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ABSTRACT A three-week summer institute was held to provide basic knowledge and skills in the art of teaching for new health occupations teachers involved in training paraprofessionals in the health field. Twenty trainees participated in institute activities designed to prepare them to: select appropriate types and depth of learning experiences (especially for the disadvantaged); necessary for implementing a suggested, or previously developed curriculum; state objectives in behavioral terms; plan lessons effectively; use a number of instructional methods (the lecture, the demonstration, and the lecture-discussion methods); make effective classroom presentations (video-taped microteaching sequences); produce and utilize common types of instructional media; develop professionalism; use measurement and evaluation techniques effectively; and use information retrieval systems such as the Educational Resources Information Center (ERIC). Trainees completed identical 23-item self-rating scales on their teaching ability on the first and last days of the institute; comparison of the mean pre- and postinstitute scores of each trainee showed a significant growth in their perceived teaching abilities. Also, a majority of the responses to a followup institute evaluation form (completed by both trainees and supervisors) were positive. (A 33-item bibliography and an appendix specifying the curriculum of the institute are included.) (SM)			

Final Report

Project No. 8-0460

Grant No. OEG-0-8-08080460-3595(085)

TEACHER EDUCATION INSTITUTE  
FOR NEW HEALTH OCCUPATIONS  
EDUCATION TEACHERS

Lewis D. Holloway

The University of Iowa

Iowa City, Iowa

January 1969

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## SUMMARY

Grant Number: OEG-0-8-0808460-3595 (085)

Title: Teacher Education Institute For  
New Health Occupations Education Teachers

Project Director: Lewis D. Holloway, Assistant Professor  
College of Medicine, The University of Iowa

Institution: The University of Iowa, Iowa City, Iowa

Duration: April 1, 1968 to January 31, 1969

### Purpose and Objectives

Although health occupations education teachers are well prepared in their health specialties few have had a formal preparation for teaching. The purpose of this project was to plan, conduct and evaluate a teacher education institute designed to provide new teachers in this field with some basic knowledge and skills in the art of teaching. The expected results of the institute were an improved job of teaching by the twenty participants and a report on the institute which would serve as a guide to further activities of this type.

The general objectives of the institute were to provide an environment in which the trainees would learn to: (1) make decisions regarding working with students based upon knowledge of the process of learning, (2) write and use objectives stated in behavioral terms, (3) select appropriate type and depth of learning experiences necessary for implementing a suggested or previously developed curriculum, (4) do effective lesson planning, (5) show familiarity with a variety of instructional methods, (6) make effective classroom presentations, (7) show familiarity with a variety of instructional media, and (8) construct valid classroom tests.

### Methods and Procedures

Two experienced health occupations education teachers were hired and consultants were contacted to assist the project director with the instructional program. The activities were planned, brochures and applications were distributed, the participants were selected, and the three week institute was held from July 29, 1968 to August 16, 1968.

A variety of activities including formal classroom presentations, self-instruction, assignments, informal "gab sessions" and micro-teaching were used to accomplish the objectives of the institute.

Each of the previously mentioned objectives was considered as a subject area and appropriate activities were designed to accomplish the objectives. The area entitled The Process of Learning was divided into two sub-areas, General Factors and The Disadvantaged. In addition to the areas designated by the objectives brief sessions were held under the following headings: Introduction, General Discussion Session, Leadership and Professional Development, and Research in Health Occupations Education. Many of the activities in the early part of the institute were designed to prepare the trainees for the area of Classroom Presentations (Micro-teaching). During this part of the institute the trainees had opportunities to put into practice what had been studied earlier and to gain valuable teaching experience with feedback both from a critiquing teacher and viewing themselves in the video-tape replays.

### Evaluation

Among the evaluation instruments used were: a pre- post-institute rating scale, an institute evaluation form, follow-ups by both the trainees and their immediate supervisors, ratings of the trainees' microteaching presentations, and an instructor evaluation.

### Conclusions and Recommendations

From an analysis of the data gathered on the various evaluation instruments it was concluded that the institute was successful in accomplishing the goals which had been established. Also, each of the various aspects of the institute were judged to be successful. A number of constructive criticisms which were made by the trainees and the instructors are reflected in the recommendations to follow.

The major recommendation made is that many such institutes be held throughout the country to serve the needs of health occupations education personnel. Other recommendations of a general nature are that: (1) efforts be made to involve a higher percentage of individuals from health occupations other than nursing, both as instructors and participants; (2) the institute be limited to two weeks; (3) college credit be available to participants; (4) the institute be held during the regular summer school session; (5) additional introductory materials be sent to the participants prior to the institute; and (6) the policy of paying stipends and travel be continued until this type of activity is readily available to all health occupations education personnel.

A number of suggestions were also made to improve instruction in specific subject areas of the institute.

## I. INTRODUCTION

### Problem

Our increasing population, the enactment of health care legislation, and a growing awareness of the need to provide better health care for all have caused a tremendous demand for health workers. It is generally accepted that the professional schools cannot produce enough health workers even though they are enlarging their programs. Increasing the training and use of paramedical or auxiliary personnel is seen as the only feasible answer to meeting this need. Such personnel can be prepared in a much shorter time than professionals. Though limited to supportive activities the technician or assistant can perform many duties formerly done by the professional thereby freeing him to do the more difficult tasks. The use of auxiliary personnel greatly increases the number of patients who can be served.

The length of training for auxiliary workers varies from a few weeks up to three years. Programs of this type are found in hospitals, colleges, local schools, and area vocational schools or community colleges. Due to the intent of the area vocational schools and community colleges to prepare personnel at this level, and their rapid growth throughout the country it is not surprising that such institutions are becoming the leaders in preparing health workers at this level.

The instructional personnel necessary to staff the rapidly increasing number of health occupations programs must come from the ranks of those presently trained in the health field. Though well prepared and experienced in their technical areas these individuals have rarely had preparation in the art of teaching. Such individuals can become good teachers, but with little or no experience in the techniques of teaching they begin under a severe handicap. It may be that the only knowledge of instructional methods and media these teachers have is from their own experiences as students. Being dependent upon their recall of these experiences certainly leaves something to be desired.

Many schools or colleges have orientation programs and/or supervisors assigned to help new instructional personnel, but such assistance is usually quite limited in scope and depth.

Ideally new vocational teachers would receive in-depth preparation in the art of teaching prior to their employment. At present there are very few programs designed to provide such preparation. Also, the trained technical worker is often reluctant to return to school for extensive training at his own expense when he can remain in his area of work as a practitioner, or go into teaching with no further preparation.

## Purpose

This institute, and other similar activities, are a compromise between the ideal and the existing state of affairs in vocational teacher education referred to above. It was felt that, with a concentrated program of selected activities in such areas as teaching techniques, instructional media, and testing, new instructors would be much better prepared to serve in their teaching capacity.

More specifically, the purpose of the institute was to provide an environment in which new teachers in the health occupations education field could achieve the goals listed in the following section.

## Objectives

The objectives stated in the original proposal were expanded and detailed prior to beginning the institute. These general objectives, shown below, provided the general guides for each of the major areas of the institute. Specific objectives for each area were developed and used as was deemed appropriate.

1. Trainee makes decisions regarding working with students based upon knowledge of the process of learning.
  - a. Demonstrates an awareness of the general factors of learning in preparing for, and making classroom presentations.
  - b. Indicates knowledge of the special problems which affect the learning process of disadvantaged students.
2. Trainee writes and uses objectives stated in behavioral terms.
  - a. Indicates an awareness of the desirability of using stated objectives.
  - b. States objectives in behavioral terms.
  - c. Uses objectives as a guide throughout the educational process.
3. Trainee selects appropriate type and depth of learning experiences necessary for implementing a suggested, or previously developed, curriculum.
  - a. Chooses content based upon the goals of the program and the particular unit being studied.
  - b. Systematically analyzes a given subject area and breaks it down into specific blocks of time.
4. Trainee does effective lesson planning.
  - a. Specifies type of information desirable for inclusion in lesson plans.
  - b. Indicates knowledge of several possible formats for lesson plans.
  - c. Produces lesson plans appropriate for a particular task.

5. Trainee shows familiarity with a variety of instructional methods.
  - a. Selects instructional method appropriate to the content and type of learning behavior desired.
  - b. Demonstrates ability to use selected instructional methods.
6. Trainee makes effective classroom presentations.
  - a. Demonstrates confidence in making presentations.
  - b. Speaks effectively.
  - c. Develops and maintains student interest.
  - d. Covers material adequately.
7. Trainee shows familiarity with a variety of instructional media and is proficient in producing and using the common types.
  - a. Indicates knowledge of available instructional media and their use.
  - b. Demonstrates ability to produce and use common media.
8. Trainee constructs valid classroom tests.
  - a. Shows consideration has been given to all objectives and content in preparing tests.
  - b. Uses appropriate types of questions.
  - c. Writes questions free from gross errors as measured by the instructors.

#### The Institute

The project involved planning, holding, and evaluating a three week teacher education institute on the campus of The University of Iowa. Applications were solicited from individuals who were relatively new to teaching in the area of health occupations education. Twenty trainees were selected and brought to the University where they resided and participated in the activities of the institute. Subsistence stipends and travel allotments were available for the trainees. The institute was held from July 29, 1968, to August 16, 1968. The trainees participated in a variety of activities designed to facilitate achieving the objectives previously stated.

## II. METHODS & PROCEDURES

### Planning

#### Selection of the Participants

Brochures and applications (See Appendix A) were sent to a variety of individuals for distribution throughout the nation. Included in these mailings were the State Directors for Vocational and Technical Education, Directors of the Research Coordinating Units in each of the states, Supervisors of Health Occupations Education, and the Regional Project Officers for Health Occupations Education. The institute also received publicity through releases which went out from the U.S. Office of Education to Research Coordinating Units throughout the United States. Through the brochure applicants were provided information relative to the purpose and objectives of the institute as well as the availability of subsistence stipends and partial reimbursement of transportation costs. Following establishment of the actual transportation costs, individuals were reimbursed at a rate of 93 percent of a round trip fare from their home to Iowa City, Iowa.

The principal investigator made the decision as to which applicants were accepted. The following criteria, listed in the approximate order of importance, were used in choosing between the applicants.

1. Extent of preparation in the art of teaching.
2. Amount of previous teaching experience.
3. Type of program. (An effort was made to include instructors from a variety of types of programs).
4. Geographic location. (A wide geographic distribution was deemed advisable).
5. Level of program. An effort was made to have the participants represent both secondary and post-secondary level programs.
6. Age of program. (Individuals who were entering new programs where assistance from other experienced teachers was not available were given some preference).

Using the above criteria the director sorted the applications giving prime consideration to those with little or no preparation and experience in teaching. Consideration was also given to the other criteria indicated above. Forty (40) applications were received, but a rather large number of them were from individuals with either extensive preparation in the area of education and/or they had taught for several years. It was felt that there would have been a much larger number of

applications had it been possible to send the brochures out earlier, but the notification of the grant award was not received at the University of Iowa until April 25, 1968. Following this date it was necessary to have the brochures and applications printed so they were not distributed until the middle of May, 1968. This allowed only one month until applications had to be returned.

Several of the individuals who were accepted canceled out prior to the opening of the institute and were replaced from the alternates available.

A list of the participants which includes the type of program in which they were teaching and its location can be found in Appendix B. Also included in Appendix B is a profile of the trainees which provides general descriptive information on the group.

#### General Organization and Management

Along with the letter informing the applicants of their selection to participate in the institute they were provided forms to use in reserving dormitory housing and to request payment of the \$75.00 per week stipend. They were also sent materials from the University business office relative to their transportation. Each participant was sent a copy of Preparing Instructional Objectives by Robert Mager. This paper-back publication was an assignment for them to read prior to attending the institute. Included in one of the mailings was a campus map with the dormitory and classroom buildings marked. Participants were asked to bring any curriculum materials, outlines, objectives and lessons which they had available.

During the time prior to the institute contacts were made with various departments within the University to arrange for many of the activities. Consultants were contacted relative to their activities and presentations.

#### Instruction

In addition to the director, whose background was in the area of education, two experienced health occupations education teachers were hired as instructors for the institute. Several on-campus consultants were of great assistance in making selected presentations as well as in providing consultive assistance to the instructional staff. For names and positions of the staff and consultants see Appendix C.

#### Activities of the Institute

The institute was comprised of a wide variety of activities. Included were formal classroom presentations, informal "gab sessions", individualized instruction, assignments and micro-teaching presentations.

A program of the institute activities is presented in Appendix D. The remaining portion of this section presents an overview of the various activities.

A large number of handout materials were prepared and distributed throughout the term of the institute. The titles of these materials are listed in Appendix E.

### Introduction, Welcome, and Orientation

The first day of the institute opened with registration and informal coffee hour. The trainees were provided with identification badges, a list of their fellow trainees, and a package of materials from the local Chamber of Commerce which served to introduce them to The University of Iowa and the Iowa City area.

The instructors and secretarial staff were introduced with brief background information provided. The trainees then individually gave their names, the type of program in which they were employed and its location.

Two special guests welcomed the group. The first of these, Dr. John MacQueen, Professor, College of Medicine and Associate Dean, Community Programs, Division of Medical Affairs, The University of Iowa, welcomed the group on behalf of the University. He spoke briefly and gave an interesting example of the importance of preparing auxiliary health personnel.

Miss Elizabeth Kerr, Director, Program in Health Occupations Education, Division of Medical Affairs, The University of Iowa, and State Consultant for Health Occupations Education, Vocational Education Branch, Department of Public Instruction, was next to welcome the group. She also explained in some detail why the Program in Health Occupations Education at The University of Iowa was an appropriate agency to be holding such an institute. She described the activities of this department and her role as State Consultant for Health Occupations Education. The importance of the rapidly growing field of health occupations education at the vocational and technical level was further emphasized.

The trainees were given some indication as to why the institute was developed and the objectives of the institute were discussed. It was indicated that the goals were rather ambitious for a three week institute, but that it was felt an attempt should be made to provide the participants with something on numerous areas rather than to study one or two areas in depth.

Several routine operational procedures were discussed such as: the institute agenda, procedures for obtaining coffee, parking, locating facilities on the campus and procedures for using the secretarial

services. The trainees completed a self-rating scale which will be discussed in more detail in the chapter on evaluation. On the first evening a picnic was held which gave an opportunity for the trainees and the staff to become better acquainted.

Although not indicated on the program of activities (Appendix D), it was periodically necessary to spend a few minutes discussing routine business matters with the trainees.

### The Process of Learning

General Factors. In this first segment on the process of learning, the goal was for the trainees to become aware of how people learn and to develop an understanding of a variety of general concepts which facilitate or hinder the learning process.

To set the stage for this discussion the trainees were asked to read the Poor Scholar's Soliloquy, a two page paper on the problems of a teen-age youth whose school experiences seem to have no relationship to his goals and interests. The lack of consideration in this story to such factors as individual differences, motivation, transfer, and student-teacher rapport was pointed out.

Following the above introduction the physiological process of learning involving sensory stimulation and the central nervous system was considered. A brief presentation was made on general learning theories. The author expressed his views on the learning process and discussed the neuropsychological theory of D. O. Hebb. A paper on this theory and one entitled Psychophysiology in Education were distributed.

The first of the general concepts affecting learning which was explored was that of individual differences. Hereditary and environmental factors as well as the process of maturation were discussed and several studies in these areas were cited. A number of factors which affect readiness were examined. Reference was made to physiological drives as well as the needs and desires of individuals. Motivation was referred to as primarily an intrinsic factor which could be stimulated best by relating learning to the interests of the students. The effect which attitudes can have on the learner was explored as was the origin of attitudes and the problems involved in changing them. Suggestions were given as to what the teacher can do to assist the students to become motivated. Transfer of learning as well as teacher-student rapport were defined and discussed.

Much of what had been considered previously in this section was drawn together in a discussion on teaching for permanent and meaningful learning. A list of factors which affect retention was presented which included meaningfulness based upon background, overlearning, retroactive and proactive inhibition, and emotions. The areas of concept learning and problem solving were examined. A number of specific suggestions

were made which included assignment making, providing a sequence of activities, selection of teaching methods, proper placement and function of review, and testing.

The Disadvantaged. A presentation on the disadvantaged was made by Dr. Paul Retish, The College of Education, The University of Iowa. Dr. Retish has not only studied this subject extensively and done research in the area but he also grew up as a minority group member in New York City.

Reference was made to a variety of terms, such as culturally deprived and the disadvantaged. The term disadvantaged which is the most generally accepted was defined as well as possible. The general problems of the disadvantaged, primarily those of Negro youths, were discussed in some depth, with particular concern being given to the educational problems of such individuals. One problem which was examined in some depth was the inability of teachers with a middle class background to communicate with this group.

The need of the disadvantaged to receive immediate satisfaction was discussed at some length, as was the problem of changing attitudes regarding the disadvantaged. A bibliography of references which included many of the studies done in this area was presented. As could be expected, Dr. Retish had no "pat" answers on how to solve the problems of the disadvantaged, though he made several suggestions on how we might approach some of them.

#### Instructional Objectives

Objectives were defined and their uses for both instructors and students were discussed. Various classifications of objectives such as: teacher-centered, subject matter-centered, behavioral-centered and learner-centered were analyzed.

A copy of Preparing Instructional Objectives by Robert F. Mager, had been mailed to each trainee so that they might become somewhat familiar with objectives stated in behavioral terms prior to the institute. Mager's book was reviewed with particular emphasis on the steps in writing behavioral objectives and examples of objectives written in this form were presented. Objectives which had been written in other than behavioral terms were appropriately modified by the trainees under the direction of the instructor. The trainees were then divided into three groups and an instructor assisted them in writing objectives for a selected topic. Upon returning to the large group all objectives were reviewed and discussed.

As the next step all trainees were asked to write objectives for some program, course, or unit they would be teaching. The instructor reviewed and discussed the written objectives with each trainee.

It was also suggested that each participant write objectives in behavioral terms for the micro-teaching presentations which they were to make later in the institute.

### Selecting Course Content and Learning Experiences

This session began with a presentation of how knowledge and skills are generally compartmentalized into subject areas, courses, units and even further subdivisions such as lessons. These divisions are deemed necessary in order to provide an organizational structure to teaching. It was stressed that the student should be able to understand the relationships which exist between and among these segments. If the students are having learning difficulties it may be that the structure is not appropriate for the particular area or for the students involved. An example was given of a common organizational structure and a possible new approach was suggested. It was indicated that some schools are experimenting with new ways of blocking subject matter in hope that they might help students to better understand over-all relationships. It was suggested that the students be involved in planning and evaluating committees.

Several general education approaches to curriculum design were considered as possibly having some use in developing curricula in health occupations education. The merits of core offerings which would include common learnings from a variety of health occupations curricula were explored. It was also indicated that in some cases content from a combination of subjects can be brought together, as in an integrated science class. Such a course includes those aspects of physics, chemistry, and biology, which are pertinent to the particular health occupation being studied.

An undifferentiated curriculum in which the entire program is considered to be one subject was discussed. This is a problem solving and application type of program. Selected problems are posed and the students are expected, under the direction of the instructor, to learn the necessary knowledge and skills through solving these problems.

Among the factors which were recommended for consideration in selecting course content and learning experiences were: (1) respective philosophies of the school, the vocational-technical division, and the particular program; (2) students' needs and interests; (3) needs of contemporary society; (4) composition of the faculty and administration; (5) positions taken by the various health agencies, professional organizations and licensing bureaus; and (6) viewpoints of authorities in the field.

The trainees were told that selecting content and the development of learning experiences should be an integral part of the planning process and tie very closely with the writing of behavioral objectives. The need to cover the selection of content as a separate area is determined by the extent to which objectives have been written. The instructor used a handout sheet which had examples of general and specific objectives. When objectives are written in rather broad terms it was stated that it is best to compile course content or at least course outlines. In some of the newer approaches, such as with programmed instruction, behavioral objectives are written for every activity in considerable detail and the course content becomes an integral part of these objectives.

Some guides for selecting the type and depth of content and learning experiences were discussed. It was suggested that learnings should be satisfying, should offer opportunities for students to practice the behavior that is expected, and that the desired reaction should be within the range of the students' possibilities.

Ascertaining the depth of knowledge and skills to be studied is always difficult. It was indicated that in health occupations education safe performance of the worker should be of primary consideration. The trainees were asked to keep in mind at all times the general functions and role of the graduate.

The advisability of planning and establishing criteria for organization and curriculum development was recommended. A system was suggested which called for content and learning experiences to meet the following criteria: (1) continuity -- having successive experiences; (2) sequence -- following an order such that experiences become progressively broader and deeper; and (3) integration -- experiences should be designed such that the knowledge gained will have use from one subject to the next. As an aid to organizing content it was suggested that there might well be organizing elements such as concepts or principles, values or attitudes, and skills that would run through the various sections of the unit of instruction which can be used to provide a desirable integration or theme through the entire unit. Suggestions were also given on deciding the sizes or types of learning experience blocks.

### Lesson Planning

The objective of this activity was to improve the trainees' ability to do lesson planning. Achievement of the objective was to be shown by their awareness of the type of information desirable for inclusion in lesson plans, a knowledge of several possible formats and the actual production of lesson plans appropriate for their particular needs.

It was indicated that the main purposes of planning lessons were to provide for organization, and thereby the improvement of instruction, and to provide a substitute instructor with a guide to the topics to be covered.

The trainees generated a list of those things they felt were essential for inclusion in a good lesson plan. It was the consensus of the group that other than the title, time and objectives coming at the beginning there was no need to follow any certain organizational order in a lesson plan. There were some differences of opinion as to how much detail should be included in the presentation portion of a lesson plan. The suggested guidelines which were excerpted from several authors for distribution also showed variations which ranged from a rough course outline of the material to be covered to a detailed script.

The group felt that there could be selected items from the lesson plan which one might want to distribute to the students, but it was felt these should be developed as separate handouts.

As an assignment the trainees were asked to produce lesson plans for each of their micro-teaching presentations.

### Instructional Media

A lecture-demonstration of the types and uses of instructional media was given by Mr. Robert Long of the Audiovisual Center, University of Iowa and Mr. Cal Mether of the University Lab School of the University of Iowa. The topics of communication theory, the preparation and use of transparencies for the overhead projector, the use of tape recorders, movies, film strips and slides were discussed in some detail and examples were shown.

Following the general presentation the trainees were divided into groups and rotated through three different sessions on instructional media. The purpose of the small group work was to gain practical experience in preparing and using the various materials and machines.

In the first room a display of printed materials, models, mock-ups, moulages, charts, textbooks and course outlines were available for the trainees' use. The use of a ditto machine and a thermofax duplicator were demonstrated. During another session the trainees learned to thread and operate 16 mm film projectors, 8 mm single concept films, filmstrips, and slide projectors. Overhead projectors and the production of transparencies were explored in more detail in the third small group session. The process by which transparencies can be lifted from certain colored prints was also shown.

Numerous materials in the health occupations field were made available to the trainees for review during the remainder of the institute. They were encouraged to write the suppliers for copies or information on those which they felt would be beneficial to them.

## Instructional Methods

Lecture Method. Although the long range goal of this section was to prepare the trainees to use this method in their classrooms there was also the short term goal of preparing them for their first micro-teaching presentation.

Those situations where the lecture method is most appropriate were indicated and there was also some discussion regarding the misuse of this method. Several suggestions were made as to why this method was not appropriate for many activities.

Planning for the lecture method was discussed and suggestions were made on ways to improve one's effectiveness.

As a tool for discussion the instructor went through the evaluation sheet which was to be used for rating the trainees during their micro-teaching presentations (See Appendix F). Although the evaluation sheet was prepared for evaluating all types of presentations those sections of particular concern to the lecture method were stressed.

Following this presentation the trainees were to prepare and make a three to five minute micro-teaching presentation using the lecture method.

Demonstration Method. The intent of this section on the demonstration method was to show the trainees the advantages of this method of teaching, the type of learning situations for which it is appropriate, the type of training aids which are effective, the preparation necessary and some suggested steps to consider in giving a demonstration.

This session was introduced by a poorly given demonstration and completed by repeating the demonstration correctly. The trainees were asked to comment on the effectiveness of each demonstration, and considerable discussion was generated.

Those learning situations most effectively taught by the demonstration method such as: laboratory work, new procedures, and patient care were considered in some depth. A series of steps were considered for giving a demonstration, i.e., need for planning, preparing the group, providing a good view for all, making essential comments during the demonstration, reviewing principles and steps by discussion, and student practice. Some training aids which can be effectively used in a demonstration were shown and discussed.

The participants were asked to prepare and give a three to five minute micro-teaching presentation using the demonstration method.

Lecture-Discussion and Other Methods. The objectives of this portion of the institute was to acquaint the trainees with the advantages of the lecture-discussion method of teaching, identifying the procedures used in this method, suggest some techniques for good questioning and to make them aware of several other instructional methods.

It was suggested that the choosing of a teaching method for a particular topic should depend upon a variety of factors such as: subject to be taught, students, traits of the instructor, facilities, and amount of time available. It was stated that studies have shown that the personality of the instructor is generally more important than the method used, but it is felt that all of the previously mentioned factors should certainly be considered in deciding on an instructional method for a particular presentation.

The advantages and disadvantages of the lecture method and the discussion method were considered in an effort to point out the desirability of the combined form.

The lecture-discussion method, as indicated in this presentation, is primarily one in which the instructor may at times present material much as in the lecture, but one in which he also uses extensive questioning. The questioning is not only to ascertain whether the students are learning but also to draw from them past experiences which help to fix the learning in their mind. It was indicated that many instructors may use this method and refer to it as a lecture method. The statement was made that this method can contain the best of both the lecture and the discussion methods. Several disadvantages were also considered.

The process of questioning was considered in some depth. It was indicated that the primary goal of asking questions was to improve learning and a list of reasons for asking questions was generated by the group. Questioning techniques were considered and a series of suggestions were given for improved questioning. There was some discussion about matching the question to the individual and the handling of the problem situations. The need for the instructor to control the lecture-discussion was mentioned because of time limitations. It was also stated that it is very important that the instructor keep in mind at all times the objectives of his presentation.

As this was to be the third and final method which the trainees would use in their micro-teaching presentations, a brief discussion of some other teaching methods was conducted. Included in this discussion were the lecture-demonstration, group discussion, the case study, role playing, clinical activities, field trips, teaching machines and programmed instruction. A reference paper was distributed relative to teaching machines and programmed instruction.

The presentation was completed by a review in the form of a quiz and a discussion on the micro-teaching presentation the trainees were to make using the lecture-discussion method.

### Classroom Presentations (Micro-teaching)

Micro-teaching is a teacher education technique which is becoming increasingly popular. In this activity the trainee gives a short presentation followed by immediate evaluation. The lesson is then presented again with a conscious effort being made to correct the faults noted in the first performance. As a part of the evaluation the presentation is often recorded on audio or video tape. All micro-teaching presentations during this institute were recorded on video tape.

So that the trainees would become familiar with the cameras and recording equipment each instructor was taped during a classroom presentation and the trainees were taped during one of the small group sessions on instructional media. These video tapes were then shown to the group of trainees accompanied by a discussion of the methods and purposes of micro-teaching and how it would be used for their presentations.

The trainees were divided into three groups and a rotation devised such that each trainee would be critiqued by a different instructor for each of their three presentations. A time schedule for the presentations was established and posted (See Appendix F). Each participant prepared three lessons which were taught and retaught. The three methods of teaching were lecture, demonstration and lecture-discussion.

"Students" were hired to participate in the classroom. One group of three students was used for the "teach" and another group for the "reteach."

Presentations were scheduled in ten minute intervals which allowed sufficient time for the trainees to set up, make their presentations and move out. During the third presentation, using the lecture-discussion method, the trainees were allowed to use almost the full ten minutes for their presentation. The video tape log sheet is shown in Appendix F.

Immediately after each "teach" presentation the critiquing instructor reviewed the evaluation sheet with the trainee (See Appendix F). The following morning the critiquing instructor and the trainee reviewed the video tape of the trainee's presentation. The video tapes of the "reteach" sessions were reviewed with the entire group of trainees present so that all might benefit from viewing the presentations of the other trainees.

Throughout the institute, but particularly for the micro-teaching presentations, the trainees were encouraged to develop materials which they might be able to use in their teaching positions. Examples of the type of materials developed are presented in Appendix G.

## Measurement and Evaluation

A somewhat different approach was taken in presenting the material for this section. The three lessons on measurement and evaluation were "packaged." Because of the limited time for formal presentations during the institute and the awareness that there would be individual free time it was felt that this would be an appropriate method. Also, this type of activity was deemed consistent with the movement to use audio-tutorial systems in many educational areas.

The "package" for each section was composed of an audio tape of from 45 to 60 minutes in length, a lesson plan containing an outline of the material covered, handouts, and other appropriate materials. Trainees were also provided a set of written instructions on how to proceed with the lessons.

Although it is customary with the audio-tutorial method to provide a laboratory so that each trainee may work individually and not interfere with others, such was not available for this institute. Therefore, the trainees were encouraged to work out their own systems, using available space. It was observed that there was quite a variance in work habits from individuals working alone, in groups of two or three, and in at least one instance as many as six were noted working together. There were no negative comments in the evaluations regarding the size of the groups or their inability to follow at the speed of the group, so it is assumed that this was not a detracting factor.

Three copies of the tape for the first topic and two for each of the others were available so there was little, if any, difficulty in having tapes when they wanted them. Three tape recorders were provided for use in listening to the tapes.

Lesson one was titled "Evaluation in Teaching: An Introduction." The objectives of this topic were to acquaint the trainees with common terms used in evaluation, the characteristics which are desired in evaluation procedures, the role evaluation plays in education, and preparatory procedures which are of assistance in developing valid tests. It was suggested that the trainees follow along the outline of the lesson while listening to the tape and they were encouraged to take notes. A series of handout sheets were referred to at appropriate times in the presentation. An abbreviated outline of the course content for this topic is indicated below.

- I. Definition of evaluation
- II. Role of evaluation
- III. Classification of evaluation procedures
- IV. Characteristics desired in evaluation procedures
  - A. Validity
  - B. Reliability
  - C. Usability

- V. Defining objectives for evaluation purposes
- VI. Specifying content
- VII. Table of Specifications
- VIII. General principles of evaluation

The second subject covered in this manner was entitled "Constructing Classroom Tests." The basic objective was for the trainees to improve their ability to construct valid classroom tests. The handout sheets for this subject were primarily made up of poorly stated questions. Questions were selected so that they illustrated the type of errors commonly made by teachers. Shown below is an outline of the content of this section.

- I. Preliminary considerations
- II. General principles of test construction
- III. Types of classroom tests
- IV. Constructing and scoring essay tests
- V. Constructing objective tests
  - A. Use of objective tests
  - B. Short answer items
  - C. Alternative-response (True-False)
  - D. Matching
  - E. Multiple-choice
  - F. The interpretive exercise

After completing the tape the participants were asked to write questions similar to the types covered in the lesson and submit them for constructive criticism by the instructor. If possible, the questions written were to be on the material covered in their micro-teaching presentations.

"Supplemental Evaluation Activities" was the title of the third and final topic in the area on measurement and evaluation. This section was designed to cover those areas of classroom testing and evaluation other than preparing for and actually writing test items. The following topics were covered in this lesson:

- I. Preparation
  - A. Reviewing and editing items
  - B. Arranging items
  - C. Directions
- II. Administration and scoring
  - A. Administering the test
  - B. Scoring
    - 1. Marking
    - 2. Correcting for guessing
- III. Grade assignment
  - A. Systems
    - 1. Percentage
    - 2. The normal curve
    - 3. "On-the-curve"

- B. The procedure for grading "on-the-curve"
  - 1. Tabulating
  - 2. Grouping
  - 3. Assigning grades
- C. Combining grades
  - 1. Letter grades
  - 2. Point system
- IV. Appraising (Item analysis)
  - A. Purpose
  - B. Procedure
- V. Building a test file

In the section on grading the trainees were provided a series of four sets of test scores. Using these scores participants were given practice in tabulating, assigning grades to each test and assigning over-all grades for the four tests.

#### General Discussion Session

Toward the end of the institute a general discussion session was held to explore a variety of questions which the trainees felt were important. These were topics pertaining to health occupations education, but which were not included as a part of the formal institute activities. A lively discussion was held covering the following topics:

1. Student screening methods
2. Counseling students
3. Cheating
4. Students' appearance (grooming) in clinical area
5. Curriculum in other schools
6. Suggested texts
7. State guidelines for the performance of students
8. Ratio of instructors to students in clinical areas
9. Salaries of instructors as compared to hospital wages
10. Affiliations: psychiatric, nursing homes, mental retardation programs, etc.
11. Social events
12. Follow-up methods

#### Leadership and Professional Development

The presentation on leadership and professional development was made by Miss Elizabeth E. Kerr, Director, Program in Health Occupations Education, The University of Iowa. The trainees were challenged not to underestimate their importance to the entire health occupations education picture even if they were not presently in a leadership position. They were encouraged to keep abreast of the over-all activities within the field and to continually further their education.

It was suggested that the trainees might better understand their role in the educational system if they were aware of the various organizational structures and the inter-relationships between these organizations. The organizational structure of the Department of Health, Education and Welfare was presented and discussed. Similarly the various health and educational associations which relate to health occupations education were considered. The various ways in which these organizations support, regulate, and generally serve the field were presented.

As the largest group of trainees were nurses there was considerable discussion relative to the present state of nursing education at all levels. Since many were teaching in practical nursing programs there was particular concern about this level of nursing. The vocational-technical approach being used in the Associate Degree Nursing Programs in Iowa was presented and discussed.

### Tours

A number of the trainees expressed a desire to tour the University Hospitals on the campus of the University of Iowa. Arrangements were made and Miss Jeanne Hatch, Nursing Service Supervisor conducted the group on an excellent tour of these facilities. As the University Hospitals are primarily a teaching institution the trainees had opportunities to see a variety of activities not seen in most hospitals.

One of the trainees was an employee of the Iowa Security Medical Facility. This organization was preparing to move into new quarters near Iowa City so a tour of this facility was arranged with Mr. Dennis Flately, Director, Personnel and Training. Although not yet completed the trainees had an opportunity to see and hear what types of things are being done in the way of nursing care and rehabilitation for those individuals who are mentally or physically ill and confined in a maximum security institution.

### Research in Health Occupations Education

In a short session on the final day of the institute, the subject of research in health occupations education was considered. The major portion of this presentation was on the Educational Resource Information Center (ERIC) system. The presentation followed materials prepared for such a session by the Center for Research and Leadership Development in Vocational and Technical Education, The Ohio State University.

The purposes of the retrieval system were presented and the relationship between the various clearing houses and the central ERIC system was explained.

The general publication of the central ERIC system entitled Research in Education was shown and described as were the two

publications from the vocational and technical clearing house, Abstracts of Research and Related Materials in Vocational and Technical Education (ARM) and Abstracts of Instructional Materials in Vocational and Technical Education (AIM). Included in this discussion was information as to what type of materials are being solicited and how individuals might submit copy to the retrieval system.

The publication Review and Synthesis of Research in Health Occupations Education which was soon to be available from the Center for Research and Leadership in Vocational and Technical Education was discussed. The procedure for obtaining copies and the way in which this publication was being developed was presented.

A general discussion on the state of research in the field of health occupations education completed this section.

### Evaluation Procedures

A variety of evaluation procedures were conducted in an effort to ascertain the success, or failure, of the institute. Because of the nature of this project purely objective measures were not applicable. Although subjective measures were used every possible effort was made to standardize ratings and the handling of the results.

It was felt that the success of the institute should be measured primarily on how well the trainees achieved the behaviors stated in the objectives of the institute as specified in Chapter I. Examination of the various evaluation instruments presented in Appendix H shows that particular attention has been placed on the objectives of the institute.

On the first morning of the institute the participants were asked to complete the self-rating scale as a measure of how well they perceived their abilities in the various areas. They were asked to complete an identical scale on the last day of the institute and a comparison of these two ratings was used as one measure in evaluating the project. On the final day in addition to the rating scale the trainees were asked to complete an open-ended general institute evaluation and they were encouraged to make frank comments on the institute. The instructors also completed the institute evaluation.

Each trainee was asked to complete an instructor evaluation rating for each of the three instructors. These ratings provided some indication of the trainees' attitude toward the institute and considerable help to the instructors in pointing out their individual strengths and weaknesses.

On November 1, 1968, 11 weeks following the close of the institute a follow-up evaluation form was sent to each participant to assess their feelings as to how well the activities of the institute had

helped them to do a better job of teaching. At this same time the immediate supervisor of each participant was surveyed as to any noticeable behavior changes they could report or feedback they had received.

The results of these evaluation measures are reported in the following chapter.

### III. EVALUATION

In reviewing all of the materials which were gathered to evaluate the Teacher Education Institute For New Health Occupations Education Teachers it is obvious that the project was a success and did, within acceptable standards, meet the objectives established. It will be the purpose of this chapter to show evidence to support the preceding statement and to point out the strong and weak points of the institute. The evidence to be presented will be that which was gathered specifically for this purpose, but the author would take this opportunity to state that there were many favorable reactions from the trainees during and at the end of the institute and in numerous letters and notes which the author has received since the completion of the institute. Several participants indicated that they have shared what they learned with other health occupations education personnel both locally and at state meetings

Copies of all of the evaluation instruments can be seen in Appendix H. For those evaluation instruments administered during the institute data are available on all of the trainees. Seventeen of the 20 Trainee Follow-up questionnaires, or 85%, were returned. For the Supervisor Follow-up questionnaire the response was 18 of 20 for a 90% return.

#### The Institute in General

##### Value of the Institute

On the Institute Evaluation form the participants were asked to indicate whether they felt the activities of the institute had succeeded in accomplishing the goals specified. Nineteen participants responded yes and one uncertain. The uncertain respondent stated that there had been too much emphasis placed on the field of nursing. When asked whether they would recommend that similar institutes be held and whether they would advise others to attend all 20 responded affirmatively. A similar question on the Supervisor Follow-up brought positive reactions from 17 of the 18 supervisors who returned the questionnaire. One supervisor felt he could not make such a decision at the time the questionnaire was completed.

On the follow-up questionnaires completed by both the trainees and their immediate supervisors there were many positive reactions to the institute. The majority of the participants felt the institute had made a significant effect on their teaching. A number of the supervisors verified this in their comments on the questionnaires they completed. due to numerous problems, such as the instructor being new or the supervisor feeling inadequate to react, many of the supervisors did not respond to the part of the follow-up questionnaire having to do with observed changes.

Several trainees stated that they felt the activities of the institute assisted them in approaching their teaching in a more organized fashion than might otherwise have been the case. There were also many positive comments relative to the confidence which they felt the institute had given them. There were numerous comments such as: "good planning," "of great worth," "thank you," and "instructors were most helpful."

On the Self-rating Scale there were 23 items to which each trainee was asked to respond as a measure of how well they felt they were prepared in the various subject areas covered in the institute. Presented in Table 1 is a comparison of the mean scores of each trainee on the pre-institute and post-institute rating scale. The mean score for the 23 items provides a picture of how each trainee rated himself on the five point scale. The mean of the mean scores on the pre-institute rating was 2.46 as compared with 3.95 on the post-institute scale. A t test for the difference between means showed that the difference of 1.49 between the means was significant at the .001 level. It is recognized that these measures do not indicate what the trainees actually knew, but it is felt that such a change in how well they felt they were prepared in the various areas is of some consequence.

#### Criticisms of the Institute

The criticisms which were made seemed to be for constructive purposes with no responses noted which would indicate that any of the participants were strongly negative regarding the institute as a whole.

Two trainees indicated they would have preferred to have had more information on micro-teaching prior to the institute. There were several criticisms that most of the examples and references given were from the field of nursing. Other criticisms and suggestions are shown under the specific topics for which they were appropriate.

Credit. Fifteen of the trainees felt that college credit should have been available for the institute and two were uncertain. All three instructors felt that credit should be given for future institutes.

Facilities. The trainees' reaction to the adequacy of the facilities was positive. Seventeen stated that the dormitory facilities were excellent. There were several comments made about inconveniences due to the institute extending beyond the University summer session which meant that certain facilities were closed.

TABLE 1  
MEAN SCORES ON THE INSTITUTE SELF-RATING SCALE  
BY TRAINEES

Trainees	Pre-institute Mean	Post-institute Mean	Amount of Change
1	2.78	4.00	1.22
2	2.78	4.30	1.52
3	2.87	4.13	1.26
4	2.52	3.39	0.87
5	2.78	3.78	1.00
6	3.44	4.74	0.70
7	1.30	3.78	2.48
8	1.61	3.30	1.69
9	2.83	4.26	1.57
10	1.96	4.00	2.04
11	3.09	4.39	1.30
12	2.61	4.48	1.87
13	2.09	3.26	1.17
14	2.74	3.91	1.17
15	3.44	4.48	1.04
16	2.30	4.00	1.70
17	2.30	3.83	1.53
18	2.65	3.39	0.74
19	1.26	3.61	2.35
20	1.91	3.91	2.00
Mean of the means	2.46	3.95	1.49
Standard deviation	.744	.420	.507

t = 12.02    d.f. = 19    P    .001

Length and Time of Year. Approximately half of the trainees felt that three weeks was the proper length of time for the institute while the other half felt that two weeks would have been sufficient. Several trainees indicated they were overwhelmed by the pace of the institute during the first week and that it tapered off and was even a bit slow the last week.

The time of year during which the institute was held was satisfactory to 17 of the 20 participants. If the institute had been held about two weeks earlier the problem indicated under the previous section would have been alleviated.

## Institute Activities

The evaluation of each of the major activities of the institute will be reported as a separate section and will include appropriate information from each of the evaluation tools. Evaluations were made primarily in reference to how well the trainees did in achieving the objectives of the institute.

### The Process of Learning

The differences between the mean scores on the Self-rating Scale for this subject area were 1.40 and 1.45 (see Table 2). This represents a substantial change on the five point scale between the scores on the pre- and post-institute rating scales. On the Institute Evaluation there were no trainee or instructor reactions to this topic as being the most or least beneficial. As seen in Table 3 the mean score of 3.00 for this subject on the Trainee Follow-up was the lowest of all the areas, but a rating of three was designated as adequate coverage. Comments on both the Trainee Follow-up and the Supervisor Follow-up were mostly positive. Several trainees indicated that there should have been more time spent on this area while one felt that it had been too involved and intellectual.

Several supervisors commented that their participant had shown an increased awareness of the special needs of disadvantaged and problem students following the institute.

It was concluded that there had been satisfactory trainee growth in this subject area, although there is certainly room for improvement. Suggestions will be made in the following chapter on how each area might be improved for future institutes.

### Instructional Objectives

An examination of the mean scores on the Self-rating Scale presented in Table 2 shows that there was as much or more change in this subject area as any other. On the pre-institute rating scale the mean for the desirability of using stated objectives was about average but the ability to state objectives in behavioral terms and the use of objectives throughout the educational process were rated relatively low. The success of this subject area is evidenced by the 1.75 change for the stating of objectives and the 1.90 change in the using of objectives. On the Institute Evaluation a number of the trainees indicated that this subject was the most helpful area covered. There were no reactions to the time spent on this area being excessive or inadequate. On the Trainee Follow-up the instructional objectives area received a mean of 4.47 (see Table 3). This was the highest rating of any of the subject areas on the Trainee Follow-up. Comments on this instrument indicated that the trainees felt they had gained considerable insight into their teaching through the coverage of this area. The supervisors also stated

TABLE 2

MEAN SCORES ON THE INSTITUTE SELF-RATING SCALE  
BY SUBJECT AREA

Objectives by Subject Area*	Pre-institute Mean	Post-institute Mean	Amount of Change
<b>The Process of Learning</b>			
1. How the general factors of learning affect working with students.	2.70	4.10	1.40
2. The special problems which affect the learning process of disadvantaged students.	2.45	3.90	1.45
<b>Instructional Objectives</b>			
3. The desirability of using stated objectives.	3.00	4.40	1.40
4. Stating objectives in behavioral terms.	2.25	4.00	1.75
5. Using objectives as a guide throughout the educational process.	2.40	4.30	1.90
<b>Selecting Course Content and Learning Experiences</b>			
6. Choosing learning experiences based upon objectives.	2.70	3.85	1.15
7. Analyzing a given subject area.	2.20	3.55	1.35
8. Identifying priorities.	2.45	3.35	.90
<b>Lesson Planning</b>			
9. Including appropriate information.	2.90	3.85	0.95
10. Formats for making lesson plans.	2.15	4.10	1.95
11. Writing lesson plans.	2.25	4.10	1.85
<b>Instructional Media</b>			
12. The availability of instructional media and their use.	2.65	4.05	1.40
13. Producing common media	2.30	3.65	1.35
14. Using common media.	2.25	3.70	1.45

TABLE 2 (continued)

Objectives by Subject Area*	Pre-institute Mean	Post-institute Mean	Amount of Change
<b>Instructional Methods</b>			
15. Selecting methods.	2.40	3.85	1.45
16. Using instructional methods.	2.50	3.60	1.10
<b>Classroom Presentations (Micro-teaching)</b>			
17. Confidence in making presentations.	2.70	4.05	1.35
18. Speaking effectively.	2.70	3.80	1.10
19. Developing and maintaining student interest.	3.05	4.05	1.00
20. Covering material adequately.	3.00	3.95	0.95
<b>Measurement and Evaluation</b>			
21. Consideration to all objectives and content.	2.35	3.65	1.30
22. Using appropriate types of questions.	2.35	3.35	1.00
23. Writing valid classroom tests.	2.10	3.20	1.10
Mean of the means	2.51	3.84	1.33

\* The objectives have been shortened to facilitate tabling. The complete statements can be seen on the self-rating scale in Appendix H.

that this was a very important area and that the trainees had already shown marked improvement in the area of instructional objectives.

The author would take this opportunity to state his opinion as to why the section on instructional objectives was of such interest and showed such a great amount of growth. There is currently considerable attention being paid to instructional objectives and many trainees were very motivated to learn more about this area. Also, the programmed text on instructional objectives had been sent to the trainees prior to attending the institute and they had an opportunity to study it in some detail. Another consideration would be that instructional objectives were covered not only as a separate entity within the institute but the need for instructional objectives and their use was stressed throughout the institute. The relationship of instructional objectives to each of the various areas was strongly promoted.

TABLE 3  
MEAN SCORES ON THE TRAINEE FOLLOW-UP  
BY SUBJECT MATTER AREA

Subject Matter Area	Mean Score
The Process of Learning	3.00
Instructional Objectives	4.47
Selecting Learning Experiences	3.59
Lesson Planning	3.59
Instructional Methods	4.23
Instructional Media	4.00
Classroom Presentations (micro-teaching)	4.00
Testing	3.59
Mean of the means	3.81

Selecting Course Content and Learning Experiences

The mean scores on the Self-rating Scale shown in Table 2 indicate that there was change in this subject area but it was somewhat less than the mean growth for all areas. This was confirmed by comments on the Institute Evaluation by some trainees who felt that this was the least helpful subject area. Several indicated the need for more depth and time on selecting course content and learning experiences. Several trainees commented that they thought this was one of the most difficult aspects of teaching. On the Trainee Follow-up evaluation (see Table 3) it was found that the trainees felt that coverage of this area had been slightly better than acceptable, 3.59. Comments on the Trainee Follow-up were varied with some trainees indicating the need for more time needed on this subject and some stating they were confused by this area. The Supervisor Follow-up indicated generally positive reactions to this area.

It was the feeling of the instructors during the planning phase that this would be one of the hardest areas to cover, particularly in such a short period of time. The results of the evaluation procedures verified that this was in fact a difficult area. Although no definite answers were found on how to improve this subject area in covering it another time the breadth of material would be reduced and the remaining topics covered in more depth. The use of more examples would seem to be in order.

### Lesson Planning

As seen by the mean scores on the institute Self-rating Scales presented in Table 2 the trainees responses show considerable growth in this area. Although the change was much less for including appropriate material it is noted that the mean rating for this objective was already relatively high on the pre-institute rating. There were also a large number of trainee reactions on the Institute Evaluation to this subject area being one of the most helpful. The rating of 3.59 on the Trainee Follow-up, Table 3, shows evidence that this area was adequately covered. Comments made on the Trainee Follow-up by several participants indicated that they had found the institute had been of considerable assistance in improving the quality of their lesson planning. The supervisors' reactions to this area were quite varied with several indicating their trainees were doing excellent work while others felt they were not. Some supervisors stated their teachers were going into too much detail in their planning and being too rigidly tied to the plan while others indicated that plans were not detailed enough to be followed by another teacher.

### Instructional Media

The amount of change shown on Table 2 for Instructional Media indicates there was growth in this area. There were strong reactions on the Institute Evaluation with some trainees stating that this was the most helpful subject area while several trainees felt that there had been an attempt to cover too much material in the short time allotted. One trainee also stated that too much time was spent on audiovisual aids other than the overhead projector and transparencies. The mean rating of 4.00 on the Trainee Follow-up (see Table 3) indicates this area was well done. There were many comments made on the Institute Evaluation which praised this subject area. Several supervisors reported on their follow-up that they had been able to see positive results in the production and use of instructional media which they could attribute to the institute.

### Instructional Methods

From observing the self-rating scale means presented in Table 2 it would appear that the trainees' knowledge of instructional methods had increased during the period of the institute. There were only a few comments about this subject area on the Institute Evaluation although one trainee did feel it was the most helpful area. The mean rating of 4.23 on the Trainee Follow-up was the second highest for the subject areas covered, which would indicate the trainees felt the area was quite adequately covered. Comments on the Trainee Follow-up were varied with primarily positive reactions to this area. On the Supervisor Follow-up there were several strong positive reactions indicating that the supervisors had seen appreciable changes in the participants' use of instructional methods.

## Classroom Presentations (Micro-teaching)

The differences between rating scale means presented for this area, in Table 2, show there was change, but the amount of change was less than might be expected considering the results of the other evaluation measures. The preceding can be accounted for by the higher than average mean scores on the pre-institute rating scale for the objectives in this area. Based upon the evidence gathered and the author's awareness of the over-all situation it is felt that the participants rated themselves somewhat high at the beginning of the institute and that following their participation in the micro-teaching experiences they were more critical of themselves. If this was the case there was probably a considerable change in actual behavior which was not measured by these evaluations.

On the Institute Evaluation the area of Classroom Presentations (Micro-teaching) was judged to be the most successful by 12 of the 20 trainees. The three instructors also rated this area as being the most effective of the institute. Many trainees did react negatively to the "reteach" portion of the micro-teaching as being unnecessary or too time consuming. Eighteen trainees stated they had learned their errors from the critique and the video tape review and that they would have preferred to progress right on to the next presentation. The trainees indicated they were able to develop confidence, gain teaching experience, and became aware of their strengths and weaknesses through the micro-teaching presentations. On the Institute Evaluation two instructors stated that well prepared micro-teaching presentations should have been taped and shown to the trainees as an introduction and to show them that a short presentation can be effective. The Trainee Follow-up rating of 4.00 for this area (see Table 3) shows that coverage of the Classroom Presentations area was judged to be well above average. The reactions were mostly positive on the follow-ups, by both the trainees and their supervisors.

During each micro-teaching session the trainee was critiqued by one of the instructors and recorded on video tape. The instructor made his rating on the Micro-Teaching Evaluation sheet (see Appendix H). The mean rating for each presentation was computed and the average ratings for each group are presented in Table 4 by type of presentation and instructor. Examination of these means by instructor shows that Instructor 1 consistently gave the trainees lower ratings, but as the critiquing instructors were rotated this should have had no effect upon the over-all comparative ratings.

An increase in the ratings of the trainees can be seen on both the "teach" and "reteach" sessions in moving from the lecture to the demonstration and then to the lecture-discussion. The presentations were made in the order listed above, so unless the instructors assumed the trainees would improve and so affected the ratings it can be concluded that there was improvement in the quality of the presentations. It is the opinion of the author that there was definitely improvement in the presentations of the large majority of the trainees.

TABLE 4  
MEAN SCORES OF TRAINEES ON THE  
MICRO-TEACHING EVALUATION SHEETS

	No. of Trainees	"Teach"	"Reteach"	Difference
<b>Lecture</b>				
Instructor 1	7	3.06	3.44	0.38
Instructor 2	6	3.82	4.38	0.56
Instructor 3	7	3.57	4.00	0.43
Subtotal	20	3.47	3.92	0.45
<b>Demonstration</b>				
Instructor 1	5*	3.14	3.94	0.80
Instructor 2	7*	4.60	4.76	0.16
Instructor 3	6	4.03	4.45	0.42
Subtotal	18	3.78	4.43	0.65
<b>Lecture-Discussion</b>				
Instructor 1	7	3.51	3.86	0.35
Instructor 2	7	4.41	4.59	0.18
Instructor 3	5*	4.62	4.76	0.14
Subtotal	17	4.13	4.37	0.24

\*Several trainees did not make both "teach" and "reteach" presentation.

There was also an increase in the ratings between the "teach" and "reteach" presentation as seen in the difference column. Several factors were felt to have caused the over-all difference of .24 for the lecture-discussion to be considerably less than that of the other two areas. Because of the involvement of the students in this type of presentation their willingness and ability to respond was a factor. The author, who observed the students for both of these presentations, felt the students used for the "teach" session were much more responsive than those used for the "reteach." As the ratings of the trainees on the "teach" portion of this method were relatively high there was little room for improvement in the scale, and as the "reteach" for this method was very near the end of the institute the trainees may have begun to let down somewhat.

Although this area was highly rated it is felt that it could have been improved considerably through the use of prepared video presentations, another video tape recorder, and considerably more experience on the part of the instructors.

### Measurement and Evaluation

The differences between the scores on Table 2 for the Measurement and Evaluation area show there was change in this area though it was somewhat below the average for all the various subject areas. On the Institute Evaluation five of the trainees indicated that this topic was the most helpful activity and that the topics were excellent. However, two trainees felt that more time should have been spent in classroom discussion and that the audio tapes were too complicated. One trainee indicated that a regular classroom presentation would have been preferred rather than the self-instruction approach, but that the information received through the tapes was better than no information at all. The rating on the Trainee Follow-up of 3.59 (see Table 3) shows that it was felt that coverage of this area was slightly better than average. The trainee comments on the follow-up were also quite varied ranging from very strong positive opinions to some negative reactions to the packaged method of instruction. The supervisors mostly indicated that they had seen marked improvement in the measurement and evaluation area and that the participants indicated they were satisfied with this area. As the instructional packages prepared for this area were quite unsophisticated and most of the trainees had never had experiences of this nature it is not surprising that there was some criticism.

### Additional Topics

The participants were asked, both on the Institute Evaluation and the Follow-up questionnaire, to indicate other topics which they felt would have been of particular help to them. The following is a list of some of the topics which were suggested:

- Use of clinical affiliations.
- Classroom management.
- Interpersonal and group relations.
- Counseling.
- Student selection.
- Aptitude testing and interpretation.
- A larger display of textbooks.
- More varied methods of grading.
- A more complete introduction of each trainee.
- A vocabulary list.
- More buzz sessions.
- More emphasis on students with lower abilities.
- Consideration be given to attitude, appearance, and interrelations of students.

## Correlations

Several variables which were available on the twenty trainees were rank ordered and Spearman rank correlations computed for selected combinations of these variables. It was thought that the correlations might show some interesting results.

As can be seen in Table 4 only one of the correlations has a probability level high enough to accept the independent variable as having any predictability. Although the correlation between the trainees' level of education and their pre-institute rating scale score was accepted as significant it might have been expected to have been even higher. This relationship probably was not greater because the type of education varied considerably among the trainees and did not necessarily prepare them for the activities listed on the rating scale. Had there been a very high correlation between these variables it could have been suggested that those with the highest level of education should not participate in such an institute.

The lack of a significant correlation between level of education and the post-institute rating scale score would indicate that the participants' feelings of what they gained from the institute were not related to their previous level of education. The author would see this as a desirable condition.

The extent of the trainees' teaching experience was not found to be related to their pre-institute rating scale scores. Although there was some variation in their amount of teaching experience the largest group of trainees were beginning teachers which might well account for the lack of a higher correlation for this comparison.

## The Instructors

At the end of the institute the participants were asked to complete an instructor rating scale (Appendix H) for each of the three instructors. The ratings were tabulated and each instructor had an opportunity to see the results of the ratings. The individual ratings will not be presented in this report for their purpose was strictly to benefit the instructors involved. The over-all means on the fifteen items for the three instructors were 3.87, 3.94, and 4.67. As a rating of three is average on the five point scale it was concluded that the instructors had performed adequately.

Although the instructor ratings were not considered primarily as a means of measuring the success of the institute it does seem to follow that if the trainees were generally satisfied with their instructors they were probably satisfied with the institute. There were several additional comments regarding the instructors on the other evaluation instruments. These comments were about equally divided between favorable and unfavorable.

TABLE 5  
 RANK ORDER CORRELATIONS OF SELECTED VARIABLES  
 FOR INSTITUTE TRAINEES

Variables Compared	N	Rho	Probability Level	
Level of education by Pre-institute rating scale score	20	.58	P	.01
Level of education by Post-institute rating scale score	20	.12	P	.05
Teaching experience by Pre-institute rating scale score	20	.313	P	.05

## IV. CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

From an analysis of the evidence presented in the previous chapter it is concluded that the Teacher Education Institute For New Health Occupations Education Teachers was successful in improving the teaching abilities of the twenty trainees. Furthermore, it was concluded that an activity of this nature need not be limited to a single occupational group within the health field.

There was constructive criticism of the institute by both the trainees and the instructors. Although many of these criticisms were valid and will be reflected in the recommendations made in this chapter it was concluded that none of the problems which brought forth such criticism were sufficient to question the over-all success of the institute.

Rather than repeating the evidence presented in the preceding chapter for each subject area individually it will be concluded that all were successful, within acceptable standards. Of considerably more merit than a redundant list of conclusions are the recommendations for these subject areas should they be included as a part of future institutes.

### Recommendations

#### The Institute in General

A large majority of both beginning and present health occupations education teachers have had little or no preparation in the art of teaching. As the institute described in this report has proven successful in providing such teachers with the basic essentials of teacher education the first, and primary, recommendation to be made is that a substantial number of such institutes should be held throughout the country. It is further recommended that such institutes be held on a regional or state basis. It is felt this report can serve as a guide to assisting others in preparing and conducting such institutes.

Although it would be possible, as has been done in the past, to hold teacher education institutes for single health occupations areas it is recommended that such institutes be designed to include instructors from all types of health occupations education programs. It is felt that there is enough similarity in these areas that they can be effectively taught together and that there is much to be gained by the sharing that occurs. It would be possible to include instructors from other vocational areas, or even general education instructors, in a single institute, but when the teacher education activity is limited to this type of concentrated short-term program it is the author's opinion

that the institute should be limited to instructors from one general area such as health occupations education.

There was some criticism that this institute was too "nurse oriented." The author feels that this was because most of the available examples were from the nursing field and that two of the instructors were nurses. An attempt had been made to obtain an instructor from one of the other health areas but none was found. For future institutes every effort should be made to find such an instructor, and it would be advisable that when examples are used they represent a variety of health occupations education areas.

The following recommendations are also made regarding the general conduct of the institute:

- . An institute of this nature could, and should, be limited to two weeks in length. This would require more extensive planning, greater use of "packaged instruction," and would require that the participants be willing to put in a longer work day.
- . College credit should be available for participation in the institute.
- . The institute should be held during the regular summer school session.
- . Additional introductory materials should be sent to the participants prior to their arrival at the institute. The use of well prepared condensed materials to introduce the participants to the areas to be covered can greatly facilitate learning. This would of course affect the evaluation process.
- . Considerable efforts should be expended to have the participants represent a wide variety of health occupations.
- . The policy of paying subsistence stipends and travel should be continued until activities of this nature are readily available to most health occupations teachers.
- . Opportunities for the participants to discuss common problems and share ideas should be expanded.

#### The Institute Activities

It is recommended that each of the subject areas included in this institute be a part of future activities of this type and that their conduct be similar to that described herein with the following changes:

- . Throughout the institute there should be greater emphasis placed on the student-centered approach to education as opposed to the more common teacher-centered approach.
- . The subject matter covered under The Process of Learning should be condensed and some of the more factual material be taught through self-instruction packages.
- . More examples of behaviorally stated objectives from the health occupations education field should be available, and more time should be spent in writing objectives with varying levels of specificity.
- . The area on selecting course content and learning experiences should be reduced in breadth and increased in depth. More examples should be used in this area.
- . The material covered under the Instructional Media area should be more selectively chosen to cover only that which is fitting to the more common applications in health occupations education.
- . Model presentations using various teaching methods should be video taped and shown to the trainees prior to their micro-teaching presentations.
- . The video review of the micro-teaching tapes should be held very shortly after the actual presentation. To accomplish this during an institute of this length would require the availability of a second video tape recorder.
- . Although a number of the participants reacted negatively to the "reteach" portion of the micro-teaching it is felt that this practice should be retained, at least for the first short presentations. Having the "reteach" presentation within a much shorter time following the original presentation would greatly improve the effectiveness of this technique and should reduce the negative reactions.
- . An effort should be made to have the ratings of the critiquing teachers be more uniform.
- . The "instructional packages" for the area on measurement and evaluation should be upgraded to make them more precise and to the point. The inclusion of other media materials and the use of a workbook or programmed text would be advisable.

- . No new subject areas as such are recommended, though it is suggested that attention be given to the additional topics reported in the previous chapter. It is felt that these topics could be covered under the subjects as presented, or in the extended "buzz sessions" already recommended.

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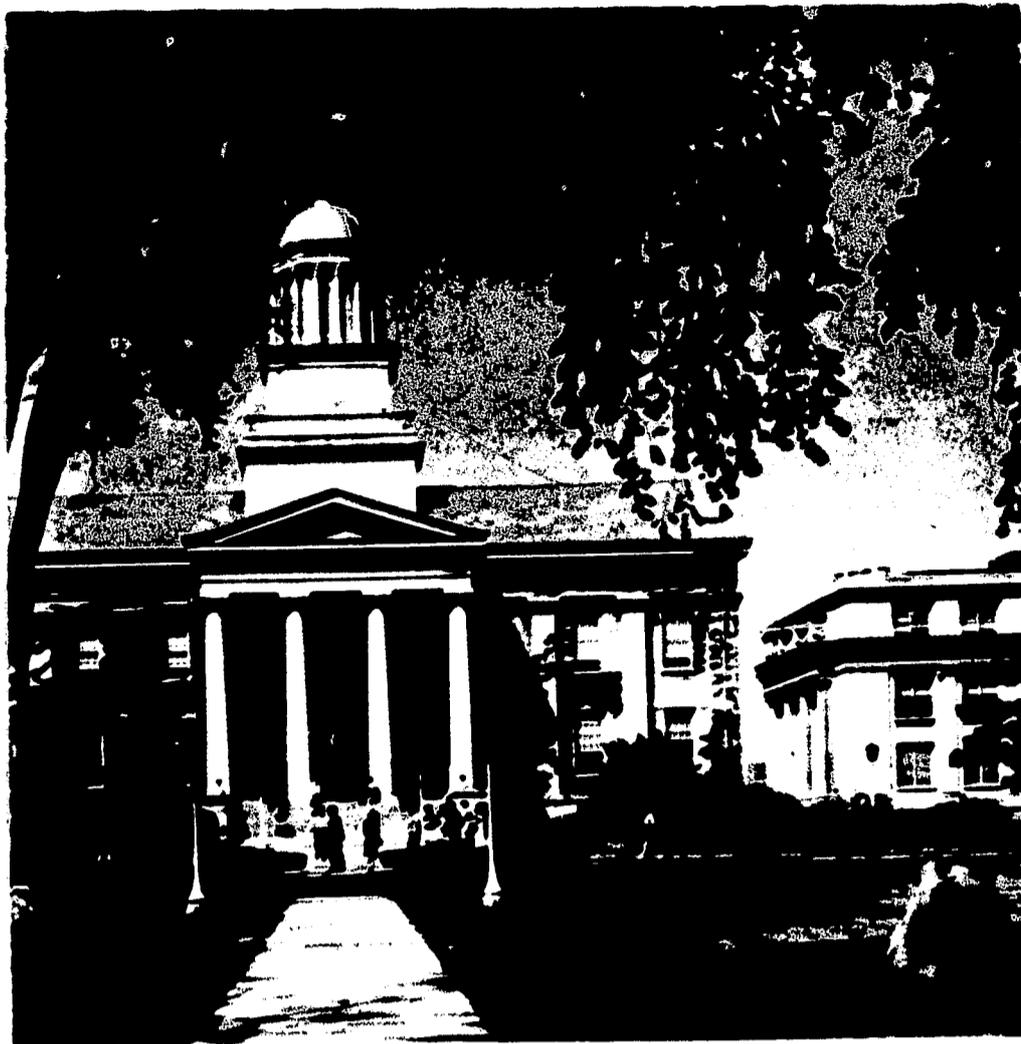
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APPENDIX A  
BROCHURE AND APPLICATION FORM



**TEACHER EDUCATION INSTITUTE  
FOR NEW HEALTH OCCUPATIONS  
EDUCATION TEACHERS**

**July 29-August 16, 1968**

*Conducted under a grant from the  
U.S. Office of Education*

**Program in  
Health Occupations Education**

**UNIVERSITY OF**



**IOWA CITY, IOWA**

### **PURPOSE OF THE INSTITUTE . . .**

The institute is designed to provide new teachers in the health occupations education field with knowledge and skills to assist them in their instructional activities. Though well-prepared and experienced in their technical fields, these individuals rarely have preparation in the art of teaching. The activities of this institute are geared toward expediting the time it takes for new teachers to become proficient in the areas indicated in the objectives below.

### **OBJECTIVES OF THE INSTITUTE . . .**

Having participated in the institute the new teacher will be better prepared to:

- (1) select appropriate types and depth of learning experiences necessary for implementing a suggested, or previously developed, curriculum
- (2) state objectives in behavioral terms
- (3) do effective lesson planning
- (4) use a variety of instructional methods
- (5) make effective classroom presentations
- (6) utilize and produce the common types of instructional media
- (7) construct valid classroom tests

### **THE PROGRAM . . .**

Content will be selected for its relevancy to the type of activities in which new teachers are involved. A wide variety of methods of presentation will be used and participants will have opportunities to discuss their ideas, proposed activities, and problems with one another and with the staff.

Several consultants will make presentations on special topics.

Participants will prepare and present several short lessons. These presentations will be critiqued by an instructor and recorded on video tape. After viewing the "instant replay" the individual will have an opportunity to repeat the presentation.

### **DATES . . .**

The institute will be held July 29, 1968, to August 16, 1968, at The University of Iowa. The duration of the institute will be three weeks.

### **ELIGIBILITY . . .**

Applications will be accepted from all new instructors in vocational-technical health programs. Selection will be made so as to make the group representative of a wide range of health occupations education programs.

### **NUMBER OF PARTICIPANTS . . .**

The number of participants will be limited to twenty.

### **NON-DISCRIMINATION PROVISION . . .**

Discrimination Prohibited—Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, creed, sex, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance."

The University of Iowa operates in compliance with this law.

### **STIPENDS . . .**

Participants will be eligible to receive, upon application, stipends of \$75 per week.

Some travel expense funds are available. After the actual cost for a single round trip from each participant's home to Iowa City has been determined, it will be established what per cent of these costs can be reimbursed.

#### **ACCOMMODATIONS . . .**

*Instruction.* Activities will be conducted in the Medical Laboratory Building which is part of the University Hospital complex. This facility is located one block from the dormitory facilities.

*Housing.* Housing will be provided in the new Rienow Hall at the regular summer rates. On-campus accommodations for married couples without children will be available, but couples with children must arrange housing off campus.

Approximate rates per person for dormitory facilities:

single room . . . . .	\$4.50 per day
double room . . . . . (used by two)	\$3.50 per day

Cafeteria facilities are available near the dormitory.

#### **INSTITUTE STAFF . . .**

*Director.* Dr. Lewis D. Holloway, Assistant Professor, Program in Health Occupations Education, Division of Medical Affairs, The University of Iowa, and Teacher Educator, Vocational Education Branch, State Department of Public Instruction.

*Instructors.* Two experienced health occupations education instructors are to be employed to assist in this institute.

**Request for Application**  
**TEACHER EDUCATION INSTITUTE FOR NEW HEALTH OCCUPATIONS EDUCATION TEACHERS**

Name:.....  
Address:.....  
School Address:.....  
Position:.....

Return this request to: **Dr. Lewis D. Holloway, Director**  
**H.O.E. Teacher Education Institute**  
**The University of Iowa**  
**135 Melrose Avenue**  
**Iowa City, Iowa 52240**

(The processing of this form does not constitute an application, but merely the request for one. Applications will be sent upon receipt of this form and they must be mailed by June 14, 1968.)

APPLICATION

Teacher Education Institute For New  
Health Occupations Education Teachers

1. Name of Applicant: Mr. \_\_\_\_\_  
Mrs. \_\_\_\_\_  
2. Age \_\_\_\_\_ Miss \_\_\_\_\_  
(Last) (First) (Middle)
3. Home address:  
Street \_\_\_\_\_, City \_\_\_\_\_  
State \_\_\_\_\_ Zip Code \_\_\_\_\_ Tel. \_\_\_\_\_

4. Educational Background:
- |                           | <u>Institution</u> | <u>Major Field</u> | <u>Year Completed</u> | <u>Degree</u> |
|---------------------------|--------------------|--------------------|-----------------------|---------------|
| H.S.                      | _____              |                    |                       |               |
| Post H.S.<br>(non degree) | _____              |                    |                       |               |
| College                   | _____              |                    |                       |               |
| Military                  | _____              |                    |                       |               |
| Other                     | _____              |                    |                       |               |

Please describe any formal preparation you may have had for your role as a teacher, such as workshops or education courses.

5. Licensure or Certification:  
Indicate type if any \_\_\_\_\_

6. Employment Record prior to your new position as an H.O.E. Teacher:  
(List most recent experience first and give last four positions only.)

<u>Position</u>	<u>Institution or Employer</u>	<u>City</u>	<u>State</u>	<u>Years</u>
_____				
_____				
_____				
_____				

If any of the above, or earlier experiences, were teaching, please describe.

7. New Employment as Health Occupations Education Teacher:

Position \_\_\_\_\_  
Institution \_\_\_\_\_  
Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_  
Zip Code \_\_\_\_\_ Tel. \_\_\_\_\_

Describe the program. (New or old, number of teachers and students, etc.)

When did, or will, your employment begin? \_\_\_\_\_

Will you be teaching prior to the institute? \_\_\_\_\_

Type and Level

<u>Type</u>		<u>Level</u>
Vocational-Technical _____	Hospital _____	Secondary _____
MDTA _____	Other _____	Post Secondary _____
Job Corps _____	(Specify)	

Administrator or Supervisor

Name \_\_\_\_\_ Title \_\_\_\_\_

"Please enclose a recommendation from this administrator with your application."

8. Applicant's Signature \_\_\_\_\_

9. Send application to: Dr. Lewis D. Holloway, Director  
H.O.E. Teacher Education Institute  
The University of Iowa  
135 Melrose Avenue  
Iowa City, Iowa 52240

APPENDIX B  
THE PARTICIPANTS

H.O.E. INSTITUTE

Participants

Mrs. Sandra Baldwin, R.N.  
Practical Nursing Program  
Hawkeye Institute  
Waterloo, Iowa

Mrs. Sarah Barnett, R.N.  
Practical Nursing  
Tri-County Technical School  
Bartlesville, Oklahoma

Miss Mary Janice Brown, R.N.  
Nurse Aide Program  
Northern New Mexico State School  
El Rito, New Mexico

Miss Elva Cogdal, R.N.  
Health Occupations  
LaSalle-Peru Vocational Center

Mrs. Virginia Collins, R.N.  
Nursing Assistants  
Linn-Benton Community College  
Albany, Oregon

Mrs. Barbara Compton, R.N.  
Health Assistant Program  
Bethlehem Area Vocational-Technical  
School  
Bethlehem, Pennsylvania

Miss Lois Eaddy, R.N.  
Sunter School of Practical Nursing  
Sunter, South Carolina

Mrs. Ruth Eden, R.N.  
Practical Nursing-Health Assistant  
Program  
Sussex County Vocational-Technical  
Center  
Georgetown, Delaware

Mr. Wesley Etheridge  
Mental Health Officer Training  
Program  
Iowa Security Medical Facilities  
Anamosa, Iowa

Miss Karla Funk, R.N.  
Wichita Practical Nursing School  
Wichita, Kansas

Miss Marlene Hallee, R.N.  
Maine School of Practical Nursing  
Waterville, Maine

Mrs. Felsie Lewis, C.D.A.  
Dental Assistant  
Vanguard Vocational School  
Freemont, Ohio

Mrs. Jeannie Madson, R.N.  
Nurses Aide & Hospital Nurse Aide  
Training  
Washoe County School District  
Reno, Nevada

Mrs. Lily Mogen, R.N.  
Pierre School of Practical Nursing  
Pierre, South Dakota

Mrs. Kathryn Pierog, R.N.  
Career Development Program  
Barrington High School  
Barrington, Illinois

Dr. Sam Pobanz, M.D.  
Director of Health Services  
Treasure Valley Community College  
Ontario, Oregon

Mrs. Eleanor Porter, R.N.  
Practical Nursing Program  
Sheridan Vocational Center  
Hollywood, Florida

Mrs. Margaret Rowe, M.T.  
Medical Lab Assistant Program  
Area XI Community College  
Des Moines, Iowa

Miss Judith Schaerer, R.N.  
Health Occupations  
State Area Vocational-Technical School  
Athens, Tennessee

Mrs. Edith Schmutzler, R.N.  
Licensed Practical Nursing Program  
West Plains School District R 7  
South Central Area Vocational School  
West Plains, Missouri

## PROFILE OF PARTICIPANTS

**Sex:**

Male            2  
 Female        18

**Level of Program**

Secondary                                7  
 Post Secondary                        12  
 Secondary & Post Secondary        1

**Age:**

20-25            5  
 26-30            2  
 31-40            3  
 41-45            4  
 46-50            5  
 Over 51         1

**Martial Status:**

Married                                14  
 Single                                    6

Median: 37 years

**License:**

Registered Nurse                        16  
 Medical Technologist                    1  
 Certified Dental Assistant            1  
 Medical Doctor                         1  
 None                                        1

**Number of Years of Post High School Education:**

1 year                                    1  
 2 years                                    0  
 3 years                                    11  
 Baccalaureate                            6  
 Masters or above                        2

Median: 3.4 years

**Teaching Experience:**

0 - 6 months                            12  
 7 -12 months                            5  
 1 - 2 years                                1  
 2 years & above                        2

Median: 9.0 months

**Experience in Health Area:**

0- 2 years                                2  
 3- 4 years                                6  
 5- 8 years                                3  
 8-15 years                                3  
 15-25 years                               6

Median: 7.25 years

**Type of Program:**

Practical Nursing                        9  
 Nurse Aide                                9  
 Dental Assistant                        1  
 Health Orientation                       5  
 Laboratory Assistant                    1  
 Mental Health Officers                 1

**Region:**

Northwest - 3  
 Northeast - 3  
 Southwest - 1  
 Southeast - 3  
 Midwest -10

APPENDIX C  
INSTRUCTIONAL STAFF  
AND CONSULTANTS

2

## INSTRUCTIONAL STAFF AND CONSULTANTS

Teacher Education Institute  
For New Health Occupations  
Education Teachers

### Director

Lewis D. Holloway, Ed.D.  
Assistant Professor, College of Medicine  
Program in Health Occupations Education  
Division of Medical Affairs  
The University of Iowa  
135 Melrose Avenue  
Iowa City, Iowa 52240

### Instructors

Mrs. Louise Flatley, R.N.  
Coordinator, Orthopedic Assistant Program  
Area X Community College  
Cedar Rapids, Iowa

Miss Phyllis Kriner, R.N., B.S.N.  
Assistant Coordinator  
Health Occupations Careers, MDTA  
Chicago Board of Education  
Chicago, Illinois

### Consultants

Mr. Norm Felsenthal  
Assistant to the Director  
Audiovisual Center  
The University of Iowa  
Iowa City, Iowa

Miss Elizabeth Kerr, Director  
Program in Health Occupations  
Education  
The University of Iowa  
and  
State Consultant  
H.O.E. Section  
Vocational Education Branch  
State Department of Public  
Instruction  
Iowa City, Iowa

Mr. Robert Long  
Associate Director  
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The University of Iowa  
Iowa City, Iowa

Mr. Cal Mether  
Educational Media Director  
University Lab School  
Iowa City, Iowa

Dr. Paul Retish  
Assistant Professor  
College of Education  
The University of Iowa  
Iowa City, Iowa

APPENDIX D

PROGRAM

TEACHER EDUCATION INSTITUTE  
FOR NEW HEALTH OCCUPATIONS  
EDUCATION TEACHERS

July 29-August 16, 1968

Program

First Week

Monday, July 29, 1968

9:00 - 9:50	Registration
10:00 - 11:45	Introductions
	Welcome
	Orientation
11:45 - 12:15	Pre-institute Rating Scale
1:15 - 2:10	Process of Learning
2:30 - 4:00	Behavioral Objectives
6:30 -	Picnic

Tuesday, July 30, 1968

8:30 - 12:00	Problems of the Disadvantaged
1:00 - 1:50	The Disadvantaged in H.O.E. Programs
2:00 - 2:50	Behavioral Objectives (continued)
*3:00 - 4:30	Individual Work
	Tape Recorder Operation

Wednesday, July 31, 1968

8:30 - 12:00	Selecting Course Content
1:00 - 2:30	Lesson Planning
2:30 - 3:30	Viewing of Video Tape Made of Instructors
	Discussion of Microteaching
*3:30 - 5:00	Individual Work

Thursday, August 1, 1968

*8:30 - 9:30	Individual Work
9:30 - 11:30	Instructional Media - General (Trainees were divided into three groups and rotated through the following sessions.)
12:30 - 4:00	Instructional Media - Overhead Projector Use and production of transparencies (Trainees were video-taped during this session.)

Instructional Media - Printed Materials  
Sources, form, and production; Mock-  
ups; and production of transparencies  
Instructional Media - Projectors  
Filmstrips, slides, etc.

Friday, August 2, 1968

8:30 - 10:20	View Video Tape of Trainees
	Review and Discuss Assignments
10:30 - 12:00	Process of Learning
1:00 - 3:30	Instructional Methods - Lecture
*3:30 - 5:00	Individual Work

Second Week

Monday, August 5, 1968

*8:30 - 12:00	Individual Work
1:00 - 5:00	Micro-teaching #1 - Teach and Critique
*1:00 - 5:00	Individual Work

Tuesday, August 6, 1968

8:30 - 12:00	Micro-teaching #1 - Individual Replay
*8:30 - 12:00	Individual Work
1:00 - 5:00	Micro-teaching #1 - Reteach and Critique
*1:00 - 5:00	Individual Work

Wednesday, August 7, 1968

8:30 - 11:00	Micro-teaching #1 - Group Replay
11:00 - 11:30	Micro-teaching #1 - General discussion
1:00 - 2:10	Instructional Methods - Demonstration
*2:10 - 4:00	Individual Work

Thursday, August 8, 1968

*8:30 - 12:00	Individual Work
1:00 - 5:00	Micro-teaching #2 - Teach and Critique
*1:00 - 5:00	Individual Work

Friday, August 9, 1968

8:30 - 12:00	Micro-teaching #2 - Individual Replay
*8:30 - 12:00	Individual Work
1:00 - 5:00	Micro-teaching #2 - Reteach and Critique
*1:00 - 5:00	Individual Work

Third Week

Monday, August 12, 1968

8:30 - 11:00	Micro-teaching #2 - Group Replay
11:00 - 11:30	Micro-teaching #2 - General Discussion
1:00 - 2:30	Instructional Methods - Lecture, Discussion, and others
*2:30 - 4:00	Individual Work

Tuesday, August 13, 1968

8:30 - 10:00	General discussion session (e.g., student selection, new programs, salaries, student cheating)
10:15 - 12:15	Professional Development, Interpersonal Relations, etc.
1:00 - 5:00	Micro-teaching #3 - Teach and Critique
*1:00 - 5:00	Individual Work

Wednesday, August 14, 1968

8:30 - 12:00	Micro-teaching #3 - Individual Replay
*8:30 - 12:00	Individual Work
1:00 - 5:00	Micro-teaching #3 - Reteach
*1:00 - 5:00	Individual Work

Thursday, August 15, 1968

8:30 - 11:45	Micro-teaching #3 - Group Replay
10:45 - 12:00	Micro-teaching #3 - General Discussion
1:00 - 4:00	Tour of University Hospitals and the Iowa Security Medical Facilities
6:00 -	Dinner Party

Friday, August 16, 1968

8:30 - 9:15	Research in H.O.E. - ERIC
9:30 - 10:30	Test Construction - Summary and Questions
10:30 - 11:15	Institute Evaluation

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\*During these periods of time, trainees were expected to plan time in their schedule to complete the "packaged" units on Measurement and Evaluation in the Classroom.

APPENDIX E  
TITLES OF MATERIALS  
HANDED OUT DURING THE INSTITUTE

## TITLES OF MATERIALS HANDED OUT DURING THE INSTITUTE

### General Information

- Tentative Time Schedule
- Revised Agenda for Third Week
- List of Trainees - Programs
- List of Trainees - Addresses
- Chamber of Commerce Brochures and Information Materials on Iowa City Area
- General Objectives of the H.O.E. Institute
- Health Occupations Education in Iowa (Descriptive Materials)

### Process of Learning

- Lesson Plan and Outline
- "Poor Scholar's Soliloquy" by Stephen M. Corey
- "The Neuropsychological Theory of Donald O. Webb" by Lewis D. Holloway
- "Psychophysiology and Education" by Lewis D. Holloway
- "Critical Requirements for Effective Nurse-Teacher Behavior in an Associate Degree Nursing Program" by Venner M. Farley
- Learning Principles (Dept. of the Army)

### Behavioral Objectives

- Lesson Plan and Outline
- Handouts
  - Word Interpretations
  - Three Steps in Writing Behavioral Objectives
  - Steps for Determining Educational Objectives
- Preparing Instructional Objectives by Robert F. Mager (programmed text)

### Problems of the Disadvantaged

- Lesson Plan and Outline
- Handouts
  - The Cognitive Development of Socially Disadvantaged
  - "English as a Second Language" by Don Bailey
  - Children and Youth: Selected Bibliography

### Selecting Course Content

- Lesson Plan and Outline
- Planning In Vocational Education (Chart)
- Charts
  - Objective — Content — Experiences
  - Continuity, Sequence and Integration
- Examples of General and Specific Objectives

### Lesson Planning

- Sample Lesson Plans from selected sources
- "Lesson Plan Horse Sense" by Edward Estabrooke

## Instructional Methods

- Lecture Method
  - Lesson Plan and Outline
- Demonstration Method
  - Lesson Plan
  - Steps in Giving a Demonstration

## Instructional Media

- Operating the Tape Recorder
- School Use of Magnetic Tape Recorders
- Recorders
- Principles of Sound and Techniques of Recording
- A Check List of Sound Facts
- Instructional Materials Sources for H.O.E., State of Iowa,  
Dept. of Public Information
- Relia or 3-Dimensional Materials
- Instruction Sheets
- The Assignment Sheet
- The Information Sheet
- The Job Sheet
- The Job Plan Sheet
  
- The Operation Sheet
- Selection of Equipment
- Handmade Transparencies for Overhead Projection
- Ready-Made Transparencies
- Slides and Booklet: Medical Terminology

## Measurement and Evaluation

- General Information and Directions for Using Packaged Lessons
- Lesson I: Evaluation in Teaching: An Introduction
  - Lesson Plan and Outline
  - Handouts
    - Evaluation — An Integral Part of the Educational Process
    - Correlation
    - Objectives
    - Content
    - Table of Specifications
- Lesson II: Constructing Classroom Tests
  - Handouts
    - Sample Items: Essay and Short Answer
    - Sample Items: True-False and Matching
    - Sample Items: Multiple Choice
    - Sample Items: Interpretive Exercise
- Lesson III: Supplemental Evaluation Activities
  - Outline
  - Handouts
    - Directions
    - Correction for Guessing
    - Grading Systems

Normal Curve  
Grouped Tabulations  
Grading Practice  
Combining Grades  
Item Analysis  
Test Item File and Data  
The VVN & N Printed Student Response System (Pencil  
erasure answer sheets)  
"Re-Program Programing?" by Dr. Sidney L. Pressey

Research in Health Occupations Education  
Locations of ERIC Clearinghouses  
ERIC Publications Order Form

Previously Prepared Course Outlines from H.O.E. Programs  
Rationale and Suggested Guidelines for the Establishment and  
Implementation of Two Year Associate Degree Nursing Programs  
Administered in Cooperation with the Vocational-Technical  
Education Branch of the Iowa Department of Public Instruction  
Pittsburgh Vocational High School Practical Nurse Program Outline  
Nurse Aid Program Curriculum Guidelines  
Medical-Assistant Secretary Course Description  
Course Outline for Operating Room Technicians  
Suggested Course Outline for Immediate Care Technician Program

APPENDIX F  
MICRO-TEACHING SCHEDULE  
AND EVALUATION SHEETS

H.O.E. INSTITUTE

Micro-teaching Schedule

Type of Presentation \_\_\_\_\_ Teach \_\_\_\_\_  
Reteach \_\_\_\_\_

<u>Beginning Time</u>	<u>Group</u>	<u>Trainee</u>
1:10		
1:20		
1:30		
1:40		
1:50		
2:00	Break	
2:10		
2:20		
2:30		
2:40		
2:50		
3:00	Break	
3:10		
3:20		
3:30		
3:40		
3:50		
4:00	Break	
4:10		
4:20		
4:30		
4:40		
4:50		





H.O.E. INSTITUTE  
Micro-Teaching Evaluation Sheet

Trainee's Name \_\_\_\_\_ Observer \_\_\_\_\_  
 Type of Presentation \_\_\_\_\_ Teach \_\_\_\_\_ Reteach \_\_\_\_\_  
 Title: \_\_\_\_\_

<u>Evidence of Planning</u>	Low					High				
Lesson plan	1	2	3	4	5					
Instructional materials development	1	2	3	4	5					
Materials on hand	1	2	3	4	5					
Organization	1	2	3	4	5					
Timing	1	2	3	4	5					
 <u>Presentation</u> 										
<u>Introduction</u>										
Attention - interest	1	2	3	4	5					
Motivation	1	2	3	4	5					
Purpose of the lesson	1	2	3	4	5					
 <u>Body</u> 										
Speaks effectively	1	2	3	4	5					
Appearance - mannerisms	1	2	3	4	5					
Shows confidence	1	2	3	4	5					
Appropriate instructional method	1	2	3	4	5					
Appropriate content	1	2	3	4	5					
Adequately covers subject	1	2	3	4	5					
Use of examples	1	2	3	4	5					
Use of instructional materials	1	2	3	4	5					
Reinforcement	1	2	3	4	5					
Student involvement	1	2	3	4	5					
Classroom management	1	2	3	4	5					
 <u>Summary</u> 										
Consolidation of learnings	1	2	3	4	5					
Review	1	2	3	4	5					

APPENDIX G  
EXAMPLES OF MATERIALS  
DEVELOPED BY INSTITUTE  
TRAINEES

## SUGGESTED REQUIREMENTS OF

### GOOD PERSONAL APPEARANCE FOR THE NURSE

1. The uniform (a) Should be clean, and neat--well made, well fitted, of length currently considered correct, and in good condition;  
(b) Should not be worn in public.  
(c) The cap should be clean--folded correctly and worn in the manner prescribed by the school.  
(d) The shoes should be cleaned daily and in good condition.  
(e) The stockings should be white, without repairs showing.
2. Personal Cleanliness:  
(a) Daily bath.  
(b) Skin-clear and clean with only a conservative amount of makeup.  
(c) Hair-shampooed weekly--arranged neatly--off of uniform collar.  
(d) Hands-well kept--nails trimmed short and well groomed. If nail polish is used, it should be conservative in color and in impeccable condition.  
(e) Teeth-proper care through daily brushing and systematic visits to dentist.
3. Jewelry: Should not be worn except for the school pin and a wrist watch; also no ornaments or brightly colored handkerchiefs should be worn.
4. Perfume: Should not be worn; cologne, talcum and deodorants will better meet the nurses' needs.

Such practices as:

1. gum chewing
2. loud, boisterous talking
3. lounging in undignified positions
4. smoking just before reporting for duty or in patient's rooms
5. eating or drinking at the nurses station or in patient's rooms

all detract from the nurses' appearance.

And, to conclude, it has been suggested that the most beautiful thing a nurse can wear is a SMILE.

References: Unit I, "Introduction to Nursing" from The Art, Science, and Spirit of Nursing by Alice L. Price.

Assignment: With the hand-out sheet as reference, do a self-evaluation of yourself as you appear in uniform.

Title: The Structure and Function of the Heart

Objective:

The nursing aide student identifies the important parts of the heart and compares the action of the heart with a pump.

Student indicates knowledge of the heart by:

- a. Use of correct terminology in class discussion
- b. Correct labeling of diagram on handout sheet
- c. Ability to compare heart function to pump

Training Aids:

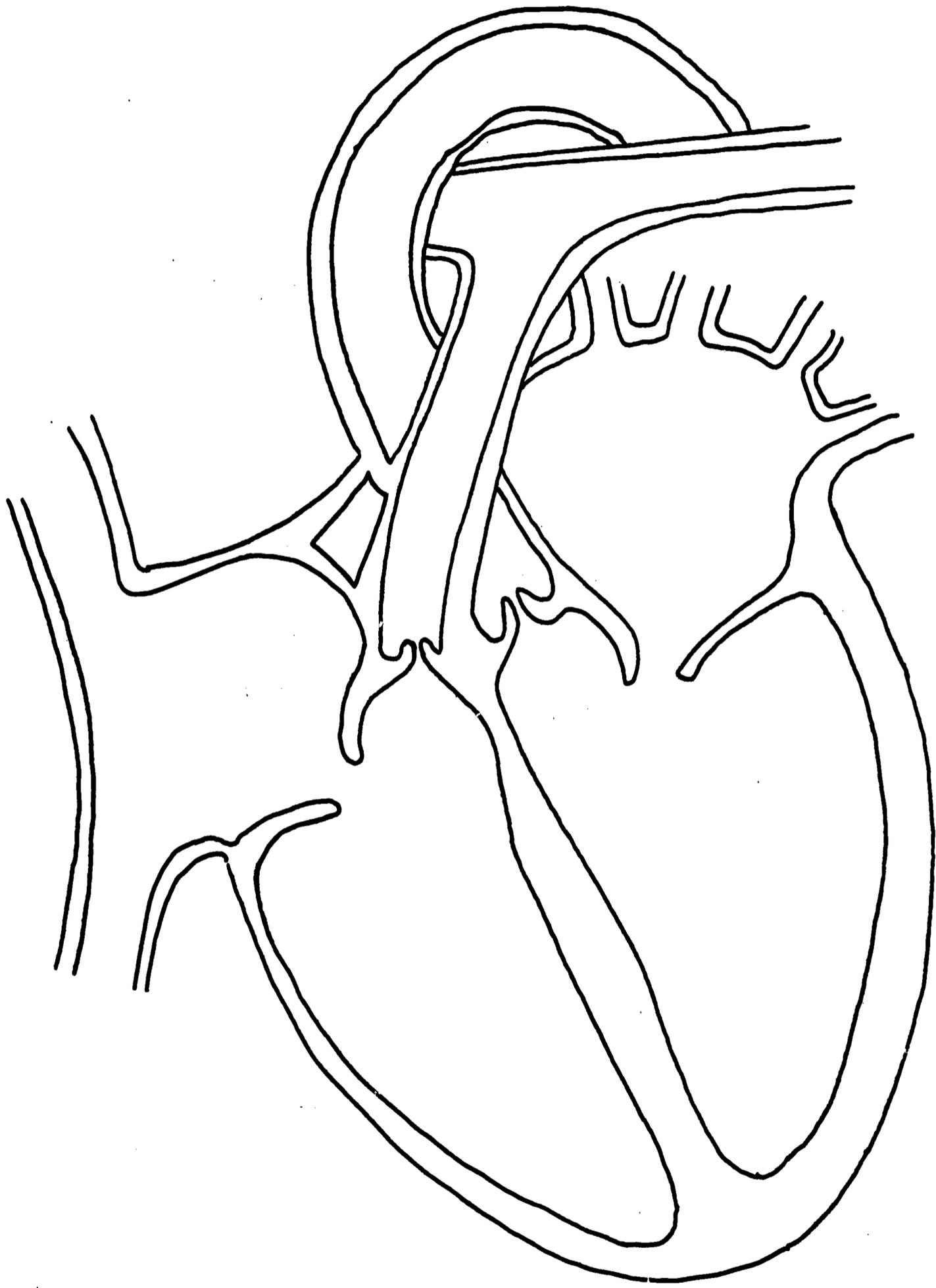
General outline  
Handout sheet  
Transparencies

References:

Structure and Function. Catherine Parker Anthony. 1968.  
Workbook for Practical Nurses. Audrey Latshow Sutton. 1964.

## The Heart and Its Function

- A. Introduction
- B. Structure
  - 1. Muscular organ
  - 2. Size and shape
  - 3. Tissue layers
    - a. Pericardium
    - b. Myocardium
    - c. Endocardium
  - 4. Chambers
    - a. Auricles or atrium
    - b. Ventricles
  - 5. Valves and function
    - a. Between Rt. Auricle and Rt. Ventricle
    - b. Between L. Auricle and L. Ventricle
    - c. Valves in large blood vessels
  - 6. Septum and function
- C. Heart contractions
  - 1. Normal rate
  - 2. Factors influencing the normal
- D. Location of heart in body
- E. The heart as a pump
- F. Summary



HEART CROSS SECTION  
(Transparency and Handout)

Lesson: Assembly of syringe wrapped either in paper or cloth

Objective: The student will assemble a wrapped sterile syringe

and keep important parts of equipment free from contamination.

Student indicates skill: a) Correctly assembling a sterile wrapped syringe avoiding contamination on return demonstration.

b) Uses correct terminology to identify parts of syringe.

Teaching aids: Sterile wrapped material for demonstration.

Alcohol sponge

Transparency

Handout sheet

Reference: Textbook of Basic Nursing. Thompson and Murphy. 1966.

## Assembly of Sterile Wrapped Syringe

### A. Introduction

#### 1. Motivating factors

- a. New learning
- b. Common way of storing unusual size syringe
- c. Opportunity to review previous learning

### B. Steps of Assembly

#### 1. Opening the packet

- a. Break seal
- b. Fold back wrapper
- c. Avoid touching inside of wrapper

#### 2. Grasp under surface of wrapper

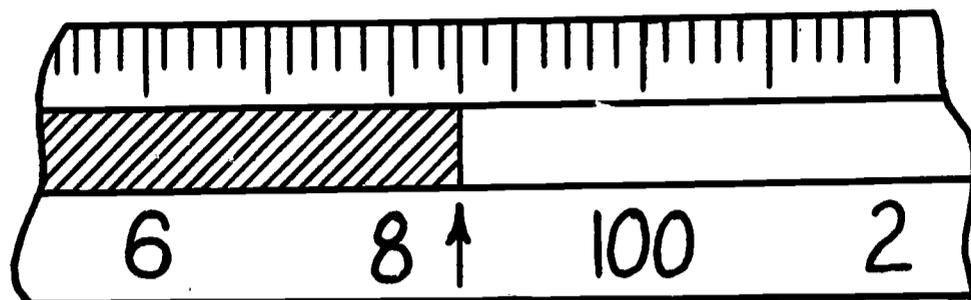
- a. Secure barrel and plunger of syringe
- b. Pick up plunger at the outer end and insert into barrel

#### 3. Pick up the needle at hub and secure the adapter.

#### 4. Protect needle from contamination until used by

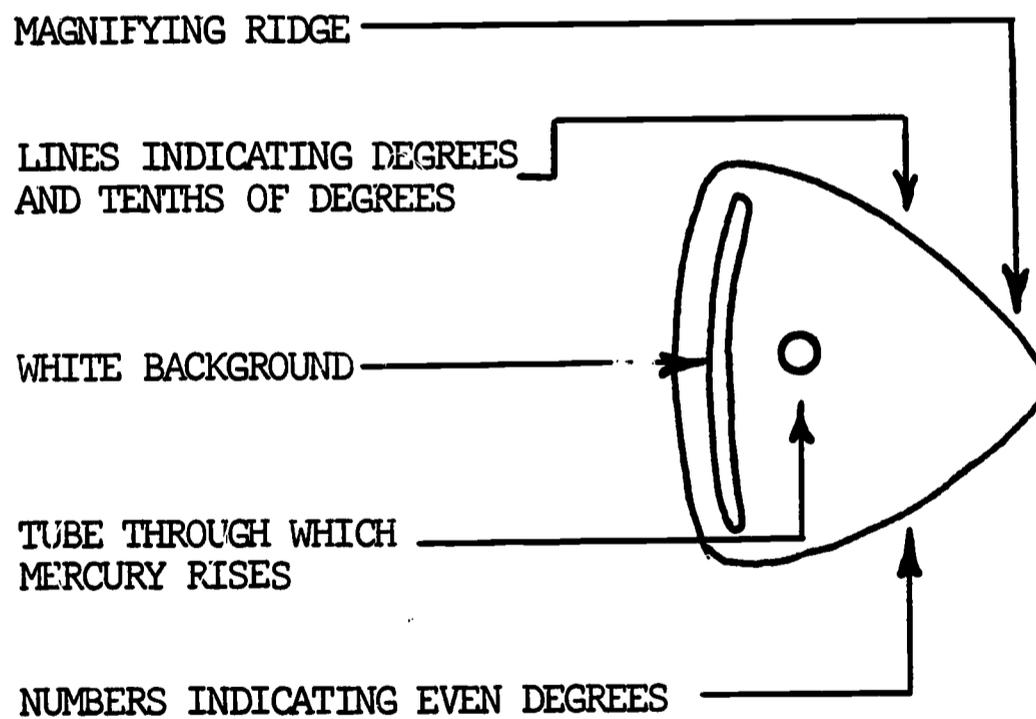
- a. Sterile alcohol or
- b. Zepharin chloride sponge

H.O.E. INSTITUTE



DETAIL OF THE THERMOMETER.

Arrow indicates average normal temperature.



CROSS SECTION DRAWING OF A CLINICAL THERMOMETER.

APPENDIX H  
INSTITUTE EVALUATION  
INSTRUMENTS

H.O.E. INSTITUTE

Self-Rating Scale

\_\_\_\_\_  
Name

Rate yourself as you see your knowledge and abilities in each of the following areas at this time. Scale is from 1 to 5 -- low to high.

The Process of Learning

Low

High

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 |
| 1. Awareness of how the general factors of learning affect working with students, e.g., readiness, motivation, transfer. |   |   |   |   |   |
| 2. Knowledge of the special problems which affect the learning process of disadvantaged students.                        |   |   |   |   |   |

Instructional Objectives

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
|   | 1 | 2 | 3 | 4 | 5 |
| 3. Understanding the desirability of using stated objectives.   |   |   |   |   |   |
| 4. Stating objectives in behavioral terms.  |   |   |   |   |   |
| 5. Using objectives as a guide throughout the educational process.  |   |   |   |   |   |
| 6. Choosing learning experiences based upon objectives of your program and the particular unit being studied. |   |   |   |   |   |
| 7. Analyzing systematically a given subject area and breaking it down into specific blocks of time.           |   |   |   |   |   |
| 8. Identifying priorities relative to depth of content.   |   |   |   |   |   |

Lesson Planning

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
|  | 1 | 2 | 3 | 4 | 5 |
| 9. Including appropriate information in lesson.                      |   |   |   |   |   |
| 10. Awareness of a variety of formats for making lesson plans.       |   |   |   |   |   |
| 11. Ability to write lesson plans appropriate for a particular task. |   |   |   |   |   |

	<u>Instructional Methods</u>				
	Low		High		
	1	2	3	4	5
12. Selecting methods appropriate to content and type of learning behavior desired.	1	2	3	4	5

13. Using instructional methods effectively.	1	2	3	4	5
--	---	---	---	---	---

	<u>Instructional Media</u>				
	1	2	3	4	5
14. Awareness of the availability of instructional media and their use.	1	2	3	4	5
15. Producing common media.	1	2	3	4	5
16. Ability in using common media.	1	2	3	4	5

	<u>Classroom Presentations (Micro-teaching)</u>				
	1	2	3	4	5
17. Being confident in making presentations.	1	2	3	4	5
18. Speaking effectively.	1	2	3	4	5
19. Developing and maintaining student interest.	1	2	3	4	5
20. Covering material adequately.	1	2	3	4	5

	<u>Measurement and Evaluation</u>				
	1	2	3	4	5
21. Giving consideration to all objectives and content in preparing tests.	1	2	3	4	5
22. Using appropriate types of questions.	1	2	3	4	5
23. Writing valid classroom tests.	1	2	3	4	5

H.O.E. INSTITUTE

No names, please.

Institute Evaluation

1. In general, did the activities of the institute succeed in accomplishing the goals specified?

Yes \_\_\_\_\_ No \_\_\_\_\_ Uncertain \_\_\_\_\_

If you answered "no" or "uncertain," please explain:

2. Would you recommend that similar institutes be held, and would you advise others to attend?

Yes \_\_\_\_\_ No \_\_\_\_\_ Uncertain \_\_\_\_\_

3. Which topic or activity of the institute was most successful? Why?

4. Which topic or activity of the institute was least helpful? Why?

5. What topics or activities do you feel should have been included in the institute which were not?

6. On what topics or activities was too much time spent?

7. On what topics or activities was not enough time spent?

8. Were the classroom facilities adequate?

9. Were the dormitory facilities adequate?

10. Were three weeks about the proper length of time for an institute of this type?

11. Was the timing during the summer about right?

12. Would you have been interested in receiving two semester hours of credit for the institute? For such credit you would have been required to pay a fee ranging from \$55 to \$97.

Yes \_\_\_\_\_ No \_\_\_\_\_ Uncertain \_\_\_\_\_

13. What comments, positive or negative, can you make which will assist us in evaluating the institute?



H.O.E. INSTITUTE  
Trainee Follow-up

1. Please rate each of the following areas which were a part of the institute. We are interested in how well you feel these subjects were covered. Any comments you might make in addition to the ratings will be appreciated.

A rating of three should be considered as acceptable coverage.

	Low			High	
	1	2	3	4	5
The Process of Learning					

Comments:

Instructional Objectives	1	2	3	4	5
--------------------------	---	---	---	---	---

Comments:

Selecting Course Content and Learning Experiences	1	2	3	4	5
---	---	---	---	---	---

Comments:

Lesson Planning	1	2	3	4	5
-----------------	---	---	---	---	---

Comments:

Instructional Methods	1	2	3	4	5
-----------------------	---	---	---	---	---

Comments:

Instructional Media

Low High  
1 2 3 4 5

Comments:

Classroom Presentations (Micro-teaching)

1 2 3 4 5

Comments:

Measurement and Evaluation

1 2 3 4 5

Comments:

2. Based upon your activities since the institute, are there other topics which would have been of particular help to you?

3. Please make any other comments which you feel would be helpful to us in evaluating the institute.

## H.O.E. INSTITUTE

### Supervisor Follow-up

Please read the attached list of objectives for our institute.

1. Based upon your contact with the participant of this institute have you observed any changes and/or behavior in the areas of our objectives that you believe could be attributed to the institute? (Please note that we are asking here for your observations as compared with reactions to statements by the participants in number 2.)

The Process of Learning:

Instructional Objectives:

Selecting Course Content and Learning Experiences:

Lesson Planning:

Instructional Methods:

Instructional Media:

Classroom Presentations (Micro-teaching):

Measurement and Evaluation:

2. From specific statements made by the participant regarding the institute are there any reactions you might pass on to us which would assist in ascertaining the strengths and weaknesses of the institute?

3. Based upon what you have learned of the institute from the participant would you recommend other faculty members to attend a similar activity?

## H.O.E. INSTITUTE

### General Objectives

1. Trainee makes decisions regarding working with students based upon knowledge of the process of learning.
  - a. Demonstrates an awareness of the general factors of learning in preparing for, and making classroom presentations.
  - b. Indicated knowledge of the special problems which affect the learning process of disadvantaged students.
2. Trainee writes and uses objectives stated in behavioral terms.
  - a. Indicates an awareness of the desirability of using stated objectives.
  - b. States objectives in behavioral terms.
  - c. Uses objectives as a guide throughout the educational process.
3. Trainee selects appropriate type and depth of learning experiences necessary for implementing a suggested, or previously developed, curriculum.
4. Trainee does effective lesson planning.
  - a. Specifies type of information desirable for inclusion in lesson plans.
  - b. Indicated knowledge of several possible formats for lesson plans.
  - c. Produces lesson plans appropriate for a particular task.
5. Trainee shows familiarity with a variety of instructional methods.
  - a. Selects instructional method appropriate to the content and type of learning behavior desired.
  - b. Demonstrates ability to use selected instructional methods.
6. Trainee makes effective classroom presentations.
  - a. Demonstrates confidence in making presentations.
  - b. Speaks effectively.
  - c. Develops and maintains student interest.
  - d. Covers material adequately.
7. Trainee shows familiarity with a variety of instructional media and is proficient in producing and using the common types.
  - a. Indicates knowledge of available instructional media and their use.
  - b. Demonstrates ability to produce and use common media.
8. Trainee constructs valid classroom tests.
  - a. Shows consideration has been given to all objectives and content in preparing tests.
  - b. Uses appropriate types of questions.
  - c. Writes questions free from gross errors as measured by the instructors.