

Table 9 (concluded)

Name of Employer	La Crosse Address
72. SARCO	215 State St.
73. Schlicht Select Sausage Co.	1115 Gillette St.
74. Seven-Up Bottling Co.	2041 Avon St.
75. Soderberg Optical Service	205 Lynne Tower Bldg.
76. St. Francis Hospital	709 S. 10th St.
77. Staats Pennant Co.	1607 La Crescent St.
78. Sweet-Shop	1113 Caledonia
79. Swift & Co.	710 S. 3rd St.
80. The Topper	471 2nd Ave. No., Ona.
81. The Trane Co.	3600 Pammel Creek Rd.
82. Tri-State Monument Co.	1917 West Ave. So.
83. Trueline Tool & Die Co.	810 S. 2nd St.
84. UOP Norplex Corp.	1309 Norplex Dr.
85. Village Bake Shop	Village Shopping Cntr.
86. White & Co.	1825 Thomas Rd.
87. Wiggert Bros.	4th & Jay Sts.
88. Wison Dental Lab.	Van De Steeg Bldg.
89. Yerly Coal Co.	701 Sumner

APPENDIX B

Table 10

Sample of Questionnaire

Name of Employer: _____

Address: _____

Number of Employees: _____

Person in charge of training: _____

1. Types of training methods used by employer:

1. On-the-job _____
2. Classroom instruction _____
3. Individual instruction _____
4. Self-instruction _____
5. Programmed instruction _____
6. Other _____

2. Which method of training is preferred and why?

3. How many personnel are trained annually?

4. Do you maintain an audiovisual department?

5. What amount of money is spent annually on audiovisual equipment and media?

6. What specific audiovisual equipment is used by your organization?

7. What equipment or medium is most popular and why?

8. How is audiovisual media used in the training program?

9. Why is audiovisual media used in the training program?

10. Where does the media used in your programs come from?

11. Has the use of audiovisual media reduced the cost of training?

12. Have any other forms of media been considered by your organization for use in the training program?

Table 10 (concluded)

-
-
13. Has the use of audiovisual media been beneficial to your training program?
 14. What are your future plans concerning the use of audiovisual media for training purposes?
-
-

APPENDIX C

Table 11

Employer Questionnaire Results

Name and Address of Employer:	Continental Can Co. 1501 St. James St.
Name of Person Contacted:	Russel Hurst Manager
Number of Employees:	45

1. Do you use the following types of training methods?

1. On-the-job training? Yes, primarily we use this type of training in our organization. Because of the size of our operation, we can not afford to take our men off the production line for long periods of time.
2. Classroom instruction? Yes, although restricted to a small amount and then concerning only management and supervisors. We usually give information or training to our supervisors who in turn pass along the information to the other employees.
3. Individual instruction? If I understand the question right, this would be very much like our on-the-job training where a more skilled worker helps a newer employee; in that respect we do use it.
4. Self-instruction? Yes, we are very interested in this approach to training because it frees much of the supervisors time that would normally be spent on training. We find that videotape works well in this area.
5. Programmed instruction? Not as yet, but we feel that there is a possibility of this in the future. Just when and how we do not know at this time.
6. Other methods? None.

2. How many personnel are trained annually?

This is rather difficult to say. For the most part, almost all of our employees are generally involved in some type of training.

Table 11 (continued)

3. Do you maintain an audiovisual department?

No.

4. What is your annual budget for audiovisual equipment and media?

I'd have to speculate on that and say about \$500.00 a year.

5. What specific audiovisual equipment is used by your company for training?

1 videorecorder
1 video monitor
1 Dukane slide sound system
1 16mm film projector

6. What equipment is used most frequently and why?

The videotape system is now being used most often because of the flexibility of the medium. It can be used in a variety of areas, even outside the area of training. By receiving tapes from our main office, we can sit in on high level meetings and receive information that we otherwise would have missed. We can use the system to monitor our production lines to determine problems either with the machines or possibly the techniques of operation. We feel that videotape has unlimited possibilities for us. We have to start to develop its potential.

7. How is the media used in the training program?

Right now we do not have a scheduled training program. Usually what happens is that we receive a training tape or slide program from the main office. We then have to determine the validity of the program and whether it will be useful to us. After this, we will arrange for our men to see the program. Usually, this amounts to a seminar approach where we can discuss their reactions.

8. Why is audiovisual media used in the training program?

We find that by using the media that we have available, we can transmit the information much quicker and more effectively. Along with this, we also free much of our management time that might otherwise be spent on repetitive unproductive tasks involved with training.

Table 11 (concluded)

9. Where is the media produced that you use in the program?

All of our material comes to us from the main office.

10. Has the use of media reduced the cost of training?

It has not actually reduced the cost of training except that it takes less time to inform employees.

11. Have any other forms of media been considered for use?

No, not at this time.

12. Has the use of media been beneficial?

Yes, very much so. I think we have just begun to realize the full potential of using media, especially videotape.

13. What are your future plans concerning media?

I'd have to say that we can expect to use more audiovisual media in the future. We will probably begin to tape our own presentations for local use. This will give us the added advantage of being able to concentrate our attention on local problem areas that our main office can not visualize.

Table 12

Employer Questionnaire Results

Name and Address of Employer:	Dahl Motors La Crosse, Inc. 3rd & Division Sts.
Name of Person Contacted:	Gene Leonard General Manager
Number of Employees:	44
1. Do you use the following types of training methods?	
1. On-the-job training?	Yes, we do.
2. Classroom instruction?	Yes, but it is limited to sales meetings and seminars.
3. Individual instruction?	Yes.
4. Self-instruction?	No, not at present?
5. Programmed instruction?	Programmed instruction will be introduced by the use of videotape.
2. How many personnel are trained annually?	
	All of our employees are on a continuous training program.
3. Do you maintain an audiovisual department?	
	No.
4. What is your annual budget for audiovisual equipment and media?	
	With the purchase of the video cassettes and machine, about \$2000.00 a year.
5. What specific audiovisual equipment is used by your company for training?	
	1 Dukane slide sound system 1 color videotape cassette playback machine 1 color monitor
6. What equipment is used most frequently and why?	
	The videotape machine is used almost exclusively.

Table 12 (continued)

6. (continued)

We use the video cassette primarily because of its extreme versatility. We have also noticed that unlike other static forms of media, such as a filmstrip, the video cassette format is able to attract and hold the viewers attention much longer and with more effective results.

7. How is the media used in the training program?

One use of the video system that we have found very helpful is when a management meeting at the home office takes place, we are able to obtain tapes of the proceedings and this allows our organization to take part in the meeting. The video together with the audio allows a better understanding of what went on at the meeting, so there is more effective transfer of information.

8. Why is audiovisual media used in the training program?

After selling a particular product for some time, a salesman is apt to relax somewhat. Sometimes to the point where he can actually forget some very important facts, either about the product or selling itself. We feel that by having our salesmen use the video system it will be able to keep them informed on current sales procedures and new equipment. It also insures that all of our people will receive exactly the same information and it may be repeated as is necessary.

9. Where is the media produced that you use in the program?

For the present, all of the tapes are prepared by Ford Motor Company and distributed. This system is presently in its very early stages, but long range plans indicate purchase of additional equipment so that we will be able to produce our own tapes.

10. Has the use of media reduced the cost of training?

We are unable to say at this time.

11. Have any other forms of media been considered for use?

No.

12. Has the use of media been beneficial?

Yes, most definitely. It is much more effective.

Table 12 (concluded)

13. What are your future plans concerning the use of media?

I would have to say that we will be using much more media in the future. After seeing the video cassette work for us, I see no other way than to use more of this type of training aid.

Table 13

Employer Questionnaire Results

Name and Address of Employer:	Dairyland Power Co. 2615 East Ave. So.
Name of Person Contacted:	Hugh Burke
Number of Employees:	540

1. Do you use the following types of training?

1. On-the-job training? Yes, this our primary method to train employees.
2. Classroom instruction? Yes, although it is limited and not on a regular schedule.
3. Individual instruction? Yes.
4. Self-instruction? Yes, to some degree.
5. Programmed instruction? Yes, we have a number of programmed courses covering a number of subjects.

2. How many personnel are trained annually?

A definite number is hard to come by because most of our employees are involved in some form of training continually.

3. Do you maintain an audiovisual department?

No.

4. What is your annual budget for audiovisual equipment and media?

I would say that approximately \$2000.00 a year is spent on audiovisual media. This would be for the whole company and not just for training.

5. What specific audiovisual equipment is used by your company for training?

6-35mm slide projectors
3-16mm film projectors
2-overhead projectors
1-tape recorder
1-videotape system

Table 13 (concluded)

6. What equipment is used most frequently?

Films and slides are used most frequently and preferred medium. Partially because of the availability of the software, and partially because of its adaptability.

7. How is the media used in the training program?

As a visual aid. One of the errors made quite often is that the movie or slide presentation is used as an end in itself. There should be discussion before and after presentation.

8. Why is audiovisual media used in the training program?

Well, I think it makes the training program more effective. Rather than just having a person lecture, media is used to break the monotony of straight lecture. It is used to introduce interest, variety, and participation.

9. Where is the media produced that you use in the program?

Visual aids are hard to come by. Our needs are specialized and it isn't commercially attractive to make slides and films pointed at this particular market. We look in any place we can for media.

10. Has the use of media reduced the cost of training?

I doubt very much that it has reduced the cost of training; it has made it more effective.

11. Have any other forms of media been considered for use?

Yes, videotape.

12. Has the use of media been beneficial?

Yes, quite definitely.

13. What are your future plans concerning the use of media?

It's hard to say at this point. We will be undergoing a number of changes which will eventually require more extensive use of audiovisual media, especially the use of videotape.

Table 14

Employer Questionnaire Results

Name and Address of Employer: Dolly Madison Dairies
Ramsey Court

Name of Person Contacted: Mr. Hammes

The following interview was conducted by telephone which accounts for the sparsity of information.

1. What type of training methods do you use?

On-the-job training except when films are shown.

2. What specific audiovisual equipment is used by your company for training?

1-16mm film projector
1-35mm slide projector

3. What equipment is used most frequently?

The 16mm projector because more material is available.

4. How is the media used in the training program?

We use the film projector to show our employees safety films.

5. Why is audiovisual media used in the training program?

Because the insurance company requires that the employees view the safety films.

6. Where is the media produced that you use in your program?

The insurance company produces and distributes it.

7. Has the use of media been beneficial?

Yes, our employees are more conscious of safety factors because of the films.

8. What are your future plans concerning the use of media?

Actually , we have no plans for increased use of media. I think that we are pretty much where we want to be as far as using films is concerned.

Table 15
Employer Questionnaire Results

Name and Address of Employer:	First National Bank 305 5th Ave. South
Name of Person Contacted:	Milo Mach
Number of Employees:	70

1. Do you use the following types of training methods?

1. On-the-job training? Yes, primarily to teach the tellers.
2. Classroom instruction? Yes, in the form of weekly meetings where various procedures and practices are discussed.
3. Individual instruction? No.
4. Self-instruction? No.
5. Programmed instruction? Yes.

2. How many personnel are trained annually?

Approximately fifteen tellers are trained annually. There are also about five customer contact personnel trained.

3. Do you maintain an audiovisual department?

No.

4. What is your annual budget for audiovisual equipment and media?

Approximately \$200.00 per year.

5. What specific audiovisual equipment is used by your company for training?

- 1-Dukane slide sound system
- 1-overhead projector

6. What equipment is used most frequently?

The filmstrip is used most often because of the number of good programs that are available, usually on a free loan basis. It is also cheaper.

Table 15 (concluded)

7. How is the media used in the training program?

It is used when a presentation is given and there is a filmstrip or film available depicting those principles we are discussing.

8. Why is audiovisual media used in the training program?

We use media because we believe that people will remember what they can see longer than what they hear. It also creates consistency in our training, this way we are not apt to leave out an important concept. We use the overhead projector to repeat ideas.

9. Where is the media produced that you use in the program?

Most of the films and filmstrips are supplied to us by the home office in Minneapolis. On the other hand, we do produce all of our visuals for the overhead.

10. Has the use of media reduced the cost of training?

It has helped us train personnel faster, so I guess we'd have to say that it has reduced our cost of training.

11. Have any other forms of media been considered for use?

Yes, we had considered the use of cassette recorders, but decided not to go this route.

12. Has the use of media been beneficial?

Yes, by all means.

13. What are your future plans concerning the use of media?

I would say that we could expect to use more media. However, at this time it would be difficult to project when and in what form this might be.

Table 16

Employer Questionnaire Results

Name and Address of Employer:	Gateway Transportation 445 Park Plaza Dr.
Name of Person Contacted:	Thomas Clark
Number of Employees:	4000

1. Do you use the following types of training methods?
 1. On-the-job training? The majority of our training is on-the-job.
 2. Classroom instruction? Very little if any at all.
 3. Individual instruction? Some of the management trainees receive individual instruction.
 4. Self-instruction? No.
 5. Programmed instruction? We have used the Earl Nightingale series on management training.
2. How many personnel are trained annually?

Approximately 1000 persons.
3. Do you maintain an audiovisual department?

No.
4. What is your annual budget for audiovisual equipment and media?

That information is not available.
5. What specific audiovisual equipment is used by your company for training?

3-16mm film projectors
2-35mm slide projectors
1-overhead projector
6. What equipment is used most frequently?

I'd have to say that the film projectors are. We had a movie made for Gateway Transportation, so we now use this to orient new employees.

Table 16 (concluded)

7. How is the media used in the training program?

Primarily, we use the movie we had made to motivate new people. Other than that our use of it is very limited.

8. Why is audiovisual media used in the training program?

If we have a film that is good, it is a good way to convey a message to a lot of people in a short period of time.

9. Where is the media produced that you use in the program?

Most of the media is handled through some insurance company or supplier.

10. Has the use of media reduced the cost of training?

I really couldn't say.

11. Have any other forms of media been considered for use?

We rented a video cassette system for a month on a trial basis, but decided not to purchase the unit because of the expense.

12. Has the use of media been beneficial?

I would have to say at this point that this is undetermined.

13. What are your future plans concerning the use of media?

Well, you always have an idea, but when you get down to the particulars of the situation you have to be able to justify the cost and the application. We're in business to make money. If we can save money by using media then we'll do so, but that means it must be justified before this approach is taken. So I'd say that our use of media is just about at a stable level for the time being.

Table 17

Employer Questionnaire Results

Name and Address of Employer:	Hoerner-Waldorf Container Division 1635 Caledonia
Name of Person Contacted:	James Schjolberg
Number of Employees:	21

The following interview was conducted by telephone which accounts for the sparsity of information.

1. What type of training methods do you use?

Only on-the-job training.

2. What specific audiovisual equipment is used by your company for training?

1-16mm film projector

3. How is the media used in the training program?

We use films to train our employees in methods of safety and accident prevention. The films are shown at monthly safety meetings.

4. Why is audiovisual media used in the training program?

Films are used because the insurance company which insures our plant requires that all employees participate in safety training.

5. Where is the media produced that you use in the program?

All of the films we use are provided by our home office in St. Paul.

6. Has the use of media been beneficial?

Yes. The films pertaining to safety are much more effective than lecturing on that subject.

7. What are your future plans concerning the use of media?

We do not plan to use media much more than we do at present.

Table 18

Employer Questionnaire Results

Name and Address of Employer:	Johnson Service Co. 1101 S. 8th St.
Name of Person Contacted:	E. K. Edwards
Number of Employees:	19

The following interview was conducted by telephone which accounts for the sparsity of information.

1. What type of training methods do you use?

Only on-the-job.

2. What specific audiovisual equipment is used by your company for training?

4-videotape systems. These systems float between our thirteen branch offices.

3. How is the media used in the training programs?

We use the video systems in seminar situations to train employees on products, procedures, sales, and safety practices.

4. Why is audiovisual media used in the training programs?

Some people understand the spoken word better than others and by using videotape we feel we may repeat a message often enough in various forms so that everyone will comprehend the message.

5. Where is the media produced that you use in the program?

At the home office in Milwaukee.

6. Has the use of media been beneficial?

Yes. The tapes are done quite professionally and depict basic facts about our business.

7. What are your future plans concerning the use of media?

There has been an increase in the use of media in the last year and we look for continued emphasis in this area.

Table 19

Employer Questionnaire Results

Name and Address of Employer: La Crosse Cooler Co.
2809 Losey Blvd.

Name of Person Contacted: Ted Saugsted

Number of Employees: 300

1. Do you use the following types of training methods?

1. On-the-job training? This method does not apply to our situation.
2. Classroom instruction? Yes, we start with this method. It degenerates into a seminar type approach after we get going.
3. Individual instruction? Not as such.
4. Self-instruction? No.
5. Programmed instruction? No.

2. How many personnel are trained annually?

Roughly about 200 people.

3. Do you maintain an audiovisual department?

No.

4. What is your annual budget for audiovisual equipment and media?

I really can't answer that because of the way money is budgeted for this type of operation.

5. What specific audiovisual equipment is used by your company for training?

- 1-35mm slide projector
- 1-filmstrip projector
- 1-opaque projector
- 1-closed-circuit television system

6. What equipment is used most frequently and why?

The opaque projector, because it allows us to use existing material.

Table 19 (concluded)

7. How is the media used in the training program?

The opaque projector lets us use charts that we have prepared on 8 $\frac{1}{2}$ by 11 sheets of paper. It lets us put photographs on the screen to illustrate obsolete equipment. Wiring diagrams can be projected on the screen for clearer instruction.

The slide projector is used in much the same way. Simplified versions of electrical circuitry can be presented so that we can quickly switch the slides showing energized and deenergized positions. We can do this quickly and in color.

8. Why is audiovisual media used in the training program?

Because it is much better than using a hand drawing. It adds a touch of professionalism to the presentation and we are trying to give the best impression we can.

9. Where is the media produced that you use in the program?

All of the media is produced locally by the company.

10. Has the use of media reduced the cost of training?

No, not really.

11. Has the use of media been beneficial?

Yes, definitely. It's probably going to get even more beneficial as we originate new programs.

12. Have any other forms of media been considered for use?

Yes, we are considering the use of a closed-circuit television system we have. We plan to tape certain portions of a presentation and then using the monitor in our classroom, we illustrate specific points of a certain process as it relates to our program.

13. What are your future plans concerning the use of media?

We will definitely be using more media as we try to incorporate slide presentations and television presentations into the training program.

Table 20

Employer Questionnaire Results

Name and Address of Employer:	Low Motor Co. 6th & Cass Sts.
Name of Person Contacted:	Jack Low
Number of Employees:	46

1. Do you use the following types of training methods?
 1. On-the-job training? Yes.
 2. Classroom instruction? Yes.
 3. Individual instruction? Yes.
 4. Self-instruction? Yes.
 5. Programmed instruction? Yes.
2. How many personnel are trained annually?

All of our employees partake of some form of training during the year.
3. Do you maintain an audiovisual department?

No.
4. What is your annual budget for audiovisual equipment and media?

About \$600.00 per year.
5. What specific audiovisual equipment is used by your company for training?
 - 1-Dukane slide sound system
 - 1- color videotape cassette playback system
 - 1- color monitor
6. What equipment is used most frequently and why?

Up until this year the Dukane projector was used exclusively. However, now that we have the EVR system, the Dukane will be phased out and our entire training program will be supplemented by the EVR system.

Table 20 (continued)

7. How is the media used in the training program?

When a new salesman is hired he spends the first week watching presentations prepared by the main office for the EVR. After this, there is a period of on-the-job training with frequent periods of review using the videotape system. In fact, all of our salesmen use the programmed material provided as a refresher.

There are also tapes prepared for periodic sales meetings. We view the tapes during the meetings and then the men can also view them individually at their convenience.

Our mechanics can also make use of the system. There are tapes prepared for all the lines of cars that we handle and the tapes provide visual instruction on particular maintenance procedures.

8. Why is audiovisual media used in the training program?

Using visual media enables a more effective way of transmitting information. There are many people who just naturally learn better from a film. Most of the presentations available to us are very well done and result in effective learning. The use of videotape has also resulted in an emphasis on self-education. Most of our tapes are a form of programmed instruction and require virtually little or no supervision.

9. Where is the media produced that you use in the program?

All of the media is provided by the main office.

10. Has the use of media reduced the cost of training?

No. In fact, it has increased it because of the expense of providing the software for the videotape system.

11. Have any other forms of media been considered for use?

Yes. Our franchise with American Motors is anticipating the initiation of an audiovisual oriented training program, much like the one supplied by the Ford Motor Company. This will probably be in a somewhat different format, but they have not committed themselves as of yet. It appears that it will be in the form of 16mm training films, but this is not definite at this time. We will consider the program when it becomes available.

Table 20 (concluded)

12. Has the use of media been beneficial?

Very definitely. I would say that we would be lost without it.

13. What are your future plans concerning media?

I would have to say that we will be using it more extensively than we are now. We will continue to add to our library of videotapes. In a relatively short time we hope to have a comprehensive library of tapes.

Table 21

Employer Questionnaire Results

Name and Address of Employer:	Lutheran Hospital 1910 South Ave.
Name of Person Contacted:	Joan Kjomy
Number of Employees:	1100

1. Do you use the following types of training methods?
 1. On-the-job training? Yes.
 2. Classroom instruction? Yes.
 3. Individual instruction? Yes.
 4. Self-instruction? Yes.
 5. Programmed instruction? No.
 6. Other methods? Yes. We use the demonstration approach to teaching.
2. How many personnel are trained annually?

I can't really give you an accurate estimate.
3. Do you maintain an audiovisual department?

Yes, as part of the House Keeping Department.
4. What is your annual budget for audiovisual equipment and media?

That information is not available.
5. What specific audiovisual equipment is used by your company for training?
 - 3-16mm film projectors
 - 5-35mm slide projectors
 - 4-filmstrip projectors
 - 1-overhead projector
 - 1-opaque projector
 - 20-cassette tape recorders
 - 4-reel-to-reel tape recorders
 - 1-slide sound system
 - 1-video cassette system

Table 21 (continued)

6. What equipment is used most frequently and why?

Right now, the filmstrip projector is used most frequently because it's what we have. In the near future we hope to switch the emphasis to the slide sound system.

7. How is media used in the training program?

Most often it is the content that determines the method of teaching.

Quite often the media is used in combination with lecturing. Media is used extensively in our orientation program.

8. Why is audiovisual media used in the training program?

Seeing something provides a better learning experience than just relying on the spoken word. Aside from this, the kids we're getting from the schools and universities have been brought up expecting the use of audiovisual. Frankly, the majority do not know how to learn or respond from a lecture. They have become conditioned to having everything presented to them and in this respect the use of audiovisual media is not beneficial to them because it aids this process.

9. Where is the media produced that you use in the program?

The filmstrips and films are not produced locally, but the slide programs are produced by the hospital photography department. Other materials for the overhead and recorders are produced here.

10. Has the use of media reduced the cost of training?

No, in fact it has made it more expensive. However, it has made training more effective.

11. Have any other forms of media been considered for use?

The individual videotape carrell was considered, but this was dropped because the software was too medically oriented and this was not applicable to our level of training. There was also a cost factor involved.

Table 21 (concluded)

12. Has the use of media been beneficial?

Yes, very definitely.

13. What are your future plans concerning the use of media?

We plan to use more of it because of the need to replace the demonstration method of teaching. By using media we can free more people from the arduous task of training new employees.

Additional comment:

Audiovisual media has become too sophisticated. Most of us in our operation are unable to properly use and operate the equipment. As a result, the overall function of our unit is not what it could be. Too many suppliers of audiovisual equipment are willing to sell the hardware, but fail to service the customer with suggestions and media to use and use it effectively.

Our basic problem with media is the lack of appropriate material. The media that is available is very generalized and this is what we do not need. We need more specific media and it appears that we will have to do it ourselves.

Table 22
Employer Questionnaire Results

Name and Address of Employer:	Northern States Power Co. 122 5th Ave No.
Name of Person Contacted:	Ray Mortt
Number of Employees:	130
1. Do you use the following types of training methods?	
1. On-the-job training? Yes.	
2. Classroom instruction? Yes.	
3. Individual instruction? Yes, on a limited basis.	
4. Self-instruction? Yes.	
5. Programmed instruction? No.	
2. How many personnel are trained annually?	
Approximately twenty-five people.	
3. Do you maintain an audiovisual department?	
No.	
4. What is your annual budget for audiovisual equipment and media?	
I do not have that information at my disposal.	
5. What specific audiovisual equipment is used by your company for training?	
1-16mm film projector	
1-35mm slide projector	
1-overhead projector	
1-tape recorder	
various charts	
6. What equipment is used most frequently and why?	
The slide projector. The reason being, we have various people out in the field looking at different things. They have the ability to record items of interest on film and bring them to the attention of others.	

Table 22 (continued)

7. How is the media used in the training program?

For example, if a crew is building a line with a new type of configuration, or using new material, we try to record this procedure and then we will show the program to our line crews and discuss the procedures with them. Just recently we had one of our supervisors record the steps in stringing a line across the interstate system. We will show this series to the crews and discuss each step as to what is involved, why we had to this particular way, and why we used a particular piece of machinery.

8. Why is audiovisual media used in the training program?

The probability of retaining what you want people to understand is much greater by using audiovisual means than just letting them read it out of the book. Often times you can combine methods.

9. Where is the media produced that you use in the program?

We do produce a good share of our own visual media. All of the films that we view come from Minneapolis. The visuals for the overhead are produced by us as are the slide presentations.

10. Has the use of media reduced the cost of training?

Yes. The overhead projector is one area where cost has been greatly reduced in providing charts and graphs. An overhead visual can be produced for a few cents where if the same chart had to be prepared by a draftsman it would cost considerably more.

11. Have any other forms of media been considered for use?

We considered the use of a unit combining a screen, projector, and recorder in one system. The reason we rejected it was because of the cost of the unit itself for what we were trying to get and the number of people we were trying to train in a specific area. The program material that was available was excellent, but we were talking about training two people. We felt that we couldn't justify the cost of the system for our specific purposes.

Table 22 (concluded)

12. Has the use of media been beneficial?

Yes, we are very enthusiastic about it.

13. What are your future plans concerning the use of media?

We will continue to use media in all of our training functions. We are getting to the stage where we insist that something like this be incorporated into training programs, even some meetings, in order to emphasize a particular point. Also to save the time and expense of having someone drawing charts for us.

Table 23 (concluded)

7. How is the media used in the training program?

When we get a new filmstrip in we usually have a shop meeting and view the filmstrip together. In this way any questions can be discussed and problems clarified right then. Of course the programs are available if a man wants to review a particular sequence on his own.

8. Why is audiovisual media used in the training program?

Because it is available to us. More than that though, it is a more effective means of communicating with our employees. They seem to be motivated more by the combination of sight and sound rather than getting the same information from a technical manual.

9. Where is the media produced that you use in the program?

All of the media comes from the main office in Detroit.

10. Has the use of media been beneficial?

Yes, we think it has and will be more so in the future.

11. Has the use of media reduced the cost of training?

No, I can't say that it has.

12. Have any other forms of media been considered for use?

No.

13. What are your future plans concerning media?

I would say that we will be using more media. Basically there seems to be a lot of enthusiasm concerning the use of media. Our programs are very well done and provide us with up to date training in specific areas.

Table 25

Employer Questionnaire Results

Name and Address of Employer:	Trane Co. Sales Engineer Training Pammel Creek Rd.
Name of Person Contacted:	Mel Laitinen
Number of Employees:	3000

1. Do you use the following training methods?

1. On-the-job training? We have on-the-job training that occurs when the sales engineers go out into the field offices. They work approximately six months after they leave here. They are going through continual on-the-job training by going out with other sales engineers on jobs.
2. Classroom instruction? All of the classroom instruction is done here at the home office in La Crosse. However, there is some classroom instruction done in some of our satellite offices.
3. Individual instruction? Yes, but it is closely related to the on-the-job method.
4. Self-instruction? In a very limited degree.
5. Programmed instruction? Not too much as of yet.

2. How many personnel are trained annually?

We train approximately 150 persons a year.

3. Do you maintain an audiovisual department?

Yes, but at this point is in an informal structure. Within the next year we will probably be able to develop something more structured.

4. What is your annual budget for audiovisual equipment and media?

That I can't really say at this time because we are changing our procedures and we do not have a clear picture of our budget commitments.

Table 25 (continued)

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-
5. What specific audiovisual equipment is used for training by your company?

2-35mm slide projectors
2-overhead projectors
2-video cameras
1-video recorder
1-video monitor
1-video switching unit.

6. What equipment is used most frequently and why?

I would say that is going through a period of transition. Up until recently, slides were used almost exclusively, but we have now phased out the use of slide program as the dominant media in our training program. We are now in the process of phasing in videotapes. We do not use the overhead projector as much as we would like to.

7. How is the media used in the training program?

The use of audiovisual media is not the dominant characteristic of our training procedure. To date, approximately 60 percent of our training presentations still are using the blackboard. Hopefully with time that will change.

8. Why is audiovisual media used in the training program?

My reason for using audiovisual aids is that I can conserve the energy that I have on a given day to dealing with repetitive material. We go through fundamentals of various subjects and these are static concepts in that they don't change from program to program. Every time I have to get up in front of a class and make those presentations it just means that much less energy I have available for working with individuals. My interest in visuals aids is from the standpoint that they free my time and energy to work with individuals.

9. Where is the media produced that you use in the program?

This is all done locally. Photography is done within the company.

Table 25 (concluded)

10. Has the use of media reduced the cost of training?

As far as our use of videotape for the international side, yes. It is going to be a very much cost saving factor in that our foreign offices will not have to send their men here to be trained.

I think that in the next few years we might even be able to shorten our training program, which would be a cost reducing factor.

11. Have any other forms of media been considered?

No, not really. I tend to stay away from very sophisticated or complex forms of audiovisual media because it becomes too easy to get bogged down in the mechanics of such things which ultimately takes away the time which the use of media is supposed to create.

12. Has the use of media been beneficial?

I think it is going to be. I feel that we are too early in the game to say it has been. From what I have seen it can't help but be.

13. What are your future plans concerning media?

I'd say that we will definitely use more. Especially as far as videotape is concerned.

Table 26

Employer Questionnaire Results

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- Name and Address of Employer: Trane Co.
Production Training
Pammel Creek Rd.
- Name of Person Contacted: John Murphy
1. Do you use the following types of training methods?
1. On-the-job training? Yes.
 2. Classroom instruction? We are just now getting into this type of training.
 3. Individual instruction? No.
 4. Self-instruction? No.
 5. Programmed instruction? No.
2. How many personnel are trained annually?
- I would say better than half of our employees.
3. Do you maintain an audiovisual department?
- Yes, although unstructured at this time.
4. What is your annual budget for audiovisual equipment and media?
- I can't really say at this time.
5. What specific audiovisual equipment is used by your company for training?
- 1-16mm film projector
 - 2-35mm slide projectors
 - 2-overhead projectors
 - 1-hook & loop board
 - 1-videotape system
6. What equipment is used most frequently and why?
- Probably the film projector.

Table 26 (continued)

7. How is the media used in the training program?

The flip charts and overhead visuals will be prepared in advance. Generally, these will be in an outline form which will be used in the training program just as that; an outline. We will also use these forms of media to emphasize or to recall a particular point as we go along. We will show them the outline and the objectives and as we go along we will examine each point and break it down in detail.

The material for the hook & loop board is made up in advance by our art department. The placards list key points. If I'm looking for techniques of leadership I'll outline the key points and these will be on the placards.

8. Why is audiovisual media used in the training program?

It speeds up the learning process. Obviously, you have to speak the language of the people that are attending your session. The reinforcement to the spoken word obviously is the repetition of the word or display of the word, thought, or idea in front of the people.

9. Where is the media produced that is used in the training program?

The slides, overhead visuals, flip chart visuals, and other similiar art work are all done locally. The other media we use is either rented or purchased.

10. Has the use of media reduced the cost of training?

Yes. I think it can and has. I say can because at this time we are in the intial stages of a well developed training program and it would be very difficult to state positively that the use of media has reduced the cost of training. On the other hand, our past experiences with media has given us every indication that it has reduced the actual cost of training.

11. Have any other forms of media been considered for use?

Not at this time, although there is a strong possibility that we may experiment more with videotape.

Table 26 (concluded)

12. Has the use of media been beneficial?

It certainly is. Without audiovisual media the training would take much longer to accomplish. Initially, I will be a one man coordinator for a rather large operation. Without audiovisual media I could immediately envision a staff, but by using audiovisual material I think that I will be able to do the job myself.

13. What are your future plans concerning media?

Right now I'd say that we will be using more. We're very limited as to what we have used so far. A better answer might be that whenever and wherever we can we'll go to audiovisual media.

Table 27

Employer Questionnaire Results

Name and Address of Employer: St. Francis Hospital
709 S. 10th St.

Name of Person Contacted: Barbara McIlvaine

Number of Employees: 1050

1. Do you use the following types of training methods?

1. On-the-job training? Yes.
2. Classroom instruction? Yes, on all levels.
3. Individual instruction? Yes, we try to work on a one-to-one basis with all of our new employees.
4. Self-instruction? To a limited degree.
5. Programmed instruction? Yes, on a limited basis.

2. How many personnel are trained annually?

Approximately 600 a year.

3. Do you maintain an audiovisual department?

Yes.

4. What is your annual budget for audiovisual equipment and media?

I do not have that information.

5. What specific audiovisual equipment is used by your company for training?

2-16mm film projectors
2-35mm slide projectors
1-8mm loop film projector
2-overhead projectors
2-filmstrip projectors
1-audio tutorial system

6. What equipment is used most frequently and why?

The filmstrip projector and 16mm film projector because of the availability of media covering subject material in our area of education.

Table 27 (con)

7. How is the media used in the training program?

We use the programmed instructional material as an end in itself in that it is a complete educational experience on its' own. The other audiovisual media and equipment is used in a classroom situation usually as reinforcement to concepts covered by the instructor.

8. Why is audiovisual media used in the training program?

To reinforce the verbal comments made by the instructors.

9. Where is the media produced that you use in the program?

All of the media comes from other sources.

10. Has the use of media reduced the cost of training?

I don't think it has.

11. Have any other forms of media been considered for use?

We did look closely at a sound on slide system, but we were unable to procure the necessary funds to purchase the unit. We also considered videotape, but again the cost factor kept us from getting the unit.

12. Has the use of media been beneficial?

I would think so. It's difficult to evaluate, but I would think it has. I would hate to have to work without it.

13. What are your future plans concerning media?

Realistically, I think we could become more involved in making our own slides. The purchase of new equipment is an unrealistic consideration because of the cost of such equipment. Our budget simply does not allow us to indulge much in media even though we would like to.

Table 28

Employer Questionnaire Results

Name and Address of Employer: UOP Norplex Corp.
1309 Norplex Dr.

Name of Person Contacted: Avis Burton

The following interview was conducted by telephone.

1. What type of training methods do you use?

On-the-job training.

2. What specific audiovisual equipment is used by your company for training?

1-videotape system.

3. How is the media used in the training program?

The videotape system is used primarily in the training of supervisors and foremen in management procedures.

4. Why is audiovisual media used in the training program?

The programs are well done and present the necessary material in a clear concise manner and eliminates the problem of inconsistency in teaching management procedures.

5. Where is the media produced that you use in your program?

The tapes are prepared by the home office and distributed from there.

6. Has the use of media been beneficial?

Yes.

7. What are your future plans concerning media?

None at this time.
