THE DEVELOPMENT AND EVALUATION OF A SELF-INSTRUCTIONAL UNIT
ON INTERVIEWING FOR DIETETIC STUDENTS

by

MARSEE L. BATES
B.S., Kansas State University, 1975

A MASTER'S THESIS

submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

Department of Dietetics, Restaurant,
and Institutional Management

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1977

Approved by:

Marian C. Spears
Major Professor
Dedicated to my parents
for their sacrifice,
inspiration, encouragement,
and love.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>v</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>REVIEW OF THE LITERATURE</td>
<td>4</td>
</tr>
<tr>
<td>History of Self-Instructional Units</td>
<td>4</td>
</tr>
<tr>
<td>Instructional Strategies and Evaluation for Interviewing in Health</td>
<td>9</td>
</tr>
<tr>
<td>Related Professions</td>
<td></td>
</tr>
<tr>
<td>Interviewing in Dietetics</td>
<td>14</td>
</tr>
<tr>
<td>METHODOLOGY</td>
<td>19</td>
</tr>
<tr>
<td>Sampling and Assignment to Groups</td>
<td>19</td>
</tr>
<tr>
<td>Development of Self-Instruction Unit</td>
<td>20</td>
</tr>
<tr>
<td>Final Preparation of the Instructional Package</td>
<td>27</td>
</tr>
<tr>
<td>Evaluation Review of Materials</td>
<td>27</td>
</tr>
<tr>
<td>Development of Evaluation Instruments</td>
<td>30</td>
</tr>
<tr>
<td>Procedure</td>
<td>32</td>
</tr>
<tr>
<td>Statistical Analysis</td>
<td>34</td>
</tr>
<tr>
<td>RESULTS AND DISCUSSION</td>
<td>35</td>
</tr>
<tr>
<td>Cognitive Domain</td>
<td>35</td>
</tr>
<tr>
<td>Affective Domain</td>
<td>36</td>
</tr>
<tr>
<td>SUMMARY AND CONCLUSION</td>
<td>49</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>52</td>
</tr>
<tr>
<td>APPENDIXES</td>
<td>57</td>
</tr>
<tr>
<td>A. Cognitive and Affective Evaluation Instruments</td>
<td>58</td>
</tr>
</tbody>
</table>
B. Objectives and Samples of Materials Prepared for the Self-Instruction Group .......................... 73

C. Correspondence to Students and Reviewers of Materials ................................. 81
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Item analysis of cognitive tests</td>
<td>65</td>
</tr>
<tr>
<td>2. Mean scores for the examination in the</td>
<td>35</td>
</tr>
<tr>
<td>cognitive domain for control and</td>
<td></td>
</tr>
<tr>
<td>experimental groups</td>
<td></td>
</tr>
<tr>
<td>3. Comparison of pretest and post test</td>
<td>37</td>
</tr>
<tr>
<td>mean scores on a semantic differential</td>
<td></td>
</tr>
<tr>
<td>scale for the control and experimental</td>
<td></td>
</tr>
<tr>
<td>groups, singly and combined, on the</td>
<td></td>
</tr>
<tr>
<td>concept, interviewer</td>
<td></td>
</tr>
<tr>
<td>4. Comparison of pretest and post test</td>
<td>40</td>
</tr>
<tr>
<td>mean scores on a semantic differential</td>
<td></td>
</tr>
<tr>
<td>scale for the control and experimental</td>
<td></td>
</tr>
<tr>
<td>groups, singly and combined, on the</td>
<td></td>
</tr>
<tr>
<td>concept, interviewer</td>
<td></td>
</tr>
<tr>
<td>5. Comparison of pretest and post test</td>
<td>43</td>
</tr>
<tr>
<td>mean scores on a semantic differential</td>
<td></td>
</tr>
<tr>
<td>scale for the control and experimental</td>
<td></td>
</tr>
<tr>
<td>groups, singly and combined, on the</td>
<td></td>
</tr>
<tr>
<td>concept, interviewee</td>
<td></td>
</tr>
<tr>
<td>6. Ratings for personal value, interest,</td>
<td>46</td>
</tr>
<tr>
<td>and instructional method of lecture and</td>
<td></td>
</tr>
<tr>
<td>self-instruction groups</td>
<td></td>
</tr>
<tr>
<td>7. Comparison of self-ratings of ability</td>
<td>47</td>
</tr>
<tr>
<td>to fulfill objectives of interviewing unit</td>
<td></td>
</tr>
<tr>
<td>by control and experimental group</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION

Education is a continuing process and evaluation of educational programs appears to be a necessity. One of the less emphasized and inadequately evaluated phases in the Coordinated Undergraduate Program in Dietetics in Kansas State University is instruction in interviewing concepts and techniques. Because a coordinated program includes both didactic and practical instruction, it is important that dietetic students recognize and develop interpersonal skills. These skills function to enhance cooperation, understanding, and communication between individuals who must work productively toward the attainment of personal and organizational objectives and goals.

The addition to the curriculum of an introductory unit on interviewing could serve to contribute to the development of interpersonal skills. This need was recognized by site evaluators from the American Dietetic Association during a regular five year evaluation visit in April 1976. The recommendation of the site evaluators was that either an additional course on interviewing be provided or a module be added to an existing course. For this reason, more emphasis is being given to the topic of interviewing at the junior level as part of the course, "Instructional Competencies for Dietetic Students." An introductory unit at this academic level on interviewing could provide a base for the development of skills in interviewing during the senior year.

Primarily because the instructor of this class was well versed as an educator only in the general techniques of interviewing, it was considered essential that specific instruction, especially adapted to dietitians, be
developed. For this reason, research was directed toward the development of an independent study unit.

In order to justify the use of independent study units as an adjunct to a traditional type course, it was essential that the two methods be compared. This view led directly to the research hypothesis that there is no significant difference in the effectiveness of teaching interviewing concepts by the traditional method and independent study unit.

Operational Definition of Terms

The term "method of instruction" is frequently used to describe a particular type of instruction in which teacher behavior and often student behavior is influenced by traditions of educational techniques and customs (1). The method a teacher chooses is considered the broad approach to instruction of the subject matter and a technique is a specific procedure used to implement a method. For example, a lecture may be the method implemented for an instruction but the supplemental use of a written handout is a technique (2).

For this study, two methods of instruction, traditional and modular or independent study will be considered. The traditional approach to instruction refers to the presentation of materials by the lecture method in which the instructor has the primary objective to give information (2). The modular instruction refers to a single unit of subject matter presented in a self-instructional format (3). The text for the self-instructional package was presented through a variety of media. One dependent variable, the accomplishment in the cognitive domain concerning interviewing concepts, was measured by scores on the course examination. Attainment in
the affective domain, another dependent variable, was measured by an instrument administered before and after completion of the unit supplemented by a post unit questionnaire.
REVIEW OF THE LITERATURE

History of Self-Instructional Units

Much work has been done in the field of education under the designation of research. In fact, the term "research" has been applied to such a wide range of activities in education by so many different persons that Hayman (4) noted that it ceased to possess a single identifiable meaning. Research in education was often steered toward the interests and needs of those individuals involved at a certain period of time. Broudy noted (5) that the type of learning most popular at a particular time dictated the teaching theory that commanded the highest peak of interests.

Numerous educational innovations have been attempted to meet the individual needs of students (3). There appeared to be several main thrusts in this area of instructional theory. One of these was B.F. Skinner at Harvard University (6) in his work on the programmed approach to education. Skinner's theory primarily emphasized individualized learning with immediate reinforcement. The strength of Skinner's theory was that, in a course, objectives would be stated specifically and scientific evidence of attainment would be provided. The programmed instruction initiated by B.F. Skinner was efficient for individual pacing, especially in the development of cognitive skills and programs that required immediate reinforcement (6). Skinner's work occurred in the mid to late 1950's. Skinner's work in programmed instruction initiated an evaluative research cycle which led to the establishment of a base of solid research that influenced the design, sequence, and structure of media to be used in instruction (7).
A.W. Combs (6) was another theorist during that time period, who contributed to the ideas of individualized instruction. Combs believed it was important to develop independently strong individuals in order to meet the demands of a rapidly changing and ambiguous society. He theorized that as long as societies were simple and absolute, strong and determined frameworks were sufficient for dependent people to function effectively. If societies became less structured, people had to become stronger and more independent if they were going to continue to function in a productive manner (6).

During the early 1960's, change in educational emphasis continued to increase steadily to the point where the entire framework of educational goals, curriculum, methods, and evaluation were experiencing extensive revisions. A great deal of the work towards those revisions was initiated due to pressures and responses obtained from students. Individualized instruction continued to play a major role in those revisions (8). The contemporary theme shifted the emphasis from concern with the group, toward interest in the individual for his needs, preferences, and capabilities. This theme was interwoven in the educational research during that time.

Postlethwait (9) initiated the beginning of the audio-tutorial approach to education. In 1961 at Purdue University, Postlethwait produced supplementary tapes for his freshman botany lectures in order to help students with poor backgrounds proceed with the rest of the class. These tapes further developed into audio programs which provided a variety of learning experiences. The programs consisted of visual materials and experiments.
Due to the favorable response from students to the tapes, an experimental section of thirty-six students received audiotape programmed instruction. The students met with an instructor once a week for discussion and a quiz. This occurred during the second semester of the 1961-62 school year. At the end of the semester, the experimental group performed just as well as the conventional group on the same examination. As a result of the experiment and student input, by 1962, the freshman botany course was restructured to provide for independent study. The purpose for this application was to provide maximum educational opportunities to students from varied backgrounds possessing different interests and capabilities. In the Winnetka Plan, conducted by Carleton Washburne (10), course work was presented in self-instructional units in which the required course work in the independent units was separated from the creative group activities.

Weisgerber (9) reported that the Learning Research and Development Center at the University of Pittsburgh with the cooperation of the Baldwin-Whitehall Public Schools began the development of the Individually Prescribed Instruction (IPI) system in an attempt to identify individual learner needs. The original experimental site was in Pittsburg at a K-6 level school, Oakleaf. The areas of reading and mathematics were first stressed in the IPI program to identify the needs of the learner to monitor progress and initiate program revision and improvement (10).

In 1965, Bucklin and Postlethwait (9) became interested in the concept of individualizing study by the utilization of a group of study modules. In 1967, the American Institutes for Research and Westinghouse Learning Corporation began the development of the Program for Learning in Accordance with Needs (PLAN). Project PLAN was initiated on the basis
that the long range goals of learners varied the same as their capabilities and levels of achievement. The project was designed to accommodate these differences by organizing instructional materials into modular form to make learning more meaningful and self-motivating (8, 10). By the 1968-69 school term, the IPI project which had begun at Oakleaf, had grown to 99 demonstration sites.

Postlethwait (9) explored another instructional innovation in 1969. This concept was the minicourse. The term was applied to modules which had been developed at Purdue. The minicourse was defined as a convenient method to deal administratively and intellectually with a small unit of subject matter. By this concept, courses were divided into components which resulted in greater individualization permitting unit mastery and flexibility. The concept of minicourses spread to other colleges and universities (3).

By 1970, the basic research and development for Project PLAN had been completed. This marked the completion of a full individualized system of instruction in four disciplines at twelve grade levels (8).

The development of individualized instruction continued into the early 1970's. The focus of methods of instruction was no longer on the capabilities of the teacher, but continued to shift toward the capabilities of the learner. Institutions were becoming increasingly involved in the research and application of various forms of individualized instruction. The results of this research did not indicate significant differences in performance on standardized tests by students taught by the two methods. However, other noteworthy differences were cited. There were reports of renewed interest in educational activities, traditional
disciplinary problems decreased, attendance improved and teachers were working harder with greater satisfaction (11).

Goldschmid (12) reported on modular instruction, implementation, management, and evaluation. The author noted increased student populations, decreased financial resources, growing dissatisfaction with the educational system, and the rapid increase and change in knowledge as constituting the need for an effective means of individualized instruction.

In 1973, Roach (13) developed a self-instructional module for Quantity Food Purchasing at Kansas State University. The author recognized the need for self-instructional methods to provide frequent feedback to students, flexibility in scheduling, and additional study material in order to keep pace educationally with the continual rapid changes in information.

The continued movement toward the development of individualized instruction brought with it a diverse assortment of terms and methods of application. Minicourses and similar small units of instruction were referred to as "concept-o-pac," "instruct-o-pak," "unipak," "Learning Activity Package (LAP)," and "Individualized Learning Package (ILP)." The reference term for those methods of instruction evolved as "module" (1974) (3).

Russel (3) defined module as containing a single unit of subject matter in an instructional package which allowed the student to master one unit before he proceeded to the next. The module also utilized a variety of instructional media to improve the ability to meet the individual needs of the student. Interest and development of the modular approach to
individualized instruction continued for student instruction and teacher education (14).

The modular concept of instruction was also incorporated into the systems approach. The major advantage to this was cited as the possibility of extracting the most desirable features of the newer technologies as they were developed in order to provide optimal instructional packages. The individual remained as the key focus of attention and the center from which instructional strategies continued to spiral (15, 16).

Instructional Strategies and Evaluation for Interviewing in Health Related Professions

The concern for the development of interpersonal skills in professionals of health related fields had been developing in the educational system for many years. An early concern for interpersonal skills came with the recognition of psychiatry as a partner in the science of medicine rather than a separate medical specialty (1946) (17). A graduate and undergraduate teaching program in the psychological aspects of medicine was initiated at the University of Rochester School of Medicine in 1946 and reviewed in 1956. In conjunction with the new emphasis in the psychological aspects of medicine, the need for the development of interviewing skills became apparent. Interviewing skills were taught during the second year of the four year program at Rochester. This was accomplished by an introductory unit to the concepts of the doctor-patient relationship and the nature of communication. The introduction was followed by discussion of the process and technique of interviewing after which each student performed real interviews, with a patient, in the presence of three classmates and an instructor. The third year of
instruction was characterized by further supervision and development of medical interviewing. The student interviewed a patient in the presence of his instructor and classmates. The technique and processes of the interview were discussed and orally evaluated by the group (17).

Ten years later, the concern for methods of instruction and evaluation of interviewing techniques continued to be examined. It then was noted that evaluation was often a subjective and unquantifiable process and that objective data obtained from examinations may have related more to overall competence. In 1967, a method for quantitative evaluation of the medical interview for medical students was developed. Trained raters used a quantitative rating form with audiotapes of student interviews. Student interviews were evaluated at the beginning and end of the sophomore year. Students were evaluated again during the junior year in randomly selected interviews. It was found that the greatest amount of change in performance occurred during the sophomore course, but that little change occurred thereafter. Those students who performed poorly in the sophomore course continued to be low in class rank in the junior year. It was concluded that the audiotape feedback was a valuable teaching aid for improving performance skills in the medical interview (18).

In 1969, Froelich (19) suggested several methods for approaching the instruction of interviewing skills. The suggested instruction consisted of a series of steps to be followed, the first of which made the student aware that interviewing skills must be learned and were not easily acquired. In this approach, students progressed through a series of instructional methods beginning with role playing, a programmed manual, programmed medical interviewing films, observation of skilled interviewers, participation in interviewing patients, and finally writing of medical
histories. The use of videotapes or audiotapes were noted as profitable methods of instruction and evaluation.

In a further attempt to standardize the interview experience to permit more reliable evaluation, "simulators" were trained to play the role of mothers of ill children. This offered an interview situation which decreased the variation in interviewees and aided instructors in evaluating student performance. Senior medical students were randomly selected and informed that they would be interviewing simulators. The interviews were evaluated by trained raters. The raters used a modified form of interactional analysis and a factual checklist as tools for evaluation. Helfer and Hess (20) noted that the technique permitted measurement of individual differences and provided data for research on effective teaching methods for interviewing skills.

Research continued in the area of the instruction and development of interviewing skills for students in health care professions. A programmed manual for interviewing was devised in 1972 by Froelich (21) which consisted of instruction in various types of interview responses for medical students. A unit of interview for the reader to practice techniques of interviewing was also included in the manual.

Saltmarsh (22) reported the application of programmed instruction for interviewing skills in 1973. In the application of the development of emphatic interview skills, research conducted at Eastern Illinois University led to the conclusion that subjects from the programmed instruction tended to perform at higher levels than those who received the instruction by the traditional lecture method. Goldstein (23) and Wiener (24) made reports concerning success of audiovisual aids in effective training of interviewing techniques for medical students.
Continued efforts were made to place the instruction and evaluation of interviewing into objective and quantifiable terms. The teaching of interviewing at the Medical College of Wisconsin (1974) was based on the possibility that all responses verbally expressed in an interview fell into one of five categories: evaluative, hostile, reassuring, probing, and understanding (25). Medical students were instructed in interviewing prior to involvement with diagnosis and treatment with stress on the importance of communication with patients as individuals affected by an illness. Each student individually interviewed a hospitalized patient and then discussed the interview with other members of the student-instructor group. Following the discussions, the instructor conducted a demonstration interview.

Another study was conducted at Michigan State University to determine the effectiveness of using simulated mothers as opposed to real mothers for the purpose of teaching interviewing skills. Women were trained to give children's histories and real mothers were informed on how to give consistent histories. Helfer et al. (26) noted that the use of simulated interviewees depended on objectives of the type of experience that the instructors wished to provide. This and similar studies initiated the idea that nonprofessional teachers who have been instructed to present simulated incidents could provide another possible or additional method to teach interviewing skills (27).

Role playing by drama students and medical students at the Howard University College of Medicine (28) provided the framework for the learning processes in a communications course. The medical students discussed the roles of the participants in the health care system and effective and ineffective methods of communication. The students observed the
instructors perform correct interviews and then conducted interviews themselves with the drama students portraying the simulated patient. The interviews were videotaped which facilitated the observations of both verbal and nonverbal forms of communication.

At Wayne State University School of Medicine, the interviewing skills of twenty-two students were evaluated with ten minute interviews at the sophomore year and again at the senior level (29). The tools of evaluation consisted of interaction analysis, D/I ratio (the degree of directiveness or nondirectiveness), Video Form (10 point scale), Interview rating form (33 items to evaluate the beginning, middle, and end of the interview), a medical information checklist, and patient's ratings. The results showed a shift towards a more directive approach in interviewing style during the senior year. The use of initial exploratory question and increased empathy was demonstrated in the seniors. The deviations among raters and the variations in interpretation of data made the results difficult to assess. This difficulty further stressed the problems of providing reliable and valid measures of evaluation for interviewing skills (29).

Another model for the instruction of interviewing skills was the Rogerian core facilitative qualities model (30). The model was based on the assumption that interviewing is characterized by empathy, nonpossessive warmth and interpersonal genuineness. The goals of instruction based on the model were to develop those characteristics and to increase comfort through a broad range of content (31).

As recent as 1976, there still appeared to be a need for more recognition, implementation, and evaluation of interpersonal skills among health care professionals. Boles expressed concern (32) for the apparent
deficiency in educational systems for health care professionals and noted that efforts toward further development should continue and certainly be extended.

Interviewing in Dietetics

The Journal of the American Dietetic Association has been replete with references to methods, types, and instruction of interviewing. In some instances, interviewing was incorporated into the discussion of methods of nutritional care or the management of employees. One of the earlier remarks on interviewing appeared in 1947 in an article on the nutritional care of obese patients. The attitude and impression which the nutritionist created in the first interview was identified as essential to motivate the patient successfully. Later, a reference was cited in this journal to a film that had been produced at Cornell University on how to interview "job seekers." The salient points of a productive interview were listed as gaining information, giving information, and making a friend (33).

A dietetic intern reported on her experience with the study of interviewing technique using a "wire recorder." Interviews were recorded and therefore provided a permanent record for evaluation and improvement of technique. The demonstration interview provided an effective means to study the principles and techniques of interviewing (34).

A manual on interviewing was published in 1952 by the Welfare Council of Metropolitan Chicago (35). Even though the manual was directed toward volunteers in social and public agencies, it provided valuable information for anyone involved in interviews with patients, employees, or volunteers.
Interviewing techniques discussed in the manual were rapport, listening, questioning and observation.

Again, the importance of the role and delivery of the interview while working with the nutritional care of patients was reported. Babcock (36) emphasized the importance of a warm and unjudging attitude in the first interview. Listening skills, the time and setting, and the productive channeling of patient anxiety were other factors noted as important for effective interviewing.

Not only was the interview being recognized as a valuable tool for patient care and a concern in education, it was being scrutinized also for effective applications for employees. An article was published in 1953 in which Christenson (37) discussed the contents of the "corrective interview." The author stated the important points to consider before, during, and after the interview. Helpful suggestions on techniques for listening and questioning with a reminder card for the interviewer were provided to facilitate the corrective interview.

Studies comparing group therapy and the individual clinic interview were conducted to determine if one method was superior in the treatment of obesity. The researchers of one study found no significant difference between the two methods. The authors noted that patient motivation to reduce weight could be a factor, but there was no method to estimate motivation (38).

Munyes (39) compared the same two methods for the treatment of obesity and found the mean performance index indicated that the dietetic interview was more successful than the group discussion. The author provided a note of caution since the observations were limited to
forty-eight subjects and at some points of the study, the group method was more satisfactory.

While the application of the interview was expanding, the techniques of interviewing were becoming more sophisticated as productive methods for conducting the interview were developed. These focused on the needs of both the interviewer and the interviewee. White (40) and Church et al. (41) wrote on the importance of listening and objectivity for productive interviews. The importance of developing a cooperative working relationship through effective interview techniques was continually expressed.

Tools to aid the interviewer and facilitate the interview were developed and revised. One example was in the area of appraisal interviews. Management personnel apparently needed help in handling appraisal interviews to make them productive and beneficial for the employee. Interview worksheets indicating key points for discussion to which both parties might react were suggested as a supplement to the interview (42).

The importance of listening was further stressed as necessary to develop empathy, an essential component of an effective interview. Goldfaden (43) and Leopold (44) noted empathy with insight was an important factor to develop in those individuals who performed interviews. The interviewer was also cautioned to know his individual motivating factors before attempting to evaluate objectively information given to him in the interview. The importance of knowledge of the interviewer's own motivations was emphasized in all types of interviews, especially in counseling. The counseling type of interview played an important role in a variety of settings (45). Once the interviewer realized the complexity of his own motivation, Magee (46), Loban (47), and Carr (48) indicated methods and
precautions needed to facilitate the search for sources of motivation in the interviewees.

In 1969, public health nurses worked with Papago Indians and found a necessity for unusual variation in the interview (49). The Papago mothers did not comprehend the usual questioning techniques. Therefore the interviewers prepared a critical incident type of anecdote based on personal experience, shared it with the Papago mother, and asked if the interviewee had a similar experience. When the interviewee acknowledged a similar experience, the interviewer asked for a detailed description. The technique of "parallel experience" met with a high degree of success in obtaining information.

In 1970, an article was published (50) reporting the use of videotapes to teach interviewing techniques. The videotapes were produced to teach recognition of effective and ineffective behavior of an interviewer. Principles of the interview were outlined and ten interviews were described in which the observer was offered a choice of interviewer's actions at interrupted intervals and then provided with the consequences of each choice. The programmed method of instruction was shown to contribute positively toward changing interview behavior.

While interest in educational methods sporadically received attention, applications of the interview appeared (51) continuously in a variety of forms. The structured group interview was one of these forms. The procedure was developed as a tool for working with groups of 20-50 individuals as a means of initiating change. The structured group interview was proposed as a vehicle for introducing change to groups of people.

The majority of the articles in the Journal of the American Dietetic Association seemed to be oriented more toward interview methods whereas
articles in the medical journals, particularly the Journal of the American Medical Association were more concerned with instructional methods.
METHODOLOGY

Sampling and Assignment to Groups

The research design encompassed the simultaneous teaching of interviewing techniques by individual self-instruction and traditional lecture methods for comparison of effectiveness. The subjects were those students enrolled in the junior level course, "Instructional Competencies for Dietetic Students," course number 660-460, at Kansas State University in the College of Home Economics.

In August of 1976, the proposal for the research project was submitted to the Committee for Research, Development, Demonstration, and Other Activities Involving Human Subjects at Kansas State University for approval (52). The committee approved the research by letter in August, 1976 (Appendix C).

Sample Population

The population for the research consisted of twenty-nine students enrolled in the 1976 fall term of the course. The computer print-out of the class enrollment was utilized for the random division of the class into two groups. The experimental group was designated as group one and the control as group two. Group two was selected by utilization of a table of random numbers (53). The experimental group was destined for self-instruction and the control group for traditional methods of instruction.

The students enrolled in the course were told the purpose of the unit on interviewing and informed that withdrawal from the research would be
permissible. The instructions were written and read to the participants. A copy of the instructions appears in Appendix C. Prior to participation in the project, the students gave their written consent by signing a form specified in the Handbook for Research, Development, or Other Activities Involving Human Subjects (52). The participants were allowed to read the proposal for the research project after the unit was completed to attempt to minimize the influence the proposal contents may have had on the participants' responses to the evaluative instruments.

Development of Self-Instruction Unit

The initial subject matter for the unit on interviewing was developed during the 1976 spring term preceding the research. The researcher taught the interviewing unit of the course, "Instructional Competencies of Dietetic Students," by the lecture method. Course objectives for the cognitive domain were written for the unit taught in the spring term. The original course objectives appear in Appendix B. The unit on interviewing in the spring term was conducted in eight one-hour class sessions. In the final week of the unit, the examination was given, graded, and discussed by the class.

After the spring semester, the materials were revised and served as the base for the development of the self-instruction package by the same instructor. According to research, differences in groups have been minimized when the same instructor taught randomly divided or matched groups in a course utilizing two methods of instruction (2).

In the fall semester, the instructor, who designed the self-instruction unit, taught the course by traditional methods. The interviewing unit was revised for a four week period. Three weeks of the unit were
planned for instruction and the fourth week for examination and evaluation. Each section of the interviewing unit was prepared in steps which were to be completed in sequential order to facilitate comprehension of the subject matter. The same order of presentation was used in both the lecture and the self-instruction. The package was divided into seven sections.

Section I

An introduction to the unit and the essential characteristics of the interview were chosen for the first unit in order to provide a basic framework from which to further develop the structure of the interview. The first section was entitled, "Introduction to the Interview and Listening Skills." The media utilized were an audiotape, reading assignments, and a videotape. For the first step, the script for the introductory tape was written and the information was adapted from a slide-tape presentation produced by the University of Missouri (54). An outline of the script was provided as a guide for the student. The second assignment was based on a journal article by Charles A. Smith (55) who discussed the importance of both verbal and nonverbal communication in relation to an individual's perception of his surroundings and to words as barriers or carriers of thought.

Chapter five from the book, *I'm OK--You're OK* (56), was the third assignment. The text provided a good description of the Parent-Adult-Child (PAC) approach to communication. It appeared that for the students to have an increased awareness of the roles played in the interview situation, an introduction to the PAC approach was beneficial. Reference to the PAC approach was made in another assignment and it was known that the students would be exposed to the concept again in the senior year.
Up to this point, the materials had covered the function of the interview and the importance of behavior in relation to the interviewing process. The next step was to discuss the concept of listening and its importance in the interview. Non-evaluative listening, interpretation of feelings, and the communication of acceptance of feelings were topics covered in a paper entitled "Micro-counseling: training in listening skills" (57), which was written at Kansas State University. This was adapted in the fourth reading assignment of the unit. The paper included an exercise in the interpretation of feelings. A response sheet was developed which provided sample reaction. The exercise and response sheet were developed as handouts and utilized as an exercise in the recognition of how people express themselves.

After the concepts of listening and acceptance had been covered, an article on probing as a method to stimulate discussion and obtain more information was included as the fifth assignment in section I (58). This was presented as a reading assignment.

The sixth assignment was also a reading entitled "How to Interview" in **Interviewing: Its Principles and Methods** (59) which provided a means for interrelating the five previous assignments. In this text, observation, listening and rapport were discussed and interview settings were provided. The seventh assignment was an introductory statement written to stress important points to be observed and provide background information for a videotape. A videotape of a discussion between a clinical instructor and students on interviewing of patients was produced in the media center. A preview of this videotape resulted in the selection of a fifteen minute sequence for the eighth assignment. The videotape illustrated listening,
acceptance, probes, and the adult to adult approach through role playing and discussion.

Section II

The second section of the interviewing unit covered the topic of questioning and was labeled, "The Question and the Interview." This section was developed and delivered in a slide-tape presentation consisting of 46 slides entitled, "What kind of Question is that?" Open and close-ended questions were discussed with their application, advantages, and disadvantages (60). Other types of questions were introduced, but the major emphasis was placed on closed and open-ended questions. A printed visual accompanied the slides (61).

To involve the students further, the second assignment for the section was an exercise in the recognition of open and close-ended questions. This was incorporated into the slide-tape presentation. The format for the exercise was adapted from Canada and Rockwell (57). Slides were produced for each question and the students were provided with a handout on which they were allowed to answer. Another handout was developed to provide the correct answers. These were also provided as printed visuals which accompanied the script. After the exercise, probes were reemphasized with the application to questioning skills. The script was concluded by noting the importance of the application of listening and questioning skills in the manner that would best meet the needs of the situation. A fourth printed visual was added that reviewed open and close-ended questions (57).

When the script was completed, the artist in the media center developed appropriate slides using cartoon characters. Pictures of graduate
students posed in interview settings were also taken and made into slides. An audiotape of approximately 30 minutes for the script was made in a soundproof recording studio at Kansas State University.

Section III

The third section was entitled, "Planning, Phases, and Components of the Interview." Objectives for the section were developed and the script for the section was written in June. The materials for this section were given in a videotape presentation.

The information for planning the interview contained the setting, time allotment, and knowledge of the interviewee. The reference used for planning the interview was Garrett (59) and the information was adapted to the clinical and management areas of dietetics and a few examples were added. Once the student was introduced to what should be considered in the planning, the phases of the interview were discussed. These phases were the opening, the developmental, and the closing. The reference for this part of the script was the tape produced at the University of Missouri-Columbia (54).

The components of the interview which were discussed were objectivity, rapport, attitude, initiative, approach, specificity, singleness of idea, language, handling the pause, listening, note taking and discretion (54). A videotape of the lecturer making the presentation was produced. Due to the length of the script, the videotape was made in two parts. The first part covered plan and phases of the interview and was approximately 30 minutes long. Part II of the presentation covered the components of the interview and was approximately 20 minutes viewing time. A handout entitled "Puzzle Parts to the Interview Picture," accompanied the videotape.
Section IV

The fourth section of the interviewing unit covered the patient and the interview. The media for "The Patient and the Interview" was audiotapes and a reading assignment. This lesson covered how the interview technique could be used to counsel patients on nutritional care. The section began with discussing the importance of a cordial introduction to the patient to facilitate the development of rapport. The type of information needed from the patient and methods of acquiring the necessary information were discussed following the introduction. This included the 24 hour recall, diet history, and the patient's knowledge of the diet (62, 63, 64).

The second major emphasis of the section was on the procedure involved in planning and conducting the patient interview. This was followed by consideration of patients who were difficult to teach. Five printed visuals were also prepared to accompany the script. A two part audiotape was provided for this subject matter.

Section V

The fifth section of the interviewing unit was entitled, "The Employee and the Interview." The section consisted of a series of five reading assignments (Appendix B) and an audiotape. The objectives were written (Appendix B) and the references were compiled in an attempt to point out the problems in communication, provide information on techniques and types of interviews, expose the legal regulations involved in the interview process, and provide an example of an interviewing situation. The students were also assigned an audiotape which portrayed a manager and an employee in a disciplinary interview (65).
Section VI

Section VI of the interviewing unit entitled, "Counseling and Appraisal Interview," was presented in two reading assignments (Appendix B). The objectives were written (Appendix B) and appropriate references were chosen. The students would be more likely involved in these two types of interviews and for this reason, a section was devoted to these two particular types. The section was presented in a written text which first gave an introduction to the counseling interview. It was noted that the counseling interview applied to both the patient and the employee and cited examples. The second reading assignment was an introduction to the appraisal interview. The appraisal interview was identified as an evaluative tool used by the dietitian to review an employee's performance and to develop and adjust individual goals compatible with departmental goals.

Section VII

The purpose for the last section of the unit was for review and application and was entitled, "The Interview in Action." The section consisted of a variety of readings and activities (Appendix B). The content for the first reading assignment was taken from the text, The Skills of Interviewing (66), and adapted to a scene relevant to dietetics.

The second assignment in the section was a case study or incident. It was about a senior dietetic student who was assigned to conduct performance reviews for two cook assistants in the bakery unit of the food production area. A study guide for the case study was developed which gave seven thought provoking questions which caused the student to consider the planning, phases, and components of the interview to the situation.
The third assignment was entitled, "Brain Stretchers," and consisted of seven real life situations to which the student was to consider how to react. A reaction sheet was also developed which gave possible means by which to deal with the problem and actions to follow to further deal with the situation.

Final Preparation of the Instructional Package

For each section a cover sheet was written which stated that the information and materials for the instructional packet were not original. The references for each unit were cited in the bibliography for that unit and the ideas, information, examples, and learning aids were taken directly from the references and adapted to fit the sequence of the self-instruction packet. This was done to emphasize that the interviewing unit was a compilation of previous work in interviewing which was organized and adapted in a manner to aid dietetic students.

The cover sheet was followed by a title page that gave the section number and the title of that section. Instructions and a tentative schedule for completion accompanied each section. Assignment and objectives followed for the section.

Evaluation Review of Materials

Before the interviewing unit was initiated, an evaluation review of materials was conducted. Letters, soliciting participation in the review, were written to twelve instructors, dietitians and graduate students. The information sent to each reviewer included an explanatory letter, a reviewer questionnaire, the time schedule for reviewing materials in the media center, a copy of the introductory handout to be given to the
subjects of the experimental group, and a two page evaluation form. There were seven evaluation forms provided for review of each section. The evaluation forms were adapted from those already used to review materials in the media center. A copy of the correspondence sent to the reviewers appears in Appendix C.

The review was scheduled for October 7th through October 15th. The packets for the seven sections of the interviewing unit were made available in the media center and checked out to the participants by the media personnel. A box was provided for the reviewers to deposit their evaluations as they were completed. Ten of the twelve reviewers responded for sections I-IV and eight reviewers responded to sections V-VII.

The evaluation form provided space for comments and several helpful suggestions were made. For section I, there were several comments that the reading materials were visually unclear. These materials were reprinted to improve visual clarity. Background noise was found to be disturbing on the audiotape. The tape was recorded again in a soundproof recording studio on the Kansas State campus.

For section II, background noise and abrasive beeps were noted and the tapes were recorded again in the same studio. The slide presentation was well received. The reviewers commented that Section III, which was a videotape, was too long to maintain students' attention. The original tape was then divided into two parts to allow the students a convenient stopping point. An evaluator also suggested the addition of the word "component" to the objectives. An objective was written and added to the section.
Section IV presented no major problems. One reviewer noticed "marital status" appeared as a category on the diet history form. This was deleted from the form.

For section V, some of the evaluators commented on a visually unclear reading assignment. The assignment was recopied for clarity. In this section, the employee and the interview were discussed and one evaluator suggested the addition of the do's and don'ts for interviewing as given in the Affirmative Action guidelines. These guidelines were added to the section and listed as an assignment.

The visuals for section VI were recopied for clarity and a change was made in the script as a result of the comments on the evaluation forms. The last section was generally viewed as a good conclusion to the unit.

Preparation for Student Use

The final corrections in each section were completed and each section was compiled in the proper order and placed into color coded folders. The folders for each section contained all the necessary materials for the lesson with the exception of videotapes or slides which were in separate folders in the same color code. Handouts that were provided for a section were placed in an additional folder of the same color as the section folder.

The media personnel were instructed about the contents of each section and arrangements were made for checking out the materials to the students. The materials remained in the media center. A list of the assignments for each section, and order in which they were to appear, and the names of the students involved were also prepared and remained in the media center with the materials.
Development of Evaluation Instruments

An objective cognitive examination given at the completion of the interview unit had been piloted in the 1976 spring term. Guidelines for constructing the examination were taken from Gronlund (67). After construction, it was reviewed by three instructors and three graduate students from the Department of Dietetics, Restaurant, and Institutional Management after which a few changes were made in sentence structure for clarity. The original examination consisted of twenty-five objective questions.

After administration to the students in the spring semester, the examination was graded by the Kansas State University Computing Center using the Optimal Mark Reader (OMR) feature on the IBM 2501 card reader (68). There were 100 total points possible on the examination and the results showed the mean score was 86.88 and the Kuder-Richardson Reliability Coefficient (a measure of reliability acceptable at the .60 level) was 0.77. Question number fifteen was altered when the examination was rewritten because only 60 percent of the students answered it correctly which was low in comparison with the overall performance. Twenty-five more questions were added to the original examination to provide a total of 50 questions. Questions were added to improve the reliability, since reliability has been noted to increase with the number of items (69). The additional twenty-five questions were reviewed by four instructors and three graduate students before the examination was administered to the students in the 1976 fall term of the course. All questions on the examination were written by the researcher and developed from the course objectives and course content. A copy of the objective examination developed to evaluate the cognitive domain appears in Appendix A.
In addition to the cognitive examination, a semantic differential scale was developed to obtain information related to the subjects' attitudes toward three facets of interviewing; the interview, the interviewer, and the interviewee. The semantic differential contained fifteen bipolar pairs. The pairs were randomly assigned with respect to polarity and sequence. The fifteen pairs selected were chosen from those used by Hoover (1973) (70) which were found to be reliable at or beyond the .05 level, three of which were developed by Osgood (71). A seven-step scale was used between each pair as Hoover reported research to indicate such scales yielded psychological units of equivalent value for the judgment process. The negative poles were assigned the value of one and the positive poles were assigned the value of seven. Instructions for the semantic differential used by Hoover (70) were utilized for this research. The semantic differential was administered to five graduate students in the Department of Dietetics, Restaurant, and Institutional Management. Thereafter, the instructions were altered for clarity. The semantic differential was then given to the twenty-five students in the 1976 spring term of the course as a pilot to test for clarity. The students reported no problems in the use of the instrument. Appendix A contains a sample of the semantic differential.

An additional evaluation tool for the affective domain was devised. A questionnaire was developed to test for reactions to the unit on interviewing according to the ratings for personal value, interest, and instructional method. The effectiveness of the instructional methods utilized in the unit were also evaluated with this tool. The questionnaire was adapted from research conducted by Roach (13) (1973). The same format for testing reactions to personal value, interest, and instructional
method was used with a change in terminology from quantity food purchasing
to interviewing. In place of the questions used by Roach to evaluate the
unit, the seven sections from the interviewing unit were applied for
evaluation of personal value, interest, and instructional method. To test
for effectiveness, the same format used by Roach was adapted to the inter-
view and objectives from the seven sections of the interviewing unit were
applied for students to rate. A sample of the questionnaire for the
interviewing unit appears in Appendix A.

Procedure

The introduction to the interviewing unit for study was presented
during the regular class period. All students were present with the
exception of three for which the same procedure was followed. The paper
titled, "Instructions to be read to all participants prior to the unit on
interviewing," was read to all students. A copy of this paper appears in
Appendix C. After the initial instructions were read the students signed
the "Informed subject consent form." The form appears in Appendix C. The
students were then assigned to their respective groups. There was a total
of twenty-nine students, sixteen students participated in the control
group and thirteen students participated in the experimental group. All
the students received the general objectives and a partial bibliography as
a springboard for personal research. These materials appear in Appendix
C. The students in the independent study group received a handout listing
the media center hours and the interviewing independent study instructions.
A sample of this handout also appears in Appendix C. The semantic differ-
ential scale on interviewing was administered to all students and the
independent study was coded with an asterisk. There was no other form of identification used on the scales to provide for anonymity of the subjects.

The instruction for the interviewing unit was conducted in a three week period. During this time, the control group met in the regular classroom at the scheduled class time and received the same information as the experimental group. The experimental group did not meet during the scheduled class time, but had the three weeks free to complete the self-instructional sections provided in the media center.

In the lecture group, the students were given the objectives at the beginning of each lecture. These objectives were identical to those given to the self-instruction group. The control group was presented the same information through lecture as the experimental group received through the self-instructional package.

Both the control group and the experimental group met together in the usual classroom during the scheduled time period on the fourth week. All the students took an identical one-hundred point objective examination. The numbered answer cards identified the group in which the student had participated. After the examination, each student completed a semantic differential scale on interviewing and a post questionnaire for evaluation of personal value, interest, instructional method and effectiveness. The semantic differential completed by the experimental group was identified by an asterisk and the post questionnaire provided a section where the student identified his group.

The fourth week, the students met together again to review the results of the examination. The computer cards were arranged into five groups each of which contained the correct answers to all questions. The students were assigned to the group containing their computer cards. The
students then played a game in which the correct answer was given to any student who had missed the question. This stimulated discussion and the rationale for correct answers was found by a team effort.

**Statistical Analysis**

The results from the semantic differential and the post questionnaire for personal value, interest, instructional method and effectiveness were evaluated for two independent samples. The data from the semantic differential scales from the experimental and control groups were evaluated with a t-test for two independent samples with an acceptable level of .05 on a two-tail test (72).

The examination was graded by the Kansas State University Computing Center using the Optimal Mark Reader (OMR) feature on the IBM 2501 card reader (67). The results of the examination were analyzed with a t-test for two independent samples to compare differences in learning in the cognitive domain with acceptance at .05 (72).
RESULTS AND DISCUSSION

Cognitive and Affective Domains of Learning

Cognitive Domain

A 50-item multiple choice test was administered following the interviewing unit to measure learning in the cognitive domain (Appendix A). Item analysis of the test questions is included in Appendix A, Table 1. The reliability coefficients for the examination for the control (lecture) group and the experimental (self-instruction) group were 0.58 and 0.75 respectively. The mean scores for each group appear in Table 2. The mean score for the experimental group was slightly higher, but the difference as indicated by the t-test was not significant. The performance of the control and experimental groups in the cognitive domain was comparable and therefore both methods appeared to be equivalent means of transmitting knowledge for the interviewing process.

Table 2: Mean scores for the examination in the cognitive domain for control and experimental groups

<table>
<thead>
<tr>
<th>groups</th>
<th>N</th>
<th>mean(^1)</th>
<th>s.d.</th>
<th>t value(^2)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>control (lecture)</td>
<td>16</td>
<td>86.12</td>
<td>4.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>experimental (self-instruction)</td>
<td>13</td>
<td>87.69</td>
<td>5.34</td>
<td>0.85</td>
<td>0.40</td>
</tr>
</tbody>
</table>

\(^1\)Maximum score = 100.

\(^2\)t for two independent samples.
Affective Domain

Semantic Differential. Semantic differential scales were administered both before (pretest) and after (post test) the interviewing unit for both methods to measure changes in attitudes toward the interview, the interviewer, and the interviewee. The results of the semantic differential scale for the variable, the interview, appear in Table 3.

Interview. The difference in attitude toward reassurance in the interview shown by the experimental group was significant at \( P = 0.028 \). The experimental group had a lower mean score than the control group before taking the interviewing unit.

The control group showed a significant difference in the value of the interview after instruction \( P = 0.025 \). The low pretest mean may have been due to disinterest or lack of understanding of the interview. Both groups had identical post test mean scores.

The self-instruction group showed a significant difference in attitude toward the completeness of the interview after finishing the unit at the \( P = 0.011 \) level. The experimental group initially had a lower mean score than the control group. Comparison of the pretest scores of the two groups on the attitude toward completeness of the interview indicated a significant difference at the \( P = 0.025 \) level.

The experimental group had a change in attitude toward the orderliness of the interview which was significant at the \( P = 0.012 \) level. There was also a significant difference in the attitude toward the pleasantness of the interview for the experimental group \( (P = 0.049) \). The mean scores of both groups on the descriptor; rigid-flexible, increased
Table 3: Comparison of pretest and post test mean scores on a semantic differential scale for the control and experimental groups, singly and combined, on the concept, interview

| descriptors<sup>1</sup> | lecture group | | | | self-instruction group | | | | comparison | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | pretest | post test | t<sup>3</sup> | pretest | post test | t | pretests | post tests | t | t |
| negative - positive<sup>2</sup> | | | | | | | | | | |
| frightening | reassuring | 3.50 | 4.75 | 1.90 | 3.08 | 4.46 | 2.39<sup>*</sup> | | | | |
| unwilling | willing | 4.64 | 5.69 | 1.83 | 4.00 | 4.92 | 1.85 | | | 1.10 | 1.59 |
| dull | exciting | 5.71 | 5.06 | 1.34 | 4.77 | 5.23 | 0.95 | | | 1.91 | 0.35 |
| nonessential | essential | 5.79 | 6.38 | 1.08 | 6.38 | 6.31 | 0.20 | | | 1.26 | 0.14 |
| unreliable | reliable | 5.07 | 5.69 | 1.69 | 4.85 | 5.62 | 1.73 | | | 0.51 | 0.20 |
| worthless | valuable | 5.43 | 6.31 | 2.40<sup>*</sup> | 5.85 | 6.31 | 1.34 | | | 1.01 | 0.02 |

<sup>1</sup>Bipolar pairs were randomly assigned to placement of polarity and sequence on instrument.

<sup>2</sup>Negative = 1; positive = 7.

<sup>3</sup>t test for two independent samples.

*Significant: (P ≤ 0.05).
<table>
<thead>
<tr>
<th>descriptors</th>
<th>lecture group</th>
<th></th>
<th>self-instruction group</th>
<th></th>
<th>comparison</th>
<th>lecture and self-instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pretest</td>
<td>post test</td>
<td>pretest</td>
<td>post test</td>
<td></td>
<td>pretests</td>
</tr>
<tr>
<td></td>
<td>mean s.d.</td>
<td>mean s.d.</td>
<td>t value</td>
<td>mean s.d.</td>
<td>mean s.d.</td>
<td>t value</td>
</tr>
<tr>
<td>negative - positive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>insignificant</td>
<td>6.00 ± 0.96</td>
<td>5.94 ± 1.44</td>
<td>0.14</td>
<td>5.85 ± 1.14</td>
<td>6.46 ± 0.52</td>
<td>1.77</td>
</tr>
<tr>
<td>significant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>incomplete</td>
<td>5.07 ± 1.39</td>
<td>5.50 ± 1.03</td>
<td>0.95</td>
<td>3.85 ± 1.28</td>
<td>5.15 ± 1.14</td>
<td>2.75*</td>
</tr>
<tr>
<td>complete</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>chaotic</td>
<td>5.00 ± 1.66</td>
<td>5.75 ± 1.49</td>
<td>1.30</td>
<td>5.38 ± 0.87</td>
<td>6.31 ± 0.85</td>
<td>2.73*</td>
</tr>
<tr>
<td>orderly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unfriendly</td>
<td>5.50 ± 1.16</td>
<td>6.00 ± 0.82</td>
<td>1.35</td>
<td>5.23 ± 0.93</td>
<td>5.54 ± 1.50</td>
<td>0.63</td>
</tr>
<tr>
<td>friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unpleasant</td>
<td>5.57 ± 1.16</td>
<td>5.50 ± 1.41</td>
<td>0.15</td>
<td>4.62 ± 1.32</td>
<td>5.62 ± 1.12</td>
<td>2.08*</td>
</tr>
<tr>
<td>pleasant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bad</td>
<td>5.50 ± 1.09</td>
<td>5.56 ± 1.41</td>
<td>0.14</td>
<td>5.00 ± 0.93</td>
<td>5.77 ± 1.09</td>
<td>1.95</td>
</tr>
<tr>
<td>good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rigid</td>
<td>3.85 ± 2.03</td>
<td>5.69 ± 1.70</td>
<td>2.65*</td>
<td>5.23 ± 1.36</td>
<td>5.92 ± 1.26</td>
<td>1.35</td>
</tr>
<tr>
<td>flexible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>slow</td>
<td>4.36 ± 1.74</td>
<td>4.75 ± 1.12</td>
<td>0.72</td>
<td>4.54 ± 1.50</td>
<td>4.23 ± 1.48</td>
<td>0.53</td>
</tr>
<tr>
<td>fast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>deceitful</td>
<td>4.71 ± 1.38</td>
<td>5.38 ± 1.02</td>
<td>1.47</td>
<td>4.77 ± 1.16</td>
<td>5.31 ± 1.11</td>
<td>1.21</td>
</tr>
<tr>
<td>candid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
after instruction, but that of the control group was significant 
(P = 0.013).

**Interviewer.** The results for the semantic differential scale for the
variable, the interviewer, appear in Table 4. The experimental group
showed a significant difference for the descriptors; frightening-reassuring,
in relation to the interviewer (P = 0.009). The mean post test score
of the experimental group was lower than that of the control group. How-
ever, the self-instruction group accomplished a significant gain because
the mean pretest score was somewhat lower than that of the control group.

There was a significant difference between the two groups after com-
pleting the unit in attitude toward the willingness of the interviewer
(P = 0.024). The control group reported higher mean scores than the
experimental group both before and after instruction.

For the descriptors; dull-exciting, the difference between the pre-
test and post test values for the experimental group was significant at
P = 0.017. Both groups had an increase in mean scores toward viewing the
interview as exciting.

The difference between the pretest and post test mean scores of the
lecture group was significant at P = 0.045. For the descriptors; worthless-valuable, neither group had a significant gain in mean scores.
However, comparison of the post test mean scores did show a difference
significant at P = 0.046.

The pretest and post test mean scores of the experimental group of
the descriptors; incomplete-complete, indicated a gain in semantic rating
significant at P = 0.009. The semantic rating on the descriptors; rigid-
flexible, by the experimental group before and after the unit showed an
Table 4: Comparison of pretest and post test mean scores on a semantic differential scale for the control and experimental groups, singly and combined, on the concept, interviewer

<table>
<thead>
<tr>
<th>descriptors&lt;sup&gt;1&lt;/sup&gt;</th>
<th>lecture group</th>
<th></th>
<th>self-instruction group</th>
<th></th>
<th>comparison</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pretest</td>
<td>post test</td>
<td>pretest</td>
<td>post test</td>
<td>lecture and self-instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mean</td>
<td>s.d.</td>
<td>mean</td>
<td>s.d.</td>
<td>t value</td>
<td></td>
</tr>
<tr>
<td>frightening</td>
<td>4.64 ±1.78</td>
<td>5.88 ±1.54</td>
<td>4.00 ±1.78</td>
<td>5.77 ±1.36</td>
<td>2.85*</td>
<td>0.94 ±0.20</td>
</tr>
<tr>
<td>reassuring</td>
<td>5.71 ±1.38</td>
<td>6.43 ±0.63</td>
<td>5.08 ±1.50</td>
<td>5.69 ±0.94</td>
<td>1.25</td>
<td>1.15 ±2.43*</td>
</tr>
<tr>
<td>unwilling</td>
<td>4.50 ±1.74</td>
<td>5.63 ±1.50</td>
<td>4.46 ±0.97</td>
<td>5.38 ±0.87</td>
<td>2.65*</td>
<td>0.07 ±0.54</td>
</tr>
<tr>
<td>willing</td>
<td>5.71 ±1.07</td>
<td>6.31 ±1.49</td>
<td>5.92 ±1.12</td>
<td>6.00 ±0.81</td>
<td>0.20</td>
<td>0.50 ±0.72</td>
</tr>
<tr>
<td>dull</td>
<td>5.36 ±1.08</td>
<td>6.13 ±0.89</td>
<td>5.23 ±1.48</td>
<td>5.31 ±1.55</td>
<td>0.13</td>
<td>0.25 ±1.69</td>
</tr>
<tr>
<td>exciting</td>
<td>5.79 ±1.42</td>
<td>6.56 ±0.62</td>
<td>5.38 ±1.56</td>
<td>5.84 ±1.06</td>
<td>0.88</td>
<td>0.70 ±2.14*</td>
</tr>
<tr>
<td>nonessential</td>
<td>4.00 ±1.78</td>
<td>5.77 ±1.36</td>
<td>4.46 ±0.97</td>
<td>5.38 ±0.87</td>
<td>2.65*</td>
<td>0.07 ±0.54</td>
</tr>
<tr>
<td>essential</td>
<td>5.71 ±1.38</td>
<td>6.43 ±0.63</td>
<td>5.08 ±1.50</td>
<td>5.69 ±0.94</td>
<td>1.25</td>
<td>1.15 ±2.43*</td>
</tr>
<tr>
<td>unreliable</td>
<td>4.50 ±1.74</td>
<td>5.63 ±1.50</td>
<td>4.46 ±0.97</td>
<td>5.38 ±0.87</td>
<td>2.65*</td>
<td>0.07 ±0.54</td>
</tr>
<tr>
<td>reliable</td>
<td>5.71 ±1.07</td>
<td>6.31 ±1.49</td>
<td>5.92 ±1.12</td>
<td>6.00 ±0.81</td>
<td>0.20</td>
<td>0.50 ±0.72</td>
</tr>
<tr>
<td>worthless</td>
<td>5.36 ±1.08</td>
<td>6.13 ±0.89</td>
<td>5.23 ±1.48</td>
<td>5.31 ±1.55</td>
<td>0.13</td>
<td>0.25 ±1.69</td>
</tr>
<tr>
<td>valuable</td>
<td>5.79 ±1.42</td>
<td>6.56 ±0.62</td>
<td>5.38 ±1.56</td>
<td>5.84 ±1.06</td>
<td>0.88</td>
<td>0.70 ±2.14*</td>
</tr>
</tbody>
</table>

<sup>1</sup>Bipolar pairs were randomly assigned to their placement of polarity and sequence on instrument.

<sup>2</sup>Negative = 1; positive = 7.

<sup>3</sup>t test for two independent samples.

*Significant: (P ≤ 0.05)
<table>
<thead>
<tr>
<th>descriptors</th>
<th>lecture group</th>
<th>self-instruction group</th>
<th>comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pretest</td>
<td>post test</td>
<td>pretest</td>
</tr>
<tr>
<td>negative</td>
<td>positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>insignificant</td>
<td>significant</td>
<td>5.64 ± 1.60</td>
<td>5.31 ± 1.65</td>
</tr>
<tr>
<td>incomplete</td>
<td>complete</td>
<td>5.00 ± 1.62</td>
<td>4.38 ± 1.39</td>
</tr>
<tr>
<td>chaotic</td>
<td>orderly</td>
<td>5.14 ± 1.83</td>
<td>5.92 ± 1.19</td>
</tr>
<tr>
<td>unfriendly</td>
<td>friendly</td>
<td>5.71 ± 1.20</td>
<td>5.54 ± 1.39</td>
</tr>
<tr>
<td>unpleasant</td>
<td>pleasant</td>
<td>5.29 ± 1.86</td>
<td>5.54 ± 1.39</td>
</tr>
<tr>
<td>bad</td>
<td>good</td>
<td>5.64 ± 1.01</td>
<td>5.15 ± 1.34</td>
</tr>
<tr>
<td>rigid</td>
<td>flexible</td>
<td>5.07 ± 1.73</td>
<td>5.08 ± 1.50</td>
</tr>
<tr>
<td>slow</td>
<td>fast</td>
<td>4.64 ± 1.39</td>
<td>4.85 ± 0.98</td>
</tr>
<tr>
<td>deceitful</td>
<td>candid</td>
<td>4.71 ± 1.33</td>
<td>5.00 ± 1.47</td>
</tr>
</tbody>
</table>
increase which was significant at $P = 0.038$. The control and experimental mean scores were comparable for this variable prior to instruction, and the experimental group perceived the interviewer as more flexible after instruction.

**Interviewee.** The results of application of the semantic differential scale for the variable, the interviewee, are shown in Table 5. For the descriptor, frightening-reassuring, the pretest and post test mean scores of the experimental group showed an increase significant at $P = 0.030$. The experimental group had a significant difference between the pretest and post test mean scores for the descriptor, unreliable-reliable ($P = 0.045$).

All mean scores for each descriptor in both groups increased after instruction. The significant differences in mean scores between the two groups may have been affected by several factors. Misunderstanding of the instrument or lack of knowledge of the total interview process may have affected both the pretest mean scores. Furthermore, the post test mean scores may have been influenced by familiarity with the instrument and a better understanding of the interview process.

Significant differences between the two groups may also have been influenced by attitudes toward the method of instruction. It is also possible that the two groups were not comparable in their knowledge and experience in the interview process and this would contribute to significant differences in mean scores. During the interviewing unit, some students may have had an interview experience in another classroom, job, or personal interview that may or may not have influenced their interpretation of the semantic differential scale.
Table 5: Comparison of pretest and post test mean scores on a semantic differential scale for the control and experimental groups, singly and combined, on the concept, interviewee

| descriptors 1 | lecture group | | | self-instruction group | | | | comparison |
| | pretest | post test | t3 | pretest | post test | t | pretests | post tests |
| | mean s.d. | mean s.d. | value | mean s.d. | mean s.d. | value | t value | t value |
| frightening | reassuring | 3.29 ±1.77 | 4.25 ±1.53 | 1.58 | 2.85 ±1.28 | 4.07 ±1.12 | 2.61* | 0.74 | 0.35 |
| unwilling | willing | 5.36 ±1.69 | 5.56 ±1.32 | 0.37 | 4.42 ±1.76 | 4.77 ±1.74 | 0.45 | 1.35 | 1.36 |
| dull | exciting | 4.43 ±1.22 | 4.63 ±1.36 | 0.42 | 4.69 ±1.65 | 5.23 ±0.93 | 1.02 | 0.47 | 1.42 |
| nonessential | essential | 6.14 ±1.03 | 5.69 ±1.54 | 0.96 | 6.31 ±1.03 | 6.08 ±0.95 | 0.59 | 0.42 | 0.83 |
| unreliable | reliable | 5.14 ±1.46 | 5.50 ±0.97 | 0.78 | 4.38 ±1.50 | 5.62 ±1.19 | 2.31* | 1.33 | 0.28 |
| worthless | valuable | 5.71 ±1.44 | 6.13 ±0.96 | 0.91 | 5.85 ±1.07 | 5.77 ±1.09 | 0.18 | 0.27 | 0.92 |

1Bipolar pairs were randomly assigned to their placement of polarity and sequence on instrument.

2Negative = 1; positive = 7.

3t test for two independent samples.

*Significant: (P < 0.05)
<table>
<thead>
<tr>
<th>descriptors</th>
<th>lecture group</th>
<th>self-instruction group</th>
<th>comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pretest</td>
<td>post test</td>
<td>pretest</td>
</tr>
<tr>
<td></td>
<td>mean</td>
<td>s.d.</td>
<td>mean</td>
</tr>
<tr>
<td>insignificant -</td>
<td>5.71 ±0.99</td>
<td>5.94 ±1.48</td>
<td>5.92 ±1.25</td>
</tr>
<tr>
<td>significant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>incomplete -</td>
<td>4.64 ±1.60</td>
<td>4.94 ±1.57</td>
<td>4.23 ±1.36</td>
</tr>
<tr>
<td>complete</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>chaotic -</td>
<td>4.43 ±1.40</td>
<td>4.13 ±1.46</td>
<td>3.85 ±1.77</td>
</tr>
<tr>
<td>orderly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unfriendly -</td>
<td>5.79 ±1.31</td>
<td>5.63 ±0.81</td>
<td>5.54 ±1.45</td>
</tr>
<tr>
<td>friendly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unpleasant -</td>
<td>5.79 ±0.89</td>
<td>5.38 ±1.46</td>
<td>5.38 ±1.19</td>
</tr>
<tr>
<td>pleasant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bad -</td>
<td>5.50 ±1.09</td>
<td>5.63 ±0.86</td>
<td>5.23 ±1.30</td>
</tr>
<tr>
<td>good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rigid -</td>
<td>5.14 ±1.35</td>
<td>5.50 ±1.68</td>
<td>5.38 ±1.19</td>
</tr>
<tr>
<td>flexible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>slow -</td>
<td>3.86 ±1.46</td>
<td>4.56 ±1.67</td>
<td>4.69 ±1.54</td>
</tr>
<tr>
<td>fast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>deceitful -</td>
<td>5.29 ±1.44</td>
<td>5.44 ±1.03</td>
<td>5.08 ±0.95</td>
</tr>
<tr>
<td>candid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ratings for Personal Value, Interest, and Instructional Method. The results of the ratings for the variables of personal value, interest, and instructional method as applied to each of the seven sections of the interviewing unit are shown in Table 6. The ratings were obtained by questionnaire at the conclusion of instruction. The control group gave a higher rating of interest to Section II, Question and Interview, than did the experimental group. The difference was significant at $P = 0.035$. A similar rating was also made by the control group on the Plan, Phases and Components of the Interview, Section III, resulting in $P = 0.037$.

There was a significant difference in all three variables; personal value, interest, and instructional method for the sixth section of the interviewing unit; Counselling and Appraisal Interview ($P = 0.040$, $P = 0.031$, $P = 0.210$, respectively). The control group had higher mean scores in all three variables.

None of the values for self-ratings of ability to fulfill objectives for the unit were significant when the mean scores for the two methods were compared by a t-test. The results are shown in Table 7.

Mean scores for the control group were consistently higher for all three variables in each section of the interviewing unit. This may have been affected by attitudes, knowledge, and experience for the interview process before instruction. The lecture group may also have experienced less apprehension toward the unit due to participation in the traditional method of instruction.

The mean scores for the self-instruction group may have been affected by apprehension toward the method of instruction. This group may not have viewed the interviewing process as favorably as the control
<table>
<thead>
<tr>
<th>sections of interviewing unit</th>
<th>personal value</th>
<th>interest</th>
<th>instructional method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lecture mean</td>
<td>self-instruction mean</td>
<td>t² value</td>
</tr>
<tr>
<td>I. Introduction to the interview and listening skills</td>
<td>3.50 ± .73</td>
<td>3.23 ± .83</td>
<td>0.91</td>
</tr>
<tr>
<td>II. Question and the interview</td>
<td>3.69 ± .70</td>
<td>3.38 ± .87</td>
<td>0.01</td>
</tr>
<tr>
<td>III. Planning, phases and components of the interview</td>
<td>3.69 ± .87</td>
<td>3.38 ± .77</td>
<td>0.99</td>
</tr>
<tr>
<td>IV. Patient and the interview</td>
<td>4.06 ± .68</td>
<td>3.76 ± .60</td>
<td>1.23</td>
</tr>
<tr>
<td>V. Employee and the interview</td>
<td>3.81 ± .91</td>
<td>3.61 ± .65</td>
<td>0.68</td>
</tr>
<tr>
<td>VI. Counseling and appraisal interview</td>
<td>3.87 ± .89</td>
<td>3.23 ± .72</td>
<td>2.15*</td>
</tr>
<tr>
<td>VII. Interview in action</td>
<td>3.31 ± .70</td>
<td>3.69 ± .63</td>
<td>1.53</td>
</tr>
</tbody>
</table>

¹ Lecture group, N = 16; self-instruction group, N = 13.

² t test for two independent samples.

*Significant: (P < 0.05).
Table 7: Comparison of self-ratings of ability to fulfill objectives of interviewing unit by control and experimental group

<table>
<thead>
<tr>
<th>objective</th>
<th>lecture</th>
<th>self-instruction</th>
<th>( t^2 ) value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Recognizing the advantages of listening as a means of communication</td>
<td>4.31 ± .70</td>
<td>4.46 ± .51</td>
<td>0.66</td>
</tr>
<tr>
<td>2. Understanding the importance of an adult to adult level of communication</td>
<td>4.25 ± .58</td>
<td>4.38 ± .50</td>
<td>0.67</td>
</tr>
<tr>
<td>3. Recognizing the application of the open-ended and close-ended question</td>
<td>4.69 ± .48</td>
<td>4.54 ± .52</td>
<td>0.80</td>
</tr>
<tr>
<td>4. Identifying the important factors to consider when planning an interview</td>
<td>3.75 ± .78</td>
<td>4.15 ± .56</td>
<td>1.63</td>
</tr>
<tr>
<td>5. Recognizing the importance of using the interview to guide the patient to take responsibility for his diet</td>
<td>3.81 ± .66</td>
<td>4.15 ± .90</td>
<td>1.14</td>
</tr>
<tr>
<td>6. Recognizing the application of a particular type of interview to meet the needs of the situation</td>
<td>3.88 ± .50</td>
<td>3.77 ± .73</td>
<td>0.45</td>
</tr>
<tr>
<td>7. Recognizing how the labor laws determine what questions are permissible to ask an interviewee</td>
<td>3.69 ± .70</td>
<td>3.54 ± .78</td>
<td>0.54</td>
</tr>
<tr>
<td>8. Recognizing the function of the counseling interview</td>
<td>3.94 ± .57</td>
<td>4.15 ± .38</td>
<td>1.22</td>
</tr>
<tr>
<td>9. Recognizing the function of the appraisal interview</td>
<td>3.81 ± .54</td>
<td>4.00 ± .41</td>
<td>1.06</td>
</tr>
<tr>
<td>10. Recognizing the role of behavior in an interview</td>
<td>4.31 ± .60</td>
<td>4.15 ± .90</td>
<td>0.54</td>
</tr>
</tbody>
</table>

\(^1\) Inferior = 1; outstanding = 5.

\(^2\) \( t \) test for two independent samples.
Significant: \((P \leq 0.05)\).
group. The media used in the self-instruction unit may not have been effective for the section. This is apparent for section VII.
SUMMARY AND CONCLUSION

Summary

The primary objective for this study was to develop a self-instructional unit in interviewing for dietetic students. The study was conducted at Kansas State University during the 1976 fall semester in the course, "Instructional Competencies for Dietetic Students." The class of twenty-nine students was divided by appropriate methods into a control group of sixteen and an experimental group of thirteen students.

Seven self-instructional sections on interviewing concepts were developed. These sections included the introduction to the interview and listening; question and the interview; plan, phases, and components of the interview; the patient and the interview; the employee and the interview; and the interview in action.

A second purpose was to evaluate the instructional strategy by which the unit was presented. Self-instruction (experimental group) was compared with the traditional lecture (control group) in relation to performance on an objective cognitive post test. Attitudes (affective domain) were measured before and after instruction by a semantic differential scale for the variables of interview, interviewer, and the interviewee. Measures in the affective domain were also derived from a questionnaire administered at the completion of the unit for personal value, interest, instructional method and effectiveness in meeting objectives.

Results in the cognitive domain were evaluated with a 50-item multiple choice examination. The examination was validated in a preceding
course. Changes in attitude (affective domain) were evaluated with two instruments. The semantic differential scale was administered in a pre-test and post test design to determine the students' attitudes toward three facets of interviewing; the interview, the interviewer, and the interviewee. The scale consisted of fifteen bipolar pairs randomly assigned as to placement of polarity and sequence. The instrument was validated by students in a previous course and also by graduate students and instructors. The second instrument used to evaluate in the affective domain was a questionnaire to test for reactions on interviewing by ratings for personal value, interest, and instructional method. The effectiveness of the instructional methods were also evaluated on the basis of self-ratings of ability to fulfill course objectives.

Conclusion

The analysis of the various tests administered to the two groups indicated that the two instructional methods were virtually equally effective. Therefore it was concluded that the self study unit was an acceptable educational device.

The self-instructional sections for the interviewing unit seemed adequate as a basis for further development. The utilization of videotaped interviews in which the student alternated in the role of the interviewer or the interviewee could be beneficial as an introduction to an actual interview. Interviews conducted with classmates with reversal of roles could also be beneficial. These exercises could be followed by an actual interview with an employee or patient. Simulations could also be used for these functions with evaluation by audiotape or actual observation.
It appears that sections II, III, and VI could be further developed to increase the interest, perhaps by a change in the media of presentation. It is believed that if juniors obtain a good understanding of interview aims and techniques, they may be more comfortable in initial clinical experiences of the senior year and be able to develop further these skills. It is suggested that further study be conducted in this area to develop and improve effective instructional and evaluation methods and materials for teaching interviewing skills to dietetic students.
BIBLIOGRAPHY


52. Handbook for research, development, or other activities involving human subjects. Manhattan: Kansas State University, 1974.


68. Machine test scoring. Kansas State University, Manhattan, Kansas.


APPENDIXES
APPENDIX A

Cognitive and Affective Evaluation Instruments
Each question or incomplete statement below is followed by four suggested answers or completions. In each case, select the one that BEST answers the question or completes the statement.

To answer these questions or incomplete statements, mark the corresponding letter you choose from the test on the computer card.

1. We can enhance listening with the use of the open-ended question because the open-ended question functions to:
   A. encourage the interviewee
   B. clarify what the interviewee says
   C. restate responses
   D. all of the above
   *1

2. A major advantage for using effective listening skills is to:
   A. hear what the interviewee says
   B. obtain basic facts
   C. hear what the interviewee means
   D. give beneficial assistance
   *

3. Which of the following is an open-ended question:
   A. Did you follow your diet plan?
   B. What is your job like?
   C. How old are you?
   D. How long have you been out of school?
   *1

4. The role of the interview is to:
   A. talk at people
   B. listen intently
   C. obtain information
   D. use a direct approach
   *

5. Non-evaluative listening provides:
   A. a supporting atmosphere
   B. answers to questions
   C. a restrictive atmosphere
   D. the opportunity for poor attitudes to develop
   *

* indicates the correct response.
6. Which of the following is a statement which can be effectively used to show acceptance?
   A. "Let's move on"
   * B. "Tell me more about it"
   C. "Really"
   D. "I don't understand"

7. The opening phase of an interview functions primarily to:
   A. develop a plan of action to meet goals
   * B. establish rapport
   C. provide guidance for decision making
   D. review the objectives

8. Which of the following is NOT a major consideration when planning an interview:
   A. interviewee
   B. time allotment
   * C. note taking
   D. setting

9. In the closing phase of the interview, the interviewer's objective is to:
   * A. evaluate progress
   B. provide solutions to problems
   C. establish objectives
   D. establish rapport

10. Before seeing a patient, the interviewer needs to know:
    A. the hospital's visiting hours
    B. what living means to the patient
    * C. the diet rationale
    D. the patient's family background

11. How well you are going to be able to motivate a patient through an interview is affected by:
    A. his social background
    B. his ability to understand the diet
    C. his ability to assume responsibility
    * D. all of the above

12. According to Claire Johnson from the Ohio State University, the most difficult patient to instruct may be the:
    * A. poorly motivated patient
    B. poorly educated patient
    C. grossly restricted patient
    D. low income patient

13. Note taking during an interview should be kept to a minimum in order to:
    A. be discreet
    B. save time
    C. make you think
    * D. facilitate listening
14. The most desirable amount of time the interviewer should spend in listening in the interview is:
   A. 10-15%
   B. 30-40%
   C. 50-60%
   * D. 70-80%

15. In a pre-employment interview for a state institution, it is legal to directly ask the interviewee:
   A. his age
   B. where he lives
   C. how many dependents he claims
   * D. what he did on his last job

16. It would be best to use a directive approach to:
   A. discover reasons why a patient is not losing weight
   * B. take a diet history
   C. perform an exit interview
   D. perform a counseling interview with an employee

17. Which of the following is the most appropriate way to end an interview?
   A. Tell the interviewee the time is over
   B. Sit on the edge of the chair and look at the clock
   C. Ask the interviewee if he has any questions
   * D. Inform the interviewee the interview is almost over and ask if there are any remaining questions

18. In order for an interview to be constructive the interviewer must:
   A. be on time
   * B. develop rapport with the interviewee
   C. take minimum, but accurate, notes
   D. always be in control

19. Which of the following is NOT a component of an interview itself?
   A. Attitude
   * B. Resource materials
   C. Approach
   D. Listening

20. Situation: A patient on a weight control program comes in for a follow-up visit. The patient has not lost weight and asks the interviewer what he should do. The interviewer answers with the question: "What do you think the problem is?" Why did the interviewer use this approach?
   * A. to develop initiative
   B. to develop rapport
   C. to develop an attitude
   D. to develop self-confidence
21. An employee has submitted his resignation and will be leaving in a few days. You will want to perform a (an)
   A. counseling interview
   B. disciplinary interview
   * C. exit interview
   D. appraisal interview

22. The extensive use of open-ended questions, listening skills, and a longer time allotment in the interview are characteristics one would expect to find when using a (an)
   * A. non-directive approach
   B. objective approach
   C. directive approach
   D. initiative approach

23. A close-ended question:
   A. is often effective when using the non-directive approach
   * B. can be answered adequately in a few words
   C. may require more than a few words for an adequate response
   D. is useful in the counseling interview

24. Interviewing is different from other management skills because it involves:
   * A. the attitudes and conduct of people
   B. a certain degree of privacy
   C. the use of a lot of forms
   D. the use of a standard procedure

25. It is important to know the diet rationale before visiting a patient in order to:
   A. be able to defend the diet
   B. know what the restrictions may be
   * C. tell the physician what changes you would suggest
   D. be able to explain the diet to the patient

A dietetic student performed some pre-employment interviews during the management experience. An instructor evaluated the student's performance and jotted down some questions the student used. Indicate whether the questions are close-ended questions or open-ended questions by marking the corresponding letter you choose from the test on the computer card.

A 26. Did you finish high school? A. close-ended question

B 27. How did that happen? B. open-ended question

B 28. How did you make that decision?

B 29. What are some reasons that influenced you to change your job?

A 30. Did you like your last job?
Identify which phase of the interview the following statements refer to. Choices may be used more than once. Answer by marking the corresponding letter on the computer card.

B 31. The working phase  
A 32. Establish rapport  
B 33. Establish a plan of action to meet goals  
C 34. Summarize objectives  
A 35. Establish objectives

Identify which tool would be BEST to use for each of the following situations. The choices may be used more than once or not used at all. Answer by marking the corresponding letter on the computer card.

D 36. The patient wants to know some new ways to prepare foods on a low sodium diet.  
A 37. You are seeing a patient for the first time and need some information from the patient.  
E 38. You are performing a pre-employment interview.  
B 39. Your patient is a diabetic who is having difficulty understanding how to use fractions in the exchange lists.  
A 40. The patient is on a weight reduction program and has not lost weight.

A. Diet History  
B. Food Model  
C. Exchange list  
D. Modified diet cookbook  
E. Job application form

The following are situations you may be confronted with as a student dietitian. Indicate what interview form would BEST meet the needs of the situation. Mark the corresponding letter you choose from the list on the computer card. The choices may be used more than once or not used at all.

A 41. One of your supervisors asks to see you. He has received some confidential information from the workers he feels could be useful for the food production area.  
B 42. An employee comes to work inappropriately dressed for work as a food service worker. The employee has worked for you for three years.

A. Counseling interview  
B. Disciplinary interview  
C. Exit interview  
D. Appraisal interview  
E. Pre-employment interview
D 43. Your head cook has set some goals to improve her performance and you wish to evaluate her progress.

A 44. You have a patient who asks you for suggestions on how to lose weight.

E 45. You want to know why an individual wants to work in the patient foodservice area.

Situation: You are performing pre-employment interviews. The following are situations you have been confronted with during the interview process. Indicate which legislation will MOST influence your decisions or replies by marking the corresponding letter you choose from the list on the computer card. The choices may be used more than once.

C 46. You have a female applicant who wants to know the pay for the position for which she is applying.

D 47. You have an applicant who is well qualified for the Cook I position and is 55 years old. Another applicant with equal qualifications is 30 years old.

A 48. The application form you are required to use asks the question as to whether or not the applicant has any arrest and/or conviction records.

A 49. You have a young male applicant for the dishroom. You ask where his wife is employed and find she works in your food production area.

B 50. During the interview, the applicant offers the information that, due to religious practices, he cannot work on Saturday.
### Table 1: Item analysis of cognitive tests

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Lecture group</th>
<th></th>
<th>Self-instruction group</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>proportion correct answers</td>
<td>item discrimination index</td>
<td>proportion correct answers</td>
<td>item discrimination index</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>75.0</td>
<td>0.50</td>
<td></td>
<td>69.2</td>
<td>0.25</td>
</tr>
<tr>
<td>2</td>
<td>81.2</td>
<td>0.25</td>
<td></td>
<td>92.3</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>93.7</td>
<td>0.25</td>
<td></td>
<td>92.3</td>
<td>0.25</td>
</tr>
<tr>
<td>6</td>
<td>81.2</td>
<td>0.24</td>
<td></td>
<td>84.6</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>84.6</td>
<td>0.25</td>
</tr>
<tr>
<td>8</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>87.5</td>
<td>0.00</td>
<td></td>
<td>92.3</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>87.5</td>
<td>0.25</td>
<td></td>
<td>92.3</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>76.9</td>
<td>0.50</td>
</tr>
<tr>
<td>12</td>
<td>93.7</td>
<td>0.25</td>
<td></td>
<td>76.9</td>
<td>0.25</td>
</tr>
<tr>
<td>13</td>
<td>81.2</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>93.7</td>
<td>0.25</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>93.7</td>
<td>0.00</td>
<td></td>
<td>76.9</td>
<td>0.50</td>
</tr>
<tr>
<td>16</td>
<td>87.5</td>
<td>0.25</td>
<td></td>
<td>84.6</td>
<td>0.25</td>
</tr>
<tr>
<td>17</td>
<td>87.5</td>
<td>0.25</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>18</td>
<td>87.5</td>
<td>0.24</td>
<td></td>
<td>76.9</td>
<td>0.25</td>
</tr>
<tr>
<td>19</td>
<td>87.5</td>
<td>0.25</td>
<td></td>
<td>92.3</td>
<td>0.00</td>
</tr>
<tr>
<td>20</td>
<td>68.7</td>
<td>0.00</td>
<td></td>
<td>92.3</td>
<td>0.25</td>
</tr>
<tr>
<td>21</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>87.5</td>
<td>0.50</td>
<td></td>
<td>92.3</td>
<td>0.25</td>
</tr>
<tr>
<td>23</td>
<td>100.0</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>24</td>
<td>43.7</td>
<td>0.25</td>
<td></td>
<td>76.9</td>
<td>0.50</td>
</tr>
<tr>
<td>25</td>
<td>93.7</td>
<td>0.00</td>
<td></td>
<td>100.0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

\[N\text{ for lecture }=16.\]

\[N\text{ for self-instruction }=13.\]
<table>
<thead>
<tr>
<th>item no.</th>
<th>lecture group</th>
<th>self-instruction group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>proportion correct answers</td>
<td>discrimination index</td>
</tr>
<tr>
<td>26</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>27</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>28</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>29</td>
<td>93.7</td>
<td>0.25</td>
</tr>
<tr>
<td>30</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>31</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>32</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>33</td>
<td>75.0</td>
<td>0.00</td>
</tr>
<tr>
<td>34</td>
<td>0.0</td>
<td>0.00</td>
</tr>
<tr>
<td>35</td>
<td>62.5</td>
<td>0.00</td>
</tr>
<tr>
<td>36</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>37</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>38</td>
<td>93.7</td>
<td>0.00</td>
</tr>
<tr>
<td>39</td>
<td>37.5</td>
<td>0.00</td>
</tr>
<tr>
<td>40</td>
<td>43.7</td>
<td>0.50</td>
</tr>
<tr>
<td>41</td>
<td>81.2</td>
<td>0.25</td>
</tr>
<tr>
<td>42</td>
<td>93.7</td>
<td>0.25</td>
</tr>
<tr>
<td>43</td>
<td>93.7</td>
<td>0.25</td>
</tr>
<tr>
<td>44</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>45</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>46</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>47</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>48</td>
<td>56.2</td>
<td>0.50</td>
</tr>
<tr>
<td>49</td>
<td>81.2</td>
<td>0.00</td>
</tr>
<tr>
<td>50</td>
<td>81.2</td>
<td>0.00</td>
</tr>
</tbody>
</table>
INSTRUCTIONS

The purpose of this study is to measure the meanings of certain terms to various people by having them judge them against a series of descriptive scales. In taking this test, please make your judgments on the basis of what these terms mean to you at this specific time. On each page of this booklet you will find a different term to be judged and beneath it a set of scales. You are to rate the term on each of these scales in order.

Here is how you are to use these scales:

If you feel that the term at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

hot X:____:____:____:____:____:____ cold

or

hot _____:_____:_____:_____:_____:_____ X cold

If you feel that the term is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

hot ____:X:____:____:____:____:____ cold

or

hot _____:_____:_____:_____:X:_____:_____ cold

If the term seems only slightly related to one side as opposed to the other side (but is not really neutral) then you should check as follows:

hot ____:____:X:____:____:____:____ cold

or

hot _____:_____:_____:X:____:____:____ cold

The direction toward which you check, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you are judging. If you consider the term to be neutral on the scale, both sides of the scale equally associated with the term, or if the scale is completely irrelevant, unrelated to the term, then you should place your check-mark in the middle space:

hot _____:_____:X:____:____:____:____ cold

IMPORTANT: (1) Place your check-marks in the middle of the spaces, not on the boundaries.

(2) Be sure you check every scale for every term—do not omit any.

(3) Never put more than one check-mark on a single scale.

Make each item a separate and independent judgment. Work at fairly high speed through this test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless, because we want your true impressions.
<table>
<thead>
<tr>
<th>Term</th>
<th>Scale</th>
<th>Adjunct</th>
</tr>
</thead>
<tbody>
<tr>
<td>frightening</td>
<td>:</td>
<td>reassuring</td>
</tr>
<tr>
<td>willing</td>
<td>:</td>
<td>unwilling</td>
</tr>
<tr>
<td>dull</td>
<td>:</td>
<td>exciting</td>
</tr>
<tr>
<td>non-essential</td>
<td>:</td>
<td>essential</td>
</tr>
<tr>
<td>reliable</td>
<td>:</td>
<td>unreliable</td>
</tr>
<tr>
<td>valuable</td>
<td>:</td>
<td>worthless</td>
</tr>
<tr>
<td>insignificant</td>
<td>:</td>
<td>significant</td>
</tr>
<tr>
<td>complete</td>
<td>:</td>
<td>incomplete</td>
</tr>
<tr>
<td>chaotic</td>
<td>:</td>
<td>orderly</td>
</tr>
<tr>
<td>friendly</td>
<td>:</td>
<td>unfriendly</td>
</tr>
<tr>
<td>unpleasant</td>
<td>:</td>
<td>pleasant</td>
</tr>
<tr>
<td>bad</td>
<td>:</td>
<td>good</td>
</tr>
<tr>
<td>rigid</td>
<td>:</td>
<td>flexible</td>
</tr>
<tr>
<td>fast</td>
<td>:</td>
<td>slow</td>
</tr>
<tr>
<td>candid</td>
<td>:</td>
<td>deceitful</td>
</tr>
</tbody>
</table>
TERM TO BE RATED: Interviewer

<table>
<thead>
<tr>
<th>Term</th>
<th>Rating</th>
<th>Antonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>frightening</td>
<td></td>
<td>reassuring</td>
</tr>
<tr>
<td>willing</td>
<td></td>
<td>unwilling</td>
</tr>
<tr>
<td>dull</td>
<td></td>
<td>exciting</td>
</tr>
<tr>
<td>non-essential</td>
<td></td>
<td>essential</td>
</tr>
<tr>
<td>reliable</td>
<td></td>
<td>unreliable</td>
</tr>
<tr>
<td>valuable</td>
<td></td>
<td>worthless</td>
</tr>
<tr>
<td>insignificant</td>
<td></td>
<td>significant</td>
</tr>
<tr>
<td>complete</td>
<td></td>
<td>incomplete</td>
</tr>
<tr>
<td>chaotic</td>
<td></td>
<td>orderly</td>
</tr>
<tr>
<td>friendly</td>
<td></td>
<td>unfriendly</td>
</tr>
<tr>
<td>unpleasant</td>
<td></td>
<td>pleasant</td>
</tr>
<tr>
<td>bad</td>
<td></td>
<td>good</td>
</tr>
<tr>
<td>rigid</td>
<td></td>
<td>flexible</td>
</tr>
<tr>
<td>fast</td>
<td></td>
<td>slow</td>
</tr>
<tr>
<td>candid</td>
<td></td>
<td>deceitful</td>
</tr>
</tbody>
</table>
TERM TO BE RATED: Interviewee

<table>
<thead>
<tr>
<th>Term</th>
<th>Scale</th>
<th>Antonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>frightening</td>
<td></td>
<td>reassuring</td>
</tr>
<tr>
<td>willing</td>
<td></td>
<td>unwilling</td>
</tr>
<tr>
<td>dull</td>
<td></td>
<td>exciting</td>
</tr>
<tr>
<td>non-essential</td>
<td></td>
<td>essential</td>
</tr>
<tr>
<td>reliable</td>
<td></td>
<td>unreliable</td>
</tr>
<tr>
<td>valuable</td>
<td></td>
<td>worthless</td>
</tr>
<tr>
<td>insignificant</td>
<td></td>
<td>significant</td>
</tr>
<tr>
<td>complete</td>
<td></td>
<td>incomplete</td>
</tr>
<tr>
<td>chaotic</td>
<td></td>
<td>orderly</td>
</tr>
<tr>
<td>friendly</td>
<td></td>
<td>unfriendly</td>
</tr>
<tr>
<td>unpleasant</td>
<td></td>
<td>pleasant</td>
</tr>
<tr>
<td>bad</td>
<td></td>
<td>good</td>
</tr>
<tr>
<td>rigid</td>
<td></td>
<td>flexible</td>
</tr>
<tr>
<td>fast</td>
<td></td>
<td>slow</td>
</tr>
<tr>
<td>candid</td>
<td></td>
<td>deceitful</td>
</tr>
</tbody>
</table>
Introduction to Instructional Competencies for Dietetic Students

INTERVIEWING UNIT

Circle the section you were in for the interviewing unit.

LECTURE    SELF-INSTRUCTION

Please answer the following in the manner that most closely resembles how you feel about the statements.

1. The sections of the interviewing unit are listed below. Make three ratings of each: (1) The value of the unit in terms of your purposes; (2) The degree to which you found the content of the unit interesting; and (3) The degree to which you felt the instructional method used in the unit was effective. Use the following scale:

<table>
<thead>
<tr>
<th>Rating</th>
<th>1 = Inferior</th>
<th>2 = Only so-so</th>
<th>3 = Acceptable</th>
<th>4 = Very Good</th>
<th>5 = Outstanding</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Personal Value</th>
<th>Interest</th>
<th>Instructional Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section I Introduction to the interview and listening skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section II Question and the interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section III Planning, Phases and Components of the interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section IV Patient and the interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section V Employee and the interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section VI Counseling and Appraisal interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Section VII Interview in action</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INTERVIEWING UNIT

2. Effective interviewing requires several skills, some of which are listed below. Indicate the degree to which you feel confident of your ability to perform each of these by filling in one of the following code numbers:

1 = I feel very unsure of myself
2 = I feel somewhat unsure of myself
3 = In between
4 = I feel fairly sure of myself
5 = I feel very sure of myself

1. Recognizing the advantages of listening as a means of communication ........................................... Rating

2. Understanding the importance of an adult to adult level of communication ...........................................

3. Recognizing the application of the open-ended and close-ended questions ...........................................

4. Identifying the important factors to consider when planning an interview ...........................................

5. Recognizing the importance of using the interview to guide the patient to take responsibility for his diet ....

6. Recognizing the application of a particular type of interview to meet the needs of the situation ....................

7. Recognizing how the labor laws determine what questions are permissible to ask an interviewee ....................

8. Recognizing the function of the counseling interview .................................................................

9. Recognizing the function of the appraisal interview .................................................................

10. Recognizing the role of behavior in an interview .................................................................
APPENDIX B

Objectives and Samples of Materials Prepared for the Self-Instruction Group
ORIGINAL COURSE OBJECTIVES FOR
THE COGNITIVE DOMAIN

1. The student will recognize the role of the interview in dietetics.

2. The student will recognize the application of open-ended and close-ended questions in an interview.

3. The student will understand the role labor laws play in interviewing.

4. The student will recognize the application of different types of interviews.
SECTION I
OBJECTIVES

1. The student will identify the role of the interview in working with people.
2. The student will recognize the advantages of listening as a means of communication.
3. The student will understand the application of acceptance phrases.
4. The student will understand the importance of an adult to adult level of communication.
5. The student will recognize the role of behavior in an interview.

SECTION II
OBJECTIVES

1. The student will recognize a close-ended question.
2. The student will recognize an open-ended question.
3. The student will understand the functions of the open-ended and close-ended questions.
4. The student will recognize the application of the open-ended and close-ended questions.

SECTION III
OBJECTIVES

1. The student will understand the important factors to consider when planning an interview.
2. The student will recognize different approaches to an interview.
3. The student will recognize the three phases of an interview.
4. The student will understand the function of each of the three phases of an interview.
5. The student will recognize the twelve components of the interview.
SECTION IV
OBJECTIVES

1. The student will recognize what steps are necessary to plan an interview with a patient.
2. The student will be familiar with different characteristics that patients possess.
3. The student will recognize the importance of using the interview to guide the patient to take responsibility for his diet.
4. The student will recognize resource materials which may facilitate the patient interview.

SECTION V
OBJECTIVES

1. The student will recognize what steps are necessary to plan an interview with an employee.
2. The student will recognize the different types of interviews.
3. The student will recognize the application of a particular type of interview to meet the needs of the situation.
4. The student will recognize the labor laws affecting interviewing.
5. The student will understand the application of labor laws to the interview.
6. The student will understand how the labor laws determine what questions are permissible to ask an interviewee.
SECTION VI
OBJECTIVES

1. The student will recognize the function of the counseling interview.
2. The student will recognize the function of the appraisal interview.
3. The student will recognize the application of the counseling interview to the patient and the employee.
4. The student will recognize the application of the appraisal interview to the employee.

SECTION VII
OBJECTIVES

1. The student will recognize an improper way to interview.
2. The student will apply the form of interview that will most effectively deal with a situation.
SELF-INSTRUCTION FOR INTERVIEWING UNIT

ASSIGNMENTS FOR SECTION I
(Introduction to interview listening skills)

1. Listen to the tape, "Introduction to Interviewing, Section I."
   (Use the outline provided as a guide.)

2. Read: Charles B. Smith, "Communication an Essential of Reality,"

3. Read: Thomas A. Harris, I'm OK--You're OK. Chapter five.

4. Read: "Micro Counseling Training in Listening Skills."
   a. Complete exercise.

5. Read: "Stimulating Discussion--Probes."

6. Read: "How to Interview."

7. Read: Introduction to videotape of Virginia Stucky.


(Handout for students for Section I)

ASSIGNMENTS FOR SECTION II
(Question and the interview)

1. View: Slide-tape, "What kind of question is that?"

2. Complete the exercise on recognition of open-ended and close-ended
   question. (This is included in the slide-tape.)

(Handout for students for Section II)

ASSIGNMENTS FOR SECTION III
(Planning, phases and components of the interview)

1. View the videotape

   a. "Planning the interview"--Part I
      (approximately 30 minutes)

   b. "Components of the interview"--Part II
      (approximately 20 minutes)

   * These two parts are on the same videotape.

2. Use the outline provided as a guide for your notes.

(Handout for students for Section III)
ASSIGNMENTS FOR SECTION IV
(Patient and the interview)

1. Cassette tape:
   "The Patient and the Interview"--Part I
   "The Patient and the Interview"--Part II

2. Read:
   Doris Spragg, Patricia Stein, and Madge L. Myers, "Guidelines for

(Handout for students for Section IV)

ASSIGNMENTS FOR SECTION V
(Employee and the interview)

1. Read:
   Elaine C. Cabot, "Communicating with employees: Why people hear the
same words but get different messages," Modern Hospital, Vol. 21,

2. Read:
   Dean B. Peskin, "Interviewing Techniques," Human Behavior and Employ-
ment Interviewing, USA: AMA, 1971, pp. 171-177.

3. Read:
   "Conducting the Lawful Employment Interview," New York: Executive

4. Read:
   Stewart, C.J. and Cash, W.B., Interviewing: Principles and Practices,

5. Cassette tape:

(Handout for students for Section V)
ASSIGNMENTS FOR SECTION VI
(Counseling and appraisal interview)

1. Read:

2. Read:

(No handout for this section, but there are extra copies of the readings for student access in the media center. These readings are not to be taken from the media center.)

ASSIGNMENTS FOR SECTION VII
(Interview in action)

1. "How Not to Interview"
   This script is to provide an example of poor interviewing techniques.

2. Read:
   Case Study; complete the questions for your own study.


(Handout for the students for Section VII)
APPENDIX C

Correspondence to Students and Reviewers of Materials
August 23, 1976

Ms. Marsee L. Bean
Department of Institutional Management
Justin Hall
CAMPUS

Dear Ms. Bean:

I have reviewed your proposal, "Effects of Two Types of Instruction for Interviewing Concepts on the Results of Examination and Attitude Scores," and find that the participants in this project will not be placed at "risk," as defined by DHEW regulations.

You, therefore, may proceed with your research project as outlined in your proposal and application.

Very truly yours,

[Signature]
John P. Murry, Chairman
Committee on Research Involving Human Subjects

JPM: jek

cc: Marian C. Spears
    Dean Ruth Hoeflin
APPLICATION FOR APPROVAL TO USE HUMAN SUBJECTS

1. ACTIVITY OR PROJECT TITLE:

2. PROPOSED SPONSOR (IF ANY):

3. PERSONNEL INVOLVED:

<table>
<thead>
<tr>
<th>NAME</th>
<th>DEPARTMENT</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE PRINCIPAL INVESTIGATOR OR A RESPONSIBLE INDIVIDUAL*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO-WORKERS**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. ATTACH A COPY OF THE PROJECT PROPOSAL

A. RISK. ARE THE RISKS TO HUMAN SUBJECTS OUTWEIGHED BY THE BENEFITS TO THE SUBJECT? ☐ YES ☐ NO
ON WHAT PAGE OF THE PROPOSAL IS THIS INFORMATION OUTLINED? ___________. IF THIS DESCRIPTION IS NOT OF SUFFICIENT DETAIL FOR THE COMMITTEE TO EVALUATE, ADD ADDITIONAL INFORMATION HERE.

There do not appear to be any definable risks to the subjects for this study. All of the participants will study the same course content and course materials. The participants will be evaluated with the same exam. The materials presented in this unit of study will provide the subjects the opportunity to learn how to better work with people.

*MUST BE FACULTY - NOT A STUDENT
**MAY BE GRADUATE OR UNDERGRADUATE STUDENTS
B. INFORMED CONSENT. ON WHAT PAGE OF THE PROPOSAL IS THE PROCEDURE FOR SECURING INFORMED CONSENT OUTLINED? 6. IF THE PROPOSAL DOES NOT INCLUDE ALL OF THE FOLLOWING, DISCUSS THEM BELOW:
(1) a fair explanation of procedures to be followed including identification of experimental procedures, (2) description of discomforts and risks, (3) description of benefits, (4) disclosure of appropriate alternatives available, (5) an offer to answer inquiries, and (6) instructions that the subject is free to withdraw consent and participation at anytime.

See the attached written instructions to be read to the participants before the study begins.

C. EMERGENCIES. ON WHAT PAGE OF THE PROPOSAL ARE THE PROCEDURES FOR EMERGENCIES DISCUSSED? ___ . HAVE YOU LISTED POSSIBLE EMERGENCIES WHICH MIGHT ARISE? ☒ YES ☐ NO. If further detail concerning anticipated emergencies or procedures for handling emergencies should be discussed, do so in the space provided below.

D. PRIVACY. ON WHAT PAGE OF THE PROPOSAL DO YOU DISCUSS PROCEDURES FOR KEEPING RESEARCH DATA PRIVATE? 7. This should include procedures for maintaining anonymity of subjects. Supplemental information concerning privacy of data may be discussed below.
5. STATEMENT OF AGREEMENT: The below named individual certifies that he/she has read and is willing to conduct these activities in accordance with the Handbook for Research, Development, Demonstration, or Other Activities Involving Human Subjects. Further, the below named individual certifies that any changes in procedures from those outlined above or in the attached proposal will be cleared through Committee 5075, The Committee on Research Involving Human Subjects.

Signed ___________________________  Date _____________

The Responsible Individual

Send applications to: Dr. Page Twiss, Department of Geology, Campus.
INSTRUCTIONS TO BE READ TO ALL PARTICIPANTS PRIOR
TO THE UNIT ON INTERVIEWING

All of you will be participating in the unit covering interviewing. The class will be randomly assigned into two groups. One group will meet in Justin room 149 during the regular class period and obtain the content for this unit through the traditional lecture. The other group will meet in Justin room 150 Media Center and obtain the content for this course through self-instruction packets which have been developed for this course. These packets are available in the Media Center. This procedure will be followed from Tuesday, October 26th through Thursday November 11th.

On Tuesday, November 16th, we will meet in Justin room 149 during the regular class period for a one hundred point objective exam over the interviewing unit. On Thursday, November 18th we will meet again during the assigned class period to review the unit on interviewing. The details of the research project will be presented to you at the close of the unit if you request to see them. You maintain the right to withdraw from the project at anytime. All results of this research will be reported in numbers and group data to insure your right to privacy.
INFORMED SUBJECT CONSENT

As indicated by my signature below and being of sound mind, I do hereby voluntarily consent to serve as a subject in the proposed procedure identified and explained in the document dated April, 1976 and entitled "Effects of Two Types of Instruction for Interviewing Concepts on the Results of Examination and Attitude Scores" which document will be made a part of this consent and available to the subject upon the completion of the procedures defined in the document.

<table>
<thead>
<tr>
<th>Subject Name</th>
<th>Age</th>
<th>Subject Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject Name</td>
<td>Age</td>
<td>Subject Signature</td>
<td>Date</td>
</tr>
<tr>
<td>--------------</td>
<td>-----</td>
<td>-------------------</td>
<td>------</td>
</tr>
<tr>
<td>21.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
October 5, 1976

Dear

Hi! I hope you are having a good semester. The materials for the interviewing self-instruction packet that I am using in my research are ready! This unit will be implemented October 26 through November 18. Before the students use these materials, I need your evaluation.

This unit consists of seven sections. For each section, an evaluation form has been enclosed. I am making the packet available in the media center from October 7th through October 15th. Please review these materials and fill out the corresponding evaluation form. It would be best if you begin with the introduction and follow the sequence as instructed in the packet. Feel free to add any additional comments which will aid in clarifying or improving these materials.

I plan to use your feedback to make the necessary corrections before these materials are presented to the class. When you have completed the evaluations, please leave these forms in the labeled box provided for this purpose in the media center. Thank you for your cooperation and information!

Sincerely,

Marsee Bean
Graduate Student

fj
1. Have you ever been interviewed? If so, explain:

2. Have you ever functioned as an interviewer?

3. If you answered yes to number two, answer 3a and 3b.
   a. What type of interviews have you performed?
   b. How much experience have you had interviewing?

4. Have you previously done any reading on interviewing?  
   If so, explain:

5. Have you ever attended a seminar or discussion  
   concerning interviewing?

6. Are you employed?

7. What job do you presently have?

8. How long have you held this job?

9. Have you ever worked with patients? If so, explain:

10. Have you ever been responsible for a group of 
    employees? If so, explain:

11. Have you ever conducted a survey?

12. Have you ever sold a product on a door to door basis?

13. Have you read I'm O.K.--You're O.K. by  
    Dr. Thomas A. Harris, M.D.?
MEDIA CENTER HOURS

DAYTIME HOURS
MONDAY AND WEDNESDAY 8:00 - 5:30
TUESDAY AND THURSDAY 9:30 - 5:30
FRIDAYS 8:00 - 5:00

EVENINGS
MONDAY -- THURSDAY 6:30 - 9:00
The following unit which will be covered in the next four weeks will be over interviewing. We will look at the role the interview plays, what an interview involves, and how we may apply the interview to dietetics. The text will discuss the functions of the interviewer and methods to use to work with the interviewee. The interviewer is the individual performing the interview. The interviewee is the one being interviewed or the individual for which the interview is performed.

You will complete this unit through independent study. You may progress at your own rate, but a suggested schedule is given to help you pace yourself to complete each section in the three weeks. The unit is divided into sections. Each section contains instructions, objectives, a bibliography and assignments. You may use the objectives as a guide for your study. The sections include readings, cassette tapes, videotapes, slides, and some exercises for you to perform to evaluate yourself. It is important that you complete the assignments in each section in the order they are presented to facilitate your understanding of the materials. The sections should also be completed in numerical order. When you wish to work on a section check it out from the desk in the media center and work in the media center. Some of the sections include outlines or handouts for you to keep; the rest of the materials will remain in the packets in the media center.
As a dietetic student, you will use interviewing techniques a great deal. It will be beneficial for you to familiarize yourself with interviewing techniques now because you will have the opportunity to work with interviewing in more depth during your senior year. It takes time and practice to learn to use these effectively, but you will have a head start if you learn the "ground work" for interviewing now. The bonus from learning interviewing techniques is that you learn more about how to work with people, and that is what dietetics is all about; PEOPLE!!!!

You will meet back during the regular class period on the fourth week. On Tuesday, _____________ there will be an objective exam consisting of fifty questions. Each question will be worth two points. On Thursday, _______________ we will review the exam and summarize the unit.

GOOD LUCK!
# Evaluation Form for Interviewing

**Program Title** ____________________________  **Date** ____________

**Reviewer** ____________________________

COMPLETE THE EVALUATION FORM AS IT APPLIES TO THE SECTION YOU ARE REVIEWING.

NO indicates poor

YES indicates good

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| 1. Clarity of Objectives  
What is trying to be achieved?  
Will the students know what it's about?  
Will students know when objective is achieved? | | | |
| 2. Clarity of Detail Audio Visual Presentation?  
Narrator speaking clearly and slowly?  
One idea per slide?  
Visual message?  
Visual display action?  
Visuals in logical arrangement?  
Visuals give too much detail?  
Visuals clear and sharp? | | | |
| 3. Rate of Introduction of Concepts  
One concept developed clearly before introduction of more?  
Are there incomplete generalizations present?  
Too many concepts per program? | | | |
| 4. Clarity of Organization  
A beginning which gives essential information?  
A theme throughout the program? | | | |
<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Appropriate for Course?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relates to current course content?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provides additional information for students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vocabulary appropriate?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Enough Emphasis on Important Points?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reinforces and summarizes adequately?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviews key points?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Will it Hold Student's Attention?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction concise; short and to the point?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Encourages student participation through questions?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Employs comparisons with the present to make information more meaningful?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Treatment Appropriate for Subject Matter?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Best audio visual approach to subject?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pointed examples used for simplification and clarification?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Appropriate hand-outs used?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INSTRUCTIONS TO BE READ TO ALL PARTICIPANTS PRIOR
TO THE UNIT ON INTERVIEWING

All of you will be participating in the unit covering interviewing. The class will be randomly assigned into two groups. One group will meet in Justin room 149 during the regular class period and obtain the content for this unit through the traditional lecture. The other group will meet in Justin room 150 Media Center and obtain the content for this course through self-instruction packets which have been developed for this course. These packets are available in the Media Center. This procedure will be followed from Tuesday, October 26th through Thursday November 11th.

On Tuesday, November 16th, we will meet in Justin room 149 during the regular class period for a one hundred point objective exam over the interviewing unit. On Thursday, November 18th we will meet again during the assigned class period to review the unit on interviewing. The details of the research project will be presented to you at the close of the unit if you request to see them. You maintain the right to withdraw from the project at anytime. All results of this research will be reported in numbers and group data to insure your right to privacy.
I. Week One
   A. Section I
      Introduction to Interviewing
      Listening Skills
   B. Section II
      The Question and the Interview

II. Week Two
   A. Section III
      Planning the Interview
      Phases of the Interview
      Components of the Interview
   B. Section IV
      The Patient and the Interview
   C. Section V
      The Employee and the Interview

III. Week Three
   A. Section VI
      The Counseling Interview
      The Appraisal Interview
   B. Section VII
      The Interview in Action

IV. Week Four
   A. Exam
   B. Wrap-up!
KANSAS STATE UNIVERSITY, COLLEGE OF HOME ECONOMICS
Institutional Management Department

Instructional Competencies for Dietetic Practice (660 460)

GENERAL OBJECTIVES

1. The student will recognize the application of open-ended and close-ended questions in an interview.

2. The student will understand the importance of listening as a means of communication.

3. The student will recognize the role of the interview in dietetics.

4. The student will understand the role labor laws play in interviewing.

5. The student will recognize the application of different types of interviews.
This bibliography is for your own reference. You may wish to use this as a springboard for further study.

Books

Bernstein, Interviewing, A Guide for Health Professionals
Stewart and Cash, Interviewing: principles and practices
Garrett, Interviewing, Its Principles and Methods
Khn and Cannell, The Dynamics of Interviewing
Fear, The Evaluation Interview, 2nd edition
Sidney and Brown, The Skills of Interviewing
Richardson, Dohrenwend, and Klein, Interviewing: Its Forms and Functions
Maier, The Appraisal Interview
Steinmetz, Interviewing Skills for Personnel
Peskin, Human Behavior and Employment Interviewing
Hariton, Interview! The Executive's Guide to Selecting the Right Personnel
Harris, I'm O.K.—You're O.K.
Fast, Body Language

Audio-Cassettes

McGraw-Hill Evaluation Interview (4-parts)

(1) Introduction to Evaluation Interview
(2) Helping Applicant Talk Spontaneously
(3) Using Exploratory Questions to Probe Depth
(4) Keeping Interview on Track
KANSAS STATE UNIVERSITY, COLLEGE OF HOME ECONOMICS
Institutional Management Department

Instructional Competencies for Dietetic Practice (660 460)

BIBLIOGRAPHY


MEDIA CENTER HOURS

DAYTIME HOURS
MONDAY AND WEDNESDAY  8:00 - 5:30
TUESDAY AND THURSDAY  9:30 - 5:30
FRIDAYS  8:00 - 5:00

EVENINGS
MONDAY -- THURSDAY  6:30 - 9:00
The following unit which will be covered in the next four weeks will be over interviewing. We will look at the role the interview plays, what an interview involves, and how we may apply the interview to dietetics. The text will discuss the functions of the interviewer and methods to use to work with the interviewee. The interviewer is the individual performing the interview. The interviewee is the one being interviewed or the individual for which the interview is performed.

You will complete this unit through independent study. You may progress at your own rate, but a suggested schedule is given to help you pace yourself to complete each section in the three weeks. The unit is divided into sections. Each section contains instructions, objectives, a bibliography and assignments. You may use the objectives as a guide for your study. The sections include readings, cassette tapes, videotapes, slides, and some exercises for you to perform to evaluate yourself. It is important that you complete the assignments in each section in the order they are presented to facilitate your understanding of the materials. The sections should also be completed in numerical order. When you wish to work on a section check it out from the desk in the media center and work in the media center. Some of the sections include outlines or handouts for you to keep; the rest of the materials will remain in the packets in the media center.
As a dietetic student, you will use interviewing techniques a great deal. It will be beneficial for you to familiarize yourself with interviewing techniques now because you will have the opportunity to work with interviewing in more depth during your senior year. It takes time and practice to learn to use these effectively, but you will have a head start if you learn the "ground work" for interviewing now. The bonus from learning interviewing techniques is that you learn more about how to work with people, and that is what dietetics is all about; PEOPLE!!!!

You will meet back during the regular class period on the fourth week. On Tuesday, _______________ there will be an objective exam consisting of fifty questions. Each question will be worth two points. On Thursday, _______________ we will review the exam and summarize the unit.

GOOD LUCK!
THE DEVELOPMENT AND EVALUATION OF A SELF-INSTRUCTIONAL UNIT ON INTERVIEWING FOR DIETETIC STUDENTS

by

MARSEE L. BATES

B.S., Kansas State University, 1975

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Dietetics, Restaurant, and Institutional Management

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1977
ABSTRACT

The purpose of this research was the development and evaluation of a self-instructional unit in interviewing for dietetic students. The topic of interviewing is a part of the course, "Instructional Competencies for Dietetic Students," in the Department of Dietetics, Restaurant, and Institutional Management at the Kansas State University. The class of twenty-nine students was divided into a control group of sixteen and an experimental group of thirteen. Instruction on interviewing was accomplished simultaneously for the two groups in a four week period. The control group received instruction by the traditional lecture and recitation method. The experimental group received instruction by the self-instruction unit. This unit consisted of reading material, slide-tape, audiotapes and videotapes which were used for the independent study. The instructional material for the unit was divided into seven sections and included the following topics: Introduction to the interview and listening; The question and the interview; The plan, phases and components of an interview; The patient and the interview; The employee and the interview; The counseling and appraisal interview; and The interview in action.

Comparative test instruments were administered to both the control and the experimental group before and after completion of the specific instruction. These tests were designed to evaluate learning in both the cognitive and affective domains. Extensive statistical analysis of test results did not disclose any significant differences between the two methods of instruction. It was concluded that the self-instructional unit as administered was an effective means of instruction.