AN AUDIO-VISUAL TRAINING PROGRAM FOR STUDENT EMPLOYEES IN COLLEGE AND UNIVERSITY FOOD SERVICE SYSTEMS

> Thesis for the Degree of M. S. MICHIGAN STATE UNIVERSITY SANDRA A. MCCABE 1971

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## AN AUDIO-VISUAL TRAINING PROGRAM

## FOR STUDENT EMPLOYEES IN COLLEGE

### AND UNIVERSITY FOOD SERVICE

## SYSTEMS

Ву

Sandra A. McCabe

### A PROBLEM

Submitted to the College of Human Ecology Michigan State University in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Department of Food Science and Human Nutrition

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#### INTRODUCTION

Michigan State University's Department of Dormitories and Food Services employs 3200 students or 61% full-time equivalents. These students hold positions in the areas of production, service, and supervision.

After reviewing and assessing the existing training programs for students, it was ascertained that certain training areas were in need of more thorough development. Proper use and care of equipment, including safety and sanitation, was one of these areas. This was evidenced as an area of need by monthly figures<sup>1</sup> indicating lost time due to accidents and by records of repeated repairs on various pieces of equipment.<sup>2</sup>

The existing programs placed the responsibility for training in the hands of the supervisors. Due to many factors, supervisors were unable to perform this function as satisfactorily as they would have liked. To fill the need for assistance in instructing new student

<sup>&</sup>lt;sup>1</sup>Michigan State University's Occupational Accident Report, 1969-May, 1971.

<sup>&</sup>lt;sup>2</sup>Equipment Maintenance Records: Department of Dormitories and Food Services, Michigan State University, 1968-May, 1971.

employees in proper use and maintenance of equipment, a program of audio-visual aids was developed.

The purpose of this study was twofold: (1) to explore program possibilities for a slide tape library for use in the training of student employees in college and university food services; and (2) to prepare slides and tapes on equipment maintenance incorporating safety and sanitation practices.

The materials developed have been planned, organized, and presented to meet the objectives and needs of the organization and the student employees. Although the materials have been specifically designed for student employees at Michigan State University Food Services, these slides and tapes could be utilized in any food service using similar equipment.

#### ESTABLISHING TRAINING NEEDS

Training is a continuous process which takes place in all organizations, regardless of whether it is planned and organized, or whether it takes place on a trial-and-error basis as individuals train themselves. This trial-and-error basis is considered negative training, but it is still a training process. In contrast, training is positive when it is planned.

Industrial training programs are programs or plans of organizational improvement that attempt to make beneficial changes through modifying or changing employees' knowledge, skills, and attitudes. This should result in better job performance and more job satisfaction.

Interviews with food service managers and supervisors at Michigan State University have indicated much loss of time and money due to accidents and to frequent repair of equipment. This, in turn, might show a need for more efficient training about equipment use and maintenance with emphasis on safety and sanitation.

Instruction and training in the use of equipment is often inadequate due to limitations of time, circumstances, and facilities. A few of the limitations cited

by supervisors suggested some reasons for inadequate training programs: "Don't have time." "Can't afford it, both moneywise and timewise." "They'll only be here a short time." "Can't keep going over and over the same thing all the time." "Not all supervisors train well." "They [student employees] should have learned before they came here because they were doing the same thing before." "It's not worth it to let too many people leave their unit at one time for a training session. The work doesn't get done." These statements are perhaps indicative of the deeper problems.

Considering the problem of time, it was immediately obvious that trainees could not be spared from their units for formal training sessions of any lengthy duration. In the particular food service studied, students worked from four to twenty hours a week on a staggered schedule to allow for adequate coverage on a twenty-meal-a-week operation open sixteen hours a day. The students in need of training and the supervisors available to give the training were not always free at the same time. The alternative to having the students and supervisors available at the same time would be to bring the students in at times other than their work period. This would not only be costly, but also would frequently be impossible because of the students' erratic schedules.

Another factor was the supervisor's placement of the training responsibility in the hierarchy of his other responsibilities. Crisis situations are a commonplace in food services, and usually take precedence over training of personnel. Food not delivered, employee absences, and necessary changes in plans are the most common of these daily emergency situations.

Another problem that was not uncommon was that the supervisor frequently was not adequately informed as he should have been on the operation of given pieces of equipment. A comparable situation existed when the supervisor, though adequately informed on equipment operation, had difficulty in effectively imparting this knowledge or skill to others.

Still another problem occurred when time and supervisors were available, but the facilities to be used were not always conducive for instructional purposes. This was due to the noise, distractions, and interruptions common to the food service area.

Earlier it was indicated that the training program should place emphasis on safety and sanitation. Studies have shown that the accident ratio for food service employees is significantly higher than for employees in other areas of business and industry.<sup>3</sup> The equipment

<sup>&</sup>lt;sup>3</sup>"Food Service Safety Checklist to Locate Hazards," National Safety Council Records.

used in food services is dangerous: extremes of temperatures of different surfaces, sharp exposed edges, and high-powered electrical equipment that can cut, crush, and maim. A more thorough training program should reduce the percentage of accidents.

Sanitation also needs to be emphasized. Many student employees come to a new job inadequately prepared for handling equipment in the most sanitary methods possible. Frequently, it is not even thought to be important. This may also be corrected through a good training program.

It would seem, then, that some form of systematic training and supervision of the student employees in food service is necessary if they are to learn their tasks effectively, efficiently, safely, and with proper awareness of sanitary procedures. This is necessary if the individual employee has been carefully selected and placed. It is even more true if there has not been careful selection or placement. A training program is always needed.

#### ADVANTAGES OF A TRAINING PROGRAM

Increased efficiency is probably the chief benefit of a well-conceived training program. A student employee who has been carefully and thoroughly trained in all the particulars of the job(s) he is expected to perform should have the knowledge and skills to do these tasks well.

Flowing from this heightened ability in task performance are a number of other benefits. One of these might well be increased productivity. This would not immediately be apparent, since a newly trained worker would generally work more slowly than an experienced one. But with repetition, speed would increase and the student employee would be able to produce to an accepted standard in regard to both volume and quality of work. Given proper selection, placement, and training, an efficient employee should produce at the accepted norm and possibly beyond it.

Efficiency also would reduce the number of accidents because it would imply an emphasis on safety as part of proper procedures. Fewer accidents would result in less man-hours lost; this, in turn, would mean greater savings

due to overtime pay when other workers would have to "double up."

Further cost reduction might occur if the equipment were used and maintained properly. Records indicated frequent repair of equipment necessitated by improper handling and use.

Another result of a good training program should be increased awareness and adherence to standards of sanitation. This is of paramount importance with food service equipment. It is dependent, however, upon the proper understanding on the part of each and every employee of the need for high standards of sanitation and of the way to achieve these. This should be accomplished in a good training program.

A further result could be the reduced need for supervision. A new employee in a well developed program works at first under almost constant supervision, but this decreases rapidly as he correctly performs the skills learned and thus gains confidence. Supervision is never totally lacking, but it can be sharply reduced if the employees are trained and skilled.

A final result of a thorough training program by competent supervisors should be increased morale. High morale is often part of the work attitude of an employee who has been given a good orientation to the entire food service operation of which he is a part. This high

morale is also fostered by knowledge in the specific responsibilities and expectations relative to his particular work, and by complete instructions in the specific procedures to perform these tasks competently.

High morale and the accompanying job satisfaction is, in turn, one of the factors in reducing absenteeism and also in slowing the turnover of personnel. The trained employee who sees his work as part of a total operation will have an increased sense of responsibility for it.

These, then, might well be the benefits of a well developed training program: increased efficiency, greater productivity, fewer accidents due to knowledge of safety procedures, higher sanitation levels, reduced need for supervision, higher morale and job responsibility, and reduced absenteeism and labor turnover.

#### PLANNING AND EXECUTING THE TRAINING PROGRAM

Both the management and supervisors of the organization studied have indicated the need for a more thorough training program. They also realized the fact that some of the inadequacies of the present program were based on its structure. Training had heretofore been set up in such a fashion that supervisors were expected to train new student employees in all the details of their various tasks. However, due to factors previously discussed, this method of training appeared to be falling short of departmental objectives. To reinforce on-going training programs an audio-visual instructional program was developed with a focus on efficient and flexible use of space, time, personnel, and resources.

## Audio-Visual Instruction and the Learning Process

The audio-visual field rests on the assumption that people learn primarily from what they perceive and that carefully designed visual experiences can be common experiences and thus influence behavior in a positive way. These experiences appeal to the senses which are the

direct links between the individual and his environment and the avenues of learning.

Experience is perhaps the best avenue of learning. The use of audio-visuals makes this knowledge more meaningful. Students learn through a wide range of experience involving real things--the actual equipment they work with, visual representations of this equipment, and abstract symbols which are often the directions of the supervisor instructing them.

There is now a moving away from the consideration of audio-visuals solely as aids, and instead an emphasis is being placed on their use as the total instructional input. However, application of this concept is more in reference to an increase of knowledge rather than toward the development or training in a skill.

Because food services require training in the skills of equipment use and maintenance, training programs in food services can best utilize audio-visuals as aids, and not as the total instructional program. It is not enough to see and hear directions on how equipment should be used. Correct use and maintenance of equipment is best learned by actually performing the task under adequate supervision. The audio-visual aids, then, will not and should not replace the supervisor, but could supplement and increase his effectiveness.

## Audio-Visual Instruction: An Application

The Sonoscope<sup>4</sup> machine was selected as the most effective media available in the department for which the audio-visual instruction was developed. The Sonoscope combines in one compact unit a synchronized slide projection and cartridge tape; the screen is also built into the unit. This type of machine fits well into a plan which includes optimum use of space, time, and resources. The possibility of changing the tapes and the slides with minimum expense solves the problem of keeping the audio-visuals current.

The Sonoscope facilitates individualized learning since it is not necessary to wait until an entire group is free, but can be utilized by a single employee during a slack work period. The slides and tapes can be used for initial training of new student employees as well as for reinforcement of training already given. They can also be used for the continued up-grading or re-training of present employees.

Because of the nature of a food service system, most training falls in the realm of on-the-job training, a type of instruction which requires no special space and equipment and can be extremely practical. On-the-job

<sup>&</sup>lt;sup>4</sup>Sonoscope Corporation, 4904 - 9th Avenue South, St. Petersburg, Florida, 33707.

training has the advantage of not expecting transfer of training since the employee is taught in the physical and social environment in which he will be performing his new tasks. It allows him to practice what he will be doing after the training period ends.

The use of the Sonoscope slides and tapes supports this type of training.

The slides and tapes that have been prepared have been limited to five to eight minutes, thus insuring that students will not need to be taken from their work area for long periods of time. Instead, the slides and tapes are of sufficiently short duration that slack work periods can be used.

The programs involved lend themselves well to short instructional periods. These include the coffee makers, dishwashers, meat slicers, ovens, milk dispensers, juice dispensers, ice cream makers, steamers, and cookers (See Appendix, page 18). This is not a definitive listing; other areas could be involved.

The objective of this training program is the development of adequate levels of skills on the part of student employees in the food service, enabling them to meet the predetermined standards for their specific jobs. The slides and tapes that have been developed should be used in conjunction with the on-the-job training, thus integrating two methods which have been shown to be more effective in training.

#### CONCLUSION AND RECOMMENDATIONS

A study of the existing food service training programs for student employees in Michigan State University's Department of Dormitories and Food Services revealed several weaknesses. The first deficiency that became obvious was the lack of knowledge about the student employees' records concerning the extent of their employment, their absences, turnover rate, and accident/sickness rates. Another weakness existed in regard to the training of the student employees in the proper use and care of equipment.

This training was the responsibility of the supervisors of the various food services. They were hampered in performing this function as well as they would have liked by several factors which included time, the relative position of training in the hierarchy of their responsibilities, inadequate preparation of supervisors for training, and poor facitilities.

The purpose of this study was to provide assistance to the supervisors in their training program of student employees. It was decided that a program of audio-visual aids would be a means of combining two effective methods

of instruction: on-the-job training and audio-visual media.<sup>5</sup> These aids were created by the development of a Sonoscope slide and tape library on equipment maintenance and use incorporating safety and sanitation practices. The program was designed to supplement, not to replace, the supervisor's responsibility.

The slides and tapes on equipment maintenance incorporating safety and sanitation practices have been prepared. Utilization of the programs was beyond the scope of this project. The author makes the following recommendations.

- 1. Develop a plan of implementation for the program.
- 2. Acquaint all food service managers and supervisors with the available program and the plans for implementation and evaluation.
- 3. Evaluate the effectiveness of the program which has been developed. If effective, investigate the possibility of further development of other areas using audio-visual media.
- 4. Utilize the available resource people from communications and audio-visual if further programs are undertaken.
- 5. Maintain more meaningful records with regard to absences, turnover, accidents and sick time, and employment of students.

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<sup>5</sup>W. A. Wittich and C. F. Schuller, <u>Audio-Visual</u> Materials: Their Nature and Use.

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APPENDIX

## Michigan State University

Department of Dormitories and Food Services

Slides and Tape Programs Available

Developed 1970-71

- 1. Coffee Makers Bunn-O-Matic
- 2. Dishmachines Hobart
- 3. Ice Cream Maker Taylor Freeze
- 4. Juice Dispensers Vitality
- 5. Meat Slicers Hobart
- 6. Milk Dispenser Norris
- 7. Rotary Ovens Fish
- 8. Steamers Steam Chef

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